Ann. Naturhist. Mus. Wien, B	123	99–218	Wien, Februar 2021

On the taxonomy of *Parocyusa*, *Tectusa*, and miscellaneous genera of Oxypodina

(Insecta: Coleoptera: Staphylinidae: Aleocharinae: Oxypodini)

V. Assing*

Abstract

A comparative morphology-based study of types and additional material of species previously assigned to *Tetralaucopora* Bernhauer, 1928, *Tectusa* Bernhauer, 1899, and various other genera of Oxypodina results in numerous taxonomic changes. *Parocyusa* Bernhauer, 1902, previously a synonym of *Tectusa*, is revalidated. The genus has a Holarctic distribution and currently includes 33 described species, 20 species in the West Palaearctic (including Middle Asia), twelve in the East Palaearctic, and two species (one of them probably native in the West Palaearctic) in the Nearctic region. The validity of two species, one from North Europe and one from Japan, requires confirmation and one name is treated as a tentative synonym. Ten of the West Palaearctic species are micropterous or submacropterous and have restricted distributions, whereas the remainder is macropterous and more or less widespread. *Tectusa* presently includes 41 described species, all of them micropterous and with restricted distributions, with the vast majority confined to mountain ranges in the Balkans. The genus is most likely polyphyletic. However, with the type material of several species (including the type species of available genus-group names) currently inaccessible, this issue will have to be addressed in a future revision. New combinations are proposed for all the species previously in *Tetralaucopora* and some previously in *Tectusa* or other genera, nine names are synonymized, and one name is preserved according to Article 23.9 of the Code (ICZN 1999): *Parocyusa* Bernhauer, 1902 = *Tetralaucopora* Bernhauer, 1928, resyn.; *Parocyusa antennata* (Eppelsheim, 1878), comb.n.; *P. baicalensis* (Eppelsheim, 1893), comb.n. = *beijingensis* (Pace, 1999), syn.n., = *hebeiensis* (Pace, 1999), syn.n.; *P. bicolorata* (Assing, 2007), comb.n.; *P. caligula* (Assing, 1996), comb.n.; *P. carnica* Lohse, 1988; *P. championi* (Cameron, 1939), comb.n.; *P. crebrepunctata* (Strand, 1962), comb.n.; *P. fuliginosa* (Casey, 1906), comb.n.; *P. germana* (Cameron, 1939), comb.n. = *rougemonti* (Pace, 1986), syn.n.; *P. hartmanni* (Pace, 2013), comb.n. (ex *Ocalea*); *P. holdhausi* (Bernhauer, 1902); *P. japonica* (Cameron, 1933), comb.n.; *P. knabli* (Bernhauer, 1914) = *tirolensis* Scheerpeltz, 1958, syn.n.; *P. lebedevi* (Bernhauer, 1928), comb.n. = *bucharica* (Bernhauer, 1928), syn.n.; *P. longicollis* (Eppelsheim, 1889), comb.n.; *P. longitarsis* (Erichson, 1839), comb.n., nomen protectum = *attenuata* (Stephens, 1832), nomen oblitum, = *syriaca* (Saulcy, 1865), syn.n.; *P. montana* (Kraatz, 1856), comb.n.; *P. ripicola* (Cameron, 1939), comb.n.; *P. rubicunda* (Erichson, 1837), comb.n. = *cingulata* (Kraatz, 1856), syn.n.; *P. schuelkei* (Assing, 1996), comb.n.; *P. strupiiana* Scheerpeltz, 1958; *P. subcyanea* (Cameron, 1939), comb.n.; *P. yakouensis* (Pace, 2010), comb.n. (ex *Ocyusa*); *P. yunnanensis* (Pace, 1993), comb.n.; "*Ocyusa*" *fuscobrunnea* (Cameron, 1939), comb.n.; "*Cousya*" *quadrisulcata* (Bernhauer, 1935) = *nepalensis* Pace, 2006, syn.n.; *Oxypoda sinonigra* (Pace, 2017), comb.n.; *Oxypoda besucheti* Focarile, 1982. Numerous species of *Parocyusa* and *Tectusa* are (re-) described and illustrated, among them 19 new taxa (nine of *Parocyusa* and ten of *Tectusa*): *Parocyusa dilatata* sp.n. (China: Yunnan); *P. gilvipennis* sp.n. (Kazakhstan); *P. gonggaica* sp.n. (China: Sichuan); *P. gracillima* sp.n. (South Turkey); *P. kahleni* sp.n. (South Slovenia); *P. maculipennis* sp.n. (Northwest Iran); *P. matarata* sp.n. (South Iran); *P. spinosa* sp.n. (China: Gansu); *P. virilis* sp.n. (Caucasus region: Russia, Armenia); *Tectusa acrilobata* sp.n (Erimanthos); *T. apanoica* sp.n. (Menalo); *T. chelmosica* sp.n. (Aroania); *T. fimbriata* sp.n. (Panahaiko); *T. latilobata* sp.n. (Giona, Iti, Parnassos); *T. menaloica* sp.n. (Menalo); *T. parnonica* sp.n. (Parnon); *T. pauli* sp.n. (Aroania); *T. taygetana* sp.n. (Taygetos); *T. vodiasa* sp.n. (Panahaiko). All the newly described *Tectusa* species are distributed in Greece and, except for *T.*

* Volker Assing, Gabelsbergerstr. 2, D-30163 Hannover, Germany. – vassing.hann@t-online.de

latilobata, all of them in the Pelopónnisos. The Carpathian and one Anatolian species previously attributed to *Tectusa* are moved to the genus *Duplocyusa* gen.n. (type species *Oxypoda uludaghensis* Fagel, 1971), with the Carpathian species in the subgenus *Carpocyusa* subgen.n. (type species *Tectusa nigromontis* Zerche, 2007): *Duplocyusa* (*Duplocyusa*) *uludaghensis* Fagel, 1971, comb.n.; *Duplocyusa* (*Carpocyusa*) *nigromontis* (Zerche, 2007), comb.n.; *D.* (*C.*) *bucegiensis* (Zerche, 2007), comb.n.; *D.* (*C.*) *transsylvanica* (Zerche, 2007), comb.n.; *D.* (*C.*) *rosenauensis* (Zerche, 2007), comb.n.; *D.* (*C.*) *ceahlauensis* (Zerche, 2007), comb.n.; *D.* (*C.*) *rodnaensis* (Zerche, 2007), comb.n.; *D.* (*C.*) *calimaniensis* (Zerche, 2008), comb.n.; *D.* (*C.*) *iucasensis* (Zerche, 2008), comb.n. In an appendix on miscellaneous genera of Oxypodina, the following revalidation, synonymies, and new combinations are proposed, and five species are described: *Eurylophus* J. Sahlberg, 1876, revalidated = *Drepasiagonusa* Pace, 2012, syn.n.; *Eurylophus grandiceps* J. Sahlberg, 1876, comb.n. = *feldmanni* (Assing, 2018), syn.n.; *Eurylophus smetanai* (Pace, 2012), comb.n.; *E. procerus* (Assing, 2018), comb.n.; *E. tibeticus* (Assing, 2018), comb.n.; *E. angulatus* (Assing, 2018), comb.n. (all *Eurylophus* species except *E. grandiceps* ex *Drepasiagonusa*); "*Cousya*" *lobifera* Pace, 2015 (probably belonging to an undescribed genus); *Cousya luteipennis* sp.n. (Uzbekistan); *Parocalea tenebricosa* sp.n. (Russian Far East); *Trichoglossina taiwafimbriata* (Pace, 2010), comb.n. (ex *Oxypoda*); *Trichoglossina retunsa* sp.n. (China: Yunnan); *T. tricuspidata* sp.n. (China: Yunnan); *Chinecousya globosa* sp.n. (China: Yunnan). Lectotypes are designated for *Chilopora antennata* Eppelsheim, 1878, *C. baicalensis* Eppelsheim, 1893, *C. ripicola* Cameron, 1939, and *C. championi* Cameron, 1939. The distributions of *Parocyusa rubicunda*, a species with evidently parthenogenetic populations in large parts of its range, and of 17 species of *Tectusa* are mapped. Numerous new records are reported.

Key words: Coleoptera, Staphylinidae, Aleocharinae, Oxypodini, Oxypodina, *Parocyusa*, *Tetralaucopora*, *Tectusa*, Palaearctic region, Holarctic region, new genera, new subgenera, new species, new combinations, new synonymies, revalidation, lectotype designations, distribution, catalogues, parthenogenesis, new records, distribution maps.

Zusammenfassung

Eine vergleichend-morphologische Untersuchung von Typen und weiterem Material von Arten, die bislang *Tetralaucopora* Bernhauer, 1928, *Tectusa* Bernhauer, 1899 und verschiedenen anderen Gattungen der Oxypodina zugeordnet wurden, ergab zahlreiche taxonomische Änderungen. *Parocyusa* Bernhauer, 1902, zuvor Synonym von *Tectusa*, wird revalidiert. Die Gattung ist holarktisch verbreitet und enthält derzeit 33 beschriebene Arten, von denen zwei in der Nearktis (eine davon wahrscheinlich adventiv und ursprünglich westpaläarktisch), 20 Arten in der Westpaläarktis (einschließlich Mittelasien) und zwölf in der Ostpaläarktis vorkommen. Ein Name wird vorläufig als Synonym betrachtet. Zehn der westpaläarktischen Arten haben reduzierte Hinterflügel und sind regional endemisch, während die übrigen Arten geflügelt und mehr oder weniger weit verbreitet sind. *Tectusa* enthält 41 beschriebene, durchweg ungeflügelte und endemische Arten, die mit wenigen Ausnahmen auf dem Balkan verbreitet sind. Die Gattung ist wahrscheinlich polyphyletisch. Allerdings ist das Typenmaterial einer Reihe von Arten (darunter die Typusarten der verfügbaren Namen der Gattungsgruppe) derzeit nicht zugänglich, so dass genauere Untersuchungen und sich daraus ergebende nomenklatorische Änderungen einer zukünftigen Revision vorbehalten bleiben. Für alle zuvor *Tetralaucopora* und einige *Tectusa* oder anderen Gattungen zugeordnete Arten ergeben sich neue Binomina, neun Namen werden synonymisiert und ein Name wird durch Anwendung von Artikel 23.9 (ICZN 1999) konserviert: *Parocyusa* Bernhauer, 1902 = *Tetralaucopora* Bernhauer, 1928, resyn.; *Parocyusa antennata* (Eppelsheim, 1878), comb.n.; *P. baicalensis* (Eppelsheim, 1893), comb.n. = *beijingensis* (Pace, 1999), syn.n., = *hebeiensis* (Pace, 1999), syn.n.; *P. bicolorata* (Assing, 2007), comb.n.; *P. caligula* (Assing, 1996), comb.n.; *P. carnica* Lohse, 1988; *P. championi* (Cameron, 1939), comb.n.; *P. crebrepunctata* (Strand, 1962), comb.n.; *P. fuliginosa* (Casey, 1906), comb.n., *P. germana* (Cameron, 1939), comb.n. = *rougemonti* (Pace, 1986), syn.n.; *P. hartmanni* (Pace, 2013), comb.n. (ex *Ocalea*); *P. holdhausi* (Bernhauer, 1902); *P. japonica* (Cameron, 1933), comb.n.; *P. knabli* (Bernhauer, 1914) = *tirolensis* Scheerpeltz, 1958, syn.n.; *P. lebedevi* (Bernhauer, 1928), comb.n. = *bucharica* (Bernhauer, 1928), syn.n.; *P. longicollis* (Eppelsheim, 1889), comb.n.; P. *longitarsis* (Erichson, 1839), comb.n., nomen protectum = *attenuata* (Stephens, 1832), nomen oblitum, = *syriaca* (Saulcy, 1865), syn.n.; *P. montana* (Kraatz, 1856), comb.n.; *P. ripicola* (Cameron, 1939), comb.n.; *P. rubicunda* (Erichson, 1837), comb.n. = *cingulata* (Kraatz, 1856), syn.n.; *P. schuelkei* (Assing, 1996), comb.n.; *P. strupiiana* Scheerpeltz, 1958; *P. subcyanea* (Cameron, 1939), comb.n.; *P. yakouensis* (Pace, 2010), comb.n. (ex *Ocyusa*); *P. yunnanensis*

(PACE, 1993), comb.n.; "*Ocyusa*" *fuscobrunnea* (CAMERON, 1939), comb.n.; "*Cousya*" *quadrisulcata* (BERNHAUER, 1935) = *nepalensis* PACE, 2006, syn.n.; *Oxypoda sinonigra* (PACE, 2017), comb.n.; *Oxypoda besucheti* FOCARILE, 1982. Zahlreiche Arten der Gattungen *Parocyusa* und *Tectusa* werden beschrieben (oder redeskribiert) und abgebildet, darunter 19 neue Taxa (neun *Parocyusa*- und zehn *Tectusa*-Arten): *Parocyusa dilatata* sp.n. (China: Yunnan); *P. gilvipennis* sp.n. (Kasachstan); *P. gonggaica* sp.n. (China: Sichuan); *P. gracillima* sp.n. (Südtürkei); *P. kahleni* sp.n. (Südslowenien); *P. maculipennis* sp.n. (Nordwest-Iran); *P. matarata* sp.n. (Süd-Iran); *P. spinosa* sp.n. (China: Gansu); *P. virilis* sp.n. (Kaukasusregion: Russland, Armenien); *Tectusa acrilobata* sp.n (Erimanthos); *T. apanoica* sp.n. (Menalo); *T. chelmosica* sp.n. (Aroania); *T. fimbriata* sp.n. (Panahaiko); *T. latilobata* sp.n. (Giona, Iti, Parnassos); *T. menaloica* sp.n. (Menalo); *T. parnonica* sp.n. (Parnon); *T. pauli* sp.n. (Aroania); *T. taygetana* sp.n. (Taygetos); *T. vodiasa* sp.n. (Panahaiko). Alle neu beschriebenen *Tectusa*-Arten sind in Griechenland und hier, mit Ausnahme von *T. latilobata*, auf der Peloponnes verbreitet. Neun zuvor *Tectusa* zugeordnete Arten aus Anatolien und den Karpathen werden in die Gattung *Duplocyusa* gen.n. (Typusart *Oxypoda uludaghensis* FAGEL, 1971), die Arten aus den Karpathen werden der Untergattung *Carpocyusa* subgen.n. (Typusart *Tectusa nigromontis* ZERCHE, 2007) zugeordnet: *Duplocyusa* (*Duplocyusa*) *uludaghensis* FAGEL, 1971, comb.n.; *Duplocyusa* (*Carpocyusa*) *nigromontis* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *bucegiensis* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *transsylvanica* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *rosenauensis* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *ceahlauensis* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *rodnaensis* (ZERCHE, 2007), comb.n.; *D.* (*C.*) *calimaniensis* (ZERCHE, 2008), comb.n.; *D.* (*C.*) *iucasensis* (ZERCHE, 2008), comb.n. In einem Anhang zu verschiedenen Gattungen der Oxypodina werden folgende Revalidierung, Synonymisierungen und Neukombinationen vorgenommen, und fünf Arten werden beschrieben: *Eurylophus* J. SAHLBERG, 1876, revalidiert = *Drepasiagonusa* PACE, 2012, syn.n.; *Eurylophus grandiceps* J. SAHLBERG, 1876, comb.n. = *Drepasiagonusa feldmanni* (ASSING, 2018), syn.n.; *Eurylophus smetanai* (PACE, 2012), comb.n.; *E. procerus* (ASSING, 2018), comb.n.; *E. tibeticus* (ASSING, 2018), comb.n.; *E. angulatus* (ASSING, 2018), comb.n. (alle *Eurylophus*-Arten außer *E. grandiceps* ex *Drepasiagonusa*); "*Cousya*" *lobifera* PACE, 2015 (vermutlich einer unbeschriebenen Gattung zugehörig); *Cousya luteipennis* sp.n. (Usbekistan); *Parocalea tenebricosa* sp.n. (Russischer Ferner Osten); *Trichoglossina taiwafimbriata* (PACE, 2010), comb.n. (ex *Oxypoda*); *Trichoglossina retunsa* sp.n. (China: Yunnan); *T. tricuspidata* sp.n. (China: Yunnan); *Chinecousya globosa* sp.n. (China: Yunnan). Für *Chilopora antennata* EPPELSHEIM, 1878, *C. baicalensis* EPPELSHEIM, 1893, *C. ripicola* CAMERON, 1939 und *C. championi* CAMERON, 1939 werden Lektotypen designiert. Die Verbreitungsgebiete von *Parocyusa rubicunda*, einer Art mit großflächig parthenogenetischen Populationen, und von 17 *Tectusa*-Arten werden anhand von Karten illustriert. Zahlreiche Neunachweise werden gemeldet.

Introduction

The taxa treated in the present paper have had a remarkably volatile and confusing history of changing systematic concepts, interpretation, taxonomic status, and resulting frequent nomenclatural changes.

When KRAATZ (1856) described *Chilopora*, he originally included three species, *Calodera longitarsis* ERICHSON, 1839, *Tachyusa rubicunda* ERICHSON, 1837, and the newly described *Chilopora cingulata* KRAATZ, 1856, of which FENYES (1918) subsequently designated *C. longitarsis* as the type species. BERNHAUER & SCHEERPELTZ (1926) included five additional species in the genus, one from the East Mediterranean, one from the Caucasus region, one from the East Palaearctic, and two from the Nearctic region. Aside from the Caucasian species (*C. antennata* EPPELSHEIM, 1878), all the species are macropterous.

STRAND (1935) discovered that *Chilopora* KRAATZ, 1856 represented a junior homonym of *Chilopora* HAIME, 1854 (Bryozoa) and replaced the name with *Chiloporata* E. STRAND, 1935. This name change, however, went largely unnoticed or was ignored during the following decades.

Parocyusa was originally made available by BERNHAUER (1902) as a subgenus of *Ocyusa* KRAATZ, 1856 to include only *Ocyusa holdhausi* BERNHAUER, 1902 from South Austria, the type species by monotypy. A second species, *O. knabli* BERNHAUER, 1914 from the Alps, was added by BERNHAUER (1914), so that at the time of the World Catalogue of BERNHAUER & SCHEERPELTZ (1926) *Parocyusa* included two species. More than three decades later, SCHEERPELTZ (1958) treated *Parocyusa* as a distinct genus and described three new species, all of them micropterous and from the Alps: *P. franzi*, *P. strupiiana*, and *P. tirolensis*. A sixth micropterous species was described from the Karnische Alpen by LOHSE (1988).

BERNHAUER (1928) described *Tetralaucopora* as a subgenus of *Chilopora* to accommodate two new macropterous Middle Asian species, *C. lebedevi* and *C. bucharica*, distinguished from the nominal subgenus primarily by an anteriorly impressed abdominal tergite VI. BLACKWELDER (1952) subsequently designated *C. lebedevi* as the type species of *Tetralaucopora*. In his Fauna of British India, CAMERON (1939) adopted BERNHAUER´s concept and included five species in the nominal subgenus and one in *Tetralaucopora*.

In his key to the Central European species of Oxypodini, LOHSE (1974) continued to treat *Chilopora* as a valid name and moved *Parocyusa* to this genus as a subgenus, with the nominal subgenus including the three more widespread, macropterous species *C. longitarsis*, *C. rubicunda*, and *C. cingulata*, and *Parocyusa* comprising the five micropterous species from the Alps. SCHILOW (1979) provided a key to the five European species of the subgenus *Chilopora*, which, aside from the three species recorded from Central Europe, also included the Caucasian *C. antennata* and the North European *C. crebrepunctata* A. STRAND, 1962, and illustrated the genitalia.

A decade later, LOHSE (1989) eventually acknowledged the homonymy of *Chilopora* and synonymized both this name and *Tetralaucopora* with *Parocyusa*, thus also abandoning the previous subgeneric concept. In a second supplement to the key to Central European Oxypodini, LOHSE (1998) added *P. crebrepunctata*, which had been reported also from a German North Sea island.

Tectusa was described by BERNHAUER (1899) as a distinct genus and originally included only *Leptusa difficilis* EPPELSHEIM, 1880 from Bosnia, the type species by monotypy. BERNHAUER (1902) subsequently added another species to the genus, *Leptusa affinis* EPPELSHEIM, 1884 from the North Pelopónnisos, Greece. No additional changes were proposed until the World Catalogue by BERNHAUER & SCHEERPELTZ (1926).

Leptusina was originally described by BERNHAUER (1900) as a distinct genus, with *L. bosnica* BERNHAUER, 1900 as the type species by monotypy. BERNHAUER (1902) subsequently treated the taxon as a subgenus of *Ocyusa* and included three additional species, *Ocyusa caucasica* BERNHAUER, 1902, *O. cartusiana* FAUVEL, 1900 from the West Alps, and *O. longicollis* EPPELSHEIM, 1889 from Italy. Two more species were added by BERNHAUER & SCHEERPELTZ (1926): *Ocyusa ferdinandicoburgi* RAMBOUSEK, 1909 from Bulgaria and *O. leonhardi* BERNHAUER, 1912 from the Ionian island Kefalonía. Additional species were described in, or moved to *Leptusina* by SCHEERPELTZ (1962) and ASSING (1996a, b).

In the following decade, several species were implicitly moved from *Leptusina* to *Tectusa*, partly based on an unpublished manuscript (ZERCHE i.l.), so that, in the first

edition of the Palaearctic Catalogue (Smetana 2004), *Leptusina* was treated as a junior synonym of *Tectusa*. At that time this genus already included 26 species, most of them described from the Balkans, and all of them micropterous and with restricted distributions. Regarding *Parocyusa*, Smetana (2004) did not fully follow Lohse´s latest concept, but retained *Tetralaucopora* as a distinct subgenus, the latter then including 18 species, i. e., those that had previously been assigned to *Chilopora* or *Tetralaucopora*, in the Palaearctic region and the former comprising only five micropterous species from the Alps. *Parocyusa carnica* had already been moved to *Tectusa* by Assing (2002).

Based on Zerche (i.l.), who was preparing a revision of *Tectusa* at that time, Assing & Schülke (2007) synonymized *Parocyusa* with *Tectusa* and reinstated *Tetralaucopora* as a valid genus including *T. longitarsis*, *T. rubicunda*, and allied species. Except for *T. antennata*, all the species in *Tetralaucopora* are macropterous, whereas all the *Tectusa* species are micropterous. Zerche (2007, 2008) moved *Oxypoda montana* Kraatz, 1856 to *Tectusa*, synonymized *T. franzi* with this name, and attributed eight new micropterous species from the Carpathians to *Tectusa*. Aside from some new species and few new combinations, no significant taxonomic changes were proposed in the following years. Thus, in the second edition of the Palaearctic Catalogue (Schülke & Smetana 2015), 47 species were included in *Tectusa*, all of them from the West Palaearctic region, and 20 in *Tetralaucopora*. *Ocyusa cartusiana* Fauvel, 1900 was still listed as *Tectusa*, but had been moved to *Oxypoda* by Zerche (2014). Since 2015, three additional species have been transferred to *Tectusa* and one new species each has been described in *Tectusa* and *Tetralaucopora* (Assing 2016a, 2018a, Assing & Vogel 2019, Pace 2017).

It is well-known that partial or complete secondary flightlessness has evolved independently in countless genera of Staphylinidae. This is particularly true also of Aleocharinae. A reduction of the hind wings, flight muscles, the length of the elytra, and the palisade fringe at the posterior margin of the abdominal tergite VII, often also combined with a reduction of eye size and pigmentation, is especially common in island endemics, in subterranean (endogean and hypogean) species, and in species confined to high-altitude habitats, owing to the respective selection conditions. Moreover, numerous cases of wing poly- and dimorphisms have been documented. It follows that morphological characters associated with flightlessness may be of rather little significance in assessing relationships and that they may easily conceal true phylogenetic affiliations. The suspicion that this may also apply to the *Tectusa*, *Tetralaucopora*, and allied taxa was aroused mainly by three observations, which eventually stimulated and initiated the present revision.

1. When revising the taxonomic status and zoogeography of *Oxypoda besucheti* Focarile, 1982 (Assing 2016a), other species attributed to *Tectusa* from the Alps were compared and included. This study suggested that they did not belong to the same lineage.
2. The Carpathian species described by Zerche (2007, 2008) differed in so many and significant respects, both regarding their external and sexual characters, from the examined *Tectusa* species recorded from other regions that it seemed most likely that the genus represented a polyphyletic taxon.
3. An examination of material of *Tetralaucopora antennata* from the Caucasus region and of *Tectusa knabli* from the Alps revealed that, regarding external characters,

these species are somewhat intermediate between *Tectusa holdhausi* (type species of *Parocyusa*) and winged species of *Tetralaucopora*, in that they have more or less reduced hind wings, but at the same time still show a strong resemblance to species like *T. rubicunda* and *T. longitarsis*.

A systematic study of external characters, mouthparts, and the genitalia eventually revealed that the current systematic concept of the *Tetralaucopora-Tectusa* complex is largely erroneous. It is the primary objective of the present study to disentangle the confusion. It needs to be mentioned, however, that it was not possible to address all the problematic issues. As has been shown in several previous revisions of oxypodine genera (e. g., Assing 1998, 2018a, 2019a), the resolution of an exclusively morphology-based phylogenetic approach may be limited, primarily owing to relatively low intergeneric character variation (i. e., rather high character uniformity) in several lineages of Oxypodini. Of the taxa treated in the present paper, only two *Parocyusa* species (*P. longitarsis* and *P. rubicunda*) were included in the DNA-based phylogenetic study by Osswald et al. (2013). According to this study, the lineage including these two species is the adelphotaxon of *Ilyobates* Kraatz, 1856. Another difficulty encountered in the present revision is the current inaccessibility of relevant material. The type material of several species has been out on loan to a colleague for more than two decades and has not yet been returned to the respective institutions. Repeated requests for a return of this material both by the author and the respective curators in charge have not been successful.

In the systematic and taxonomic sections of the present paper, detailed descriptions and illustrations are generally provided only for new taxa and for poorly known species for which adequate diagnoses and figures are not available in the literature.

Material and methods

The material treated in this study is deposited in the following public and private collections:

BMNH	The Natural History Museum London (M. Barclay)
FMNH	Field Museum of Natural History, Chicago (J. Snyder, M. Turcatel)
HNHM	Hungarian Natural History Museum, Budapest (Gy. Makranczy)
LFC	Laurentian Forestry Centre, Quebec (J. Klimaszewski)
MHNG	Muséum d'Histoire Naturelle, Genève (G. Cuccodoro)
MNB	Museum für Naturkunde, Berlin (incl. coll. Schülke; J. Frisch, M. Schülke)
NHMW	Naturhistorisches Museum Wien (H. Schillhammer)
NME	Naturkundemuseum Erfurt (M. Hartmann)
SDEI	Senckenberg Deutsches Entomologisches Institut (L. Behne)
TLMF	Tiroler Landesmuseum Ferdinandeum, Innsbruck (M. Kahlen)
cAss	author´s private collection
cFel	private collection Benedikt Feldmann, Münster
cGil	private collection G. Gillerfors, Varberg

cGon private collection Andrej Gontarenko, Odessa

cPüt private collection Andreas Pütz, Eisenhüttenstadt

cShm private collection Ludger Schmidt, Neustadt/Rbg.

cWun private collection Paul Wunderle, Mönchengladbach

cZie private collection Wolfgang Ziegler, Rondeshagen

The morphological studies were conducted using Stemi SV 11 and Discovery V12 stereo microscopes (Zeiss) and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using digital cameras (Nikon Coolpix 995, Axiocam ERc 5s), as well as Labscope and Picolay stacking software. The maps were created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, the length of the head from the anterior margin of the clypeus (without anteclypeus) to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the median lobe of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i. e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Zoogeographic terminology is based primarily on LATTIN (1967). The limits of the zoogeographic regions are in accordance with those of SCHÜLKE & SMETANA (2015).

Results

A revision of most of the Palaearctic species previously assigned to *Tetralaucopora* and *Tectusa* revealed that the former is paraphyletic and the latter polyphyletic. As a result, *Parocyusa* is revalidated, *Tetralaucopora* synonymized, and numerous species previously in *Tectusa* are moved to *Parocyusa* or to newly described genera and subgenera. Moreover, seven species-group names are synonymized, 19 species are newly described, and numerous new combinations are proposed.

Genus *Parocyusa* BERNHAUER, 1902

Parocyusa BERNHAUER, 1902: 223, 235; type species: *Ocyusa holdhausi* BERNHAUER, 1902.
Chilopora KRAATZ, 1856: 146 f.; type species: *Calodera longitarsis* ERICHSON, 1839.
Tetralaucopora BERNHAUER, 1928: 20; type species: *Chilopora lebedevi* BERNHAUER, 1928; **resyn.**
Chiloporata E. STRAND, 1935: 285; type species: *Calodera longitarsis* ERICHSON, 1839.

Diagnosis: Species of intermediate size (approximately 2.8–4.5 mm) and slender habitus (e. g., Figs 18, 49, 45, 80). Body densely and finely punctate and with dense and fine pubescence.

Head usually oblong or as long as broad. Legs and maxillary palpi slender. Head posteriorly with carina, but without posterior constriction ("neck"). Antennae (Figs 50, 81–82, 144) slender, very weakly incrassate apically, and with slender antennomeres IV–X, often longer in male than in female; antennomere XI usually sexually dimorphic (exceptions: *P. carnica*, *P. kahleni*), with median constriction at least in male. Labrum

(Figs 4, 14, 33, 48) strongly transverse and with more or less truncate or concave anterior margin. Maxillary palpi (Figs 3, 8, 37, 46) four-jointed, without evident modifications. Labium (Figs 10, 13, 32, 47): ligula slender, incised approximately to middle, the two lobes contiguous basally; labial palpi three-jointed and slender. Mandibles without evident modifications.

Pronotum slender, weakly transverse at most, broadest in anterior half; pubescence of midline directed either posteriad in posterior half to posterior two-thirds and anteriad in anterior third to anterior half (*longitarsis*, *bicolorata*, *matarata*) or posteriad along the entire length of the pronotum, except often very close to anterior margin (remaining examined species).

Elytra broader than pronotum, of variable length, with or without pronounced humeral angles. Hind wings fully developed to completely reduced. Ventral aspect of thorax without distinctive characters. Metatarsomere I slender and elongate, usually longer than the combined length of metatarsomeres II and III.

Abdomen slender; tergites III–V or III–VI with anterior impressions.

♂: posterior margin of sternite VIII (Figs 16, 26, 45, 66, 83) convexly to acutely produced in the middle; median lobe of aedeagus (e. g., Figs 1–2, 5–6, 19, 40, 42–43) rather large in relation to body size, with pronounced dorso-apical lamellae; ventral process usually broad apically, not conspicuously acute in lateral view (for exceptions see below); paramere (e. g., Figs 7–8, 20, 44, 53, 63) with large velum, apical lobe long and slender, basally usually with pronounced acute process facing median lobe (weakly pronounced in *P. caligula*).

♀: posterior margin of sternite VIII (Figs 38, 67) less produced than in male; spermatheca (e. g., Figs 17, 35, 41, 54, 64–65, 73–79) of the usual oxypodine condition, often with rather long and slender proximal portion.

Systematics and taxonomy: *Parocyusa* is distinguished from *Tectusa* particularly by sexually dimorphic and usually more slender antennae, a relatively larger median lobe of the aedeagus with pronounced dorso-apical lamellae, and a long and slender apical lobe of the paramere with an acute basal process. Additional differences are generally larger size, a more slender convex pronotum, generally denser punctation and pubescence of the body, and a more transverse labrum. All these characters suggest that *Parocyusa holdhausi* and several other wingless high-altitude species from the Alps belong to the same lineage as *P. longitarsis*, *P. rubicunda*, and other winged species previously attributed to *Tetralaucopora*. Moreover, it may be concluded that the reduction of hind wings and other flight-associated characters evolved several times in *Parocyusa*, at least once in the *P. holdhausi-montana-knabli-strupiiana* (Alps) and once in the *P. antennata* clade (Caucasus region). *Parocyusa knabli* displays a transitional condition in that this species still possesses hind wings, though of reduced length.

While the *P. holdhausi* clade and *P. antennata* share all the constituting characters with *P. longitarsis* and other winged species of the genus, the same does not apply to the clade including *P. schuelkei*, *P. caligula*, *P. longicollis*, *P. carnica*, and *P. kahleni*. These micropterous species are characterized by an apically acute ventral process of the aedeagus (lateral view) and by a relatively short male antennomere XI. Moreover, the latter three species lack a median constriction of antennomere XI, and in *P. caligula* the basal acute

process of the apical lobe of the paramere is weakly pronounced. Thus, regarding the shape of the ventral process of the aedeagus and the shape of the male antennomere XI, *P. longicollis*, *P. carnica*, and *P. kahleni* are more similar to species of *Tectusa* than to the *P. holdhausi* lineage. Nevertheless, they are assigned to *Parocyusa* based on the following reasoning: Among the species of this group, *P. schuelkei* and *P. caligula* share a conspicuous synapomorphy, the presence of a pair of filiform processes at the base of the ventral process of the aedeagus. Both of them have the male antennomere XI constricted, as well as mouthparts and an apical lobe of the paramere of the *Parocyusa* condition, and externally they strongly resemble species of the *P. holdhausi* clade. Consequently, in can be concluded that the shape of the ventral process of the aedeagus (acute apex) represents either a primitive or a homoplastic condition and that the weakly pronounced basal process of the apical lobe of the paramere of *P. caligula* should be interpreted as a secondary reduction. The median lobe of the aedeagus of *P. carnica*, *P. longicollis*, and *P. kahleni* is of similar general shape as that of *P. schuelkei* and *P. caligula*. This observation, the presence of an acute process at the base of the apical lobe of the paramere, and zoogeographic evidence suggest that they are more closely related to species of *Parocyusa* than to those of *Tectusa*. However, this morphology-based argumentation should be tested through a molecular approach.

Aside from the anteriorly impressed abdominal tergite VI, no additional significant characters distinguishing *P. lebedevi* from the *P. longitarsis*, *P. holdhausi*, and other species without such an impression were found which would evidence the presence of two distinct lineages within the genus. Moreover, other external and sexual characters do not suggest that *P. lebedevi* is most closely allied to *P. championi* (CAMERON, l939), the only other *Parocyusa* species with an anteriorly distinctly impressed tergite VI. The presence or absence of an impression on the abdominal tergite VI is subject to intrageneric variation also in other Oxypodini (e. g., *Calodera* MANNERHEIM, 1830; *Echidnoglossa* WOLLASTON, 1864; *Euryalea* MULSANT & REY, 1875; *Ocyusa* KRAATZ, 1856) (ASSING 1996, 2003a, 2019a; ASSING & SCHÜLKE 2001; ASSING & WUNDERLE 1997). In consequence, *Tetralaucopora* is again synonymized with *Parocyusa*.

New combinations are proposed for practically all the species assigned to *Parocyusa*. Most of them are the result of the revalidation of *Parocyusa*, the proposed synonymy of *Tetralaucopora*, and the revised concepts and separation of *Parocyusa* and *Tectusa*. Some, however, result from incorrect original generic assignments, especially of species described by Roberto Pace. Of the five names made available by this author and still in *Parocyusa*, two were originally assigned to *Ocyusa*, one to *Calodera*, one to *Tetralaucopora*, and one to *Ocalea* ERICHSON, 1837; three of these names are now synonyms. And two additional names originally assigned to *Tetralaucopora* by PACE (2006, 2017), one of them now a synonym, are excluded from the genus.

Identification: *Parocyusa* species are most reliably identified based on the shape of the median lobe of the aedeagus. Owing to its general uniformity and simple structure in combination with more or less pronounced intraspecific variation, the spermatheca is of little taxonomic significance. While most species are highly similar in colouration (body often more or less uniformly dark; legs usually yellow) and punctation (generally fine and dense), some may be identified by distinctive colouration, punctation, the presence of an anterior impression on tergite VI, or the pubescence pattern of the pronotum.

Diversity, distribution, and natural history: *Parocyusa* currently includes 33 described species. The genus has a Holarctic distribution, with two species (one of them probably adventive) distributed in the Nearctic region and the remainder in the Palaearctic region. Twelve species have been recorded from the East Palaearctic and 20 species from the West Palaearctic region including Middle Asia. One of the West Palaearctic species has doubtfully been reported also from the East Palaearctic. There is a third species in the Nearctic region (one female from Washington State examined), but this species is most likely undescribed. Ten of the West Palaearctic species are micropterous or submacropterous (only *P. knabli*) and distributed in the Alps (five species), Slovenia (one species), the Apennines and South Italy (two species), North Spain (one species), and the Caucasus region (one species). The widespread macropterous species are generally found in various wetland habitats, especially banks of rivers and streams and lakeshores. Except for one species from South Italy, the wingless species in the Alps, the Apennines, North Spain, and the Caucasus are confined to high-altitude and/or microclimatically cold habitats.

Checklist of the species of *Parocyusa*

The species preceded by an asterisk (*) have not been revised. Their generic assignment is based on original descriptions and/or previous assignments and consequently tentative. Micropterous and submacropterous species with restricted distributions are preceded by a "+".

Species	Distribution
+*antennata* (Eppelsheim, 1878), **comb.n.**	Caucasus region: Georgia, South Russia
baicalensis (Eppelsheim, 1893), **comb.n.** = *beijingensis* (Pace, 1999), **syn.n.** = *hebeiensis* (Pace, 1999), **syn.n.**	Russia: East Siberia, Far East; China: Beijing, Hebei
bicolorata (Assing, 2007), **comb.n.**	Iran, Israel
+*caligula* (Assing, 1996), **comb.n.**	South Italy: Basilicata
+*carnica* Lohse, 1988	Austria: Kärnten: Karnische Alpen
championi (Cameron, 1939), **comb.n.**	North India: Uttarakhand; Afghanistan
crebrepunctata (Strand, 1962), **comb.n.**	Norway, Sweden, Finland, North Germany
dilatata **sp.n.**	China: Yunnan
fuliginosa (Casey, 1906) **comb.n.**	Nearctic: U.S.A.; Canada
germana (Cameron, 1939), **comb.n.** = *rougemonti* (Pace, 1986), **syn.n.**	North India: Uttarakhand; Nepal
gilvipennis **sp.n.**	Kazakhstan
gonggaica **sp.n.**	China: Sichuan: Gongga Shan
gracillima **sp.n.**	South Turkey: Hatay
hartmanni (Pace, 2013), **comb.n.**	Nepal
+*holdhausi* (Bernhauer, 1902)	Austria: Kärnten: Obir, Koralpe, Karawanken
japonica (Cameron, 1933), **comb.n.**	Japan: Kyushu
+*kahleni* **sp.n.**	South Slovenia: Kočevski rog
+*knabli* (Bernhauer, 1914) = *tirolensis* Scheerpeltz, 1958, **syn.n.**	North, Central, and East Alps

Species	Distribution
lebedevi (BERNHAUER, 1928), **comb.n.** = *bucharica* (BERNHAUER, 1928), **syn.n.**	Middle Asia: Turkmenistan, Tajikistan
+*longicollis* (EPPELSHEIM, 1889), **comb.n.**	Italy: Toscana
longitarsis (ERICHSON, 1839), **comb.n.** = *attenuata* (STEPHENS, 1832) = *femoralis* (HEER, 1839) = *syriaca* (SAULCY, 1865), **syn.n.** = *subnitida* (MULSANT & REY, 1875)	West Palaearctic; China (Shanxi)?; North Korea?
maculipennis **sp.n.**	Northwest Iran
matarata **sp.n.**	South Iran
+*montana* (KRAATZ, 1856), **comb.n.** = *franzi* SCHEERPELTZ, 1958	Austria: Steiermark: Seckauer Alpen
ripicola (CAMERON, 1939), **comb.n.**	North India: Uttarakhand
rubicunda (ERICHSON, 1837), **comb.n.** = *oblita* (HEER, 1839) = *cingulata* (KRAATZ, 1856), **syn.n.** ? = *americana* (CASEY, 1906)	West Palaearctic; Middle Asia; North America (adventive?)
+*schuelkei* (ASSING, 1996), **comb.n.**	North Spain
spinosa **sp.n.**	China: Gansu
*+*strupiiana* SCHEERPELTZ, 1958	Austria: Kärnten: Gailtaler Alpen
subcyanea (CAMERON, 1939), **comb.n.**	North India: Uttarakhand; Nepal
virilis **sp.n.**	Caucasus region: South Russia, Armenia
yakouensis* (PACE, 2010), **comb.n.	Taiwan
yunnanensis* (PACE, 1993), **comb.n.	China: Yunnan

Key to species

Distinguishing characters of species for which material was not available (*P. strupiiana*, *P. yakouensis*, *P. yunnanensis*) are based on literature data (LOHSE 1974, PACE 1993, 2010).

1 Micropterous species (Fig. 18). West Palaearctic (Alps, Italy, North Spain, Caucasus). 2

– Macropterous species. 11

2 Legs blackish-brown to blackish with yellow tarsi. 3

– Legs of paler colour, yellow to brown. 4

3 Body of less slender habitus (Fig. 21). Pronotum distinctly transverse, weakly tapering in posterior half, broadest near middle (Fig. 22). Aedeagus and spermatheca as in Figs 27–28, 31. South Slovenia: Kočevski Rog. ..... ***kahleni* sp.n.**

– Body of slender habitus. Pronotum as long as broad, strongly tapering in posterior half. South Austria: Kärnten: Gartnerkofel. ..... ***carnica***

4 Species distributed in the Alps. 5

– Species distributed in the Apennines, South Italy, North Spain, and the Caucasus region. 8

5 Species of doubtful status known only from the type locality Hoher Staff (Austria: Gailtaler Alpen). ..... ***strupiiana***

– Distribution different. 6

6 Elytra longer, > 0.9 times as long as pronotum; hing wings present (though of reduced length). Eyes larger, significantly larger than antennomere X in cross-section. Median lobe of aedeagus as in Figs 5–6. Relatively widespread in the region from Wettersteingebirge across Tirol to western Kärnten and the environs of Bressanone. ..... ***knabli***

– Elytra shorter, 0.65–0.75 times as long as pronotum; hind wings completely reduced. Eyes smaller, of similar size as antennomere X in cross-section (or slightly larger). Distribution confined to mountain ranges in South Kärnten and Steiermark. 7

7 Body more slender and somewhat glossy. Pronotum 1.00–1.05 times as broad as long and 1.1–1.2 times as broad as head, broadest in anterior half and distinctly tapering posteriad; lateral margins straight to weakly concave in posterior half. Abdomen with dense and fine punctation clearly visible in the moderately pronounced microsculpture even on tergites VI and VII; microsculpture composed of moderately fine transverse meshes. Male antennomere XI longer, approximately as long as the combined length of antennomeres VIII–X, or nearly so. Median lobe of aedeagus as in Figs 1–2. Endemic to mountains of southern Kärnten (Obir, Koralpe, Karawanken). ..... ***holdhausi***

– Body of more robust habitus (Fig. 18) and nearly matt. Pronotum approximately 1.1 times as broad as long and 1.20–1.25 times as broad as head, broadest in or anterior to middle, not more strongly tapering posteriad than anteriad; lateral margins weakly convex in posterior half (dorsal view). Abdomen, in particular tergites VI–VII with extremely fine and extremely dense punctation barely visible in the pronounced microsculpture; microsculpture composed of extremely fine meshes barely visible even at high magnification (100 x). Male antennomere XI shorter, approximately as long as the combined length of antennomeres IX and X. Median lobe of aedeagus as in Fig. 19. Known only from Seckauer Alpen in Steiermark. ..... ***montana***

8 Head and pronotum brown to blackish-brown; elytra yellowish-brown to brown. Forebody at least 1.5 mm long. Absent from Italy. 9

– Forebody blackish-brown to black and 1.3–1.5 mm long. Italy. 10

9 Antennomere XI relatively short, approximately as long as the combined length of antennomeres IX and X. Pronotum transverse. Aedeagus and spermatheca as illustrated in Assing (1996a). North Spain: Sierra de la Demanda. ..... ***schuelkei***

– Antennomere XI elongate, approximately as long as the combined length of antennomeres VIII–X (♂) or nearly so (♀). Pronotum approximately as long as broad. Aedeagus as in Fig. 40. Caucasus region. ..... ***antennata***

10 Head widened behind eyes. Forebody with pronounced microreticulation and practically matt. Aedeagus with pair of needle-shaped processes at base of ventral process (Assing 1996b: figure 2). South Italy: Basilicata. ..... ***caligula***

– Head not widened behind eyes. Forebody with shallow microreticulation and some shine. Aedeagus without pair of processes at base of ventral process (Assing 1996b: figure 1). Toscana. ..... ***longicollis***

11 Pronotum with pubescence of midline directed anteriad in anterior third to anterior half. Median lobe of aedeagus conspicuously large (approximately 0.8 mm long) and of highly distinctive shape (Figs 53–54). Widespread in the West Palaearctic

region; very doubtfully recorded also from the East Palaearctic. ..... ***longitarsis***

– Pronotum with pubescence of midline usually directed posteriad (sometimes anteriad only very close to anterior margin), except in two species with distinctly bicoloured elytra from the Middle East. Median lobe of aedeagus smaller (exception: *P. virilis*) and of different shape. 12

12 Species distributed in the West Palaearctic region including Middle Asia and North America. 13

– Species distributed in the East Palaearctic region. 22

13 Abdominal tergite VI with distinct anterior impression. Forebody yellowish to reddish. Aedeagus as illustrated in ASSING & SCHÜLKE (2007). Middle Asia. ..... ***lebedevi***

– Abdominal tergite VI without, or with very indistinct anterior impression. Forebody mostly of darker colouration. 14

14 Species from North America with conspicuously elongate (approximatelly three times as long as broad) male antennomere XI. Ventral process of aedeagus blunt in lateral view (Fig. 323). ..... ***fuliginosa***

– Species from the Palaearctic region or, if from North America (*P. rubicunda*), with shorter apical antennomere. Ventral process of aedeagus of different shape. 15

15 Pronotum with extremely fine and extremely dense punctation, practically matt (as in *P. longitarsis*). Pubescence in anterior fourth to third directed anteriad in species from Middle East. 16

– Pronotum with fine and dense punctation, but some shine. Pubescence of pronotal midline entirely directed posteriad, or anteriad only very close to anterior margin. 18

16 Elytra of uniformly dark-brown to blackish colouration. Aedeagus as in Figs 55. Species from North Europe. ..... ***crebrepunctata***

– Elytra yellow or red with black markings. Pubescence in anterior fourth to third directed anteriad. Middle East. 17

17 Head, pronotum, and abdomen blackish; elytra yellow with the scutellar region and an oblong spot at lateral margins infuscate. Aedeagus as illustrated in Assing (2007). Iran, Israel. ..... ***bicolorata***

– Head and pronotum brown; abdomen blackish-brown; elytra reddish. Aedeagus as illustrated in Figs 51–52. South Iran. ..... ***matarata*** **sp.n.**

18 Pronotum (Fig. 93) very slender and distinctly oblong, approximately 1.1 times as long as broad. Elytra (Fig. 93) shorter, approximately 0.85 times as long as pronotum. Aedeagus as in Figs 95–96. Central southern Anatolia. ..... ***gracillima*** **sp.n.**

– Pronotum approximately as long as broad or weakly transverse. Elytra longer in relation to pronotum. 19

19 Elytra bicoloured with a broad diagonal blackish band extending from scutellar region to postero-lateral portions; humeral and postero-sutural portions yellow to red (Fig. 98). Antennae shorter; antennomeres IV approximately as broad as long and V weakly transverse. Aedeagus as in Figs 101–102. Northwest Iran. ... ***maculipennis*** **sp.n.**

– Elytra not distinctly bicoloured. Antennae in species distributed in the Middle East and the Caucasus region longer and more slender; antennomeres IV oblong and V oblong or as long as broad. 20

20 Elytra bright yellow, strongly contrasting with the blackish-brown to blackish head and pronotum (Fig. 104). Antennae more massive; antennomeres IV approximately as broad as long and V transverse. Aedeagus as in Figs 106–107. Kazakhstan. ***gilvipennis* sp.n.**

– Elytra of darker colouration, reddish to blackish. Antennae more slender; antennomeres IV oblong and V oblong or as long as broad. 21

21 Widespread in the West Palaearctic region including Middle Asia; also recorded from North America (probably adventive). Populations in the north generally parthenogenetic. Aedeagus as in Figs 68–72. ..... ***rubicunda***

– Distribution confined to the Caucasus region. Aedeagus as in Figs 84–87. .... ***virilis* sp.n.**

22 Species from the Himalayan region westwards to Afghanistan. 23

– Distribution different. Body dark-brown to blackish with yellow legs. 27

23 Body blackish; forebody with bluish hue. Aedeagus as in Fig. 130. North India; Nepal. ..... ***subcyanea***

– Forebody without bluish hue. 24

24 Abdominal tergites III–VI with pronounced, deep and coarsely punctate anterior impressions (Fig. 133). Posterior halves of tergites III–VII with extremely fine and not particularly dense punctation, very glossy (Fig. 133). Pronotum (Fig. 132) with finely granulose punctation. Pronotum bright-reddish and elytra reddish-yellow, strongly contrasting with the blackish-brown head and abdomen (Fig. 131). Aedeagus as in Figs 150–161. Afghanistan; India: Uttarakhand. ..... ***championi***

– Abdominal tergite VI with indistinct anterior impression at most. Posterior halves of tergites III–VII with dense and moderately fine punctation. Punctation of pronotum not granulose. Colouration different. 25

25 Colouration of body uniformly blackish. Antennae longer and more slender; antennomere IV distinctly oblong. Aedeagus as in Figs 127–128. Nepal. ..... ***hartmanni***

– Elytra yellowish to brown. Antennae shorter; antennomere IV as long as broad or indistinctly oblong at most. 26

26 Head and pronotum with extremely fine and extremely dense punctation and with pronounced microsculpture rendering the surface practically matt (Fig. 120). Abdomen with finer and denser punctation. Aedeagus as in Figs 122–123. North India: Uttarakhand; Nepal. ..... ***germana***

– Head and pronotum with less fine and less dense punctation and with shallow microsculpture; surface with some shine (Fig. 110). Abdomen with less dense and less fine punctation (Fig. 111). Aedeagus as in Figs 113–114. North India: Uttarakhand. ..... ***ripicola***

27 Distribution: Taiwan. Aedeagus and spermatheca as in PACE (2010: figures 64–66). ..... ***yakouensis***

– Distribution different. 28

28 Forebody with extremely fine and extremely dense punctation, practically matt. 29

– Forebody with fine and dense punctation, but with some shine. Distribution: Yunnan, China. 32

29 Species of more robust habitus (Fig. 142). Pronotum (Fig. 143) distinctly transverse, approximately 1.1 times as broad as long. Forebody dark-brown to blackish-brown (Fig. 143). Aedeagus as in Figs 145–146. China: Sichuan: Gongga Shan. .. ***gonggaica* sp.n.**

– Species of more slender habitus. Pronotum < 1.1 times as broad as long. 30

30 Aedeagus unknown. Spermatheca as in Fig. 325. Japan (Kyushu). ..... ***japonica***

– Species from East Russia and China. 31

31 Median lobe of aedeagus shaped as in Figs 139–141; ventral process with numerous minute spines in baso-lateral portions. China: Gansu. ..... ***spinosa***

– Median lobe of aedeagus shaped as in Figs 60–62; ventral process without minute spines in baso-lateral portions. Russia: East Siberia and Far East; China: Beijing, Hebei. ..... ***baicalensis***

32 Ventral process of aedeagus strongly dilated subapically in ventral view and with narrower crista apicalis in lateral view (Figs 152–153). ..... ***dilatata*** **sp.n.**

– Ventral process of aedeagus not dilated subapically in ventral view and with broader crista apicalis in lateral view (PACE 1993: figures 164–165). ..... ***yunnanensis***

The species of *Parocyusa*

Parocyusa holdhausi (BERNHAUER, 1902)

(Figs 1–4, 10–12)

Ocyusa (*Parocyusa*) *holdhausi* BERNHAUER, 1902: 235.
Ocyusa (*Parocyusa*) *holdhausi*: BERNHAUER & SCHEERPELTZ (1926).
Parocyusa holdhausi: SCHEERPELTZ (1958).
Chilopora (*Parocyusa*) *holdhausi*: LOHSE (1974).
Parocyusa holdhausi: LOHSE (1989).
Parocyusa (*Parocyusa*) *holdhausi*: SMETANA (2004).
Tectusa holdhausi: ZERCHE (2007, 2008).
Tectusa holdhausi: ASSING & SCHÜLKE (2007).
Tectusa holdhausi: SCHÜLKE & SMETANA (2015).

Material examined: AUSTRIA: 1 ♂, 1 ♀, Kärnten, Karawanken, Vellach, Sanntaler Sattel, 2000 m, 22.IX.1992, leg. Siede (cAss, cWun); 1 ♂, Kärnten, Obir, 1900 m, 12.VII.1978, leg. Lompe (cAss); 1 ♂, 1 ♀, Kärnten, Hochobir, 1850 m, sifted near snow, 11.V.1990, leg. Wunderle (cWun).

Parocyusa holdhausi is the type species of the genus. Based on the structure of the mouthparts (Figs 3–4, 10), on external, and on the sexual characters (Figs 1–2, 11–12), this micropterous species does not belong to *Tectusa*, but is congeneric with the species assigned to *Parocyusa* below. The distribution is confined to some mountain ranges in the southeastern Alps (Karawanken, Obir, Koralpe).

Parocyusa knabli (BERNHAUER, 1914)

(Figs 5–9, 13–17)

Ocyusa (*Parocyusa*) *knabli* BERNHAUER, 1914: 41.
Ocyusa (*Parocyusa*) *knabli*: BERNHAUER & SCHEERPELTZ (1926).
Parocyusa knabli: SCHEERPELTZ (1958).
Chilopora (*Parocyusa*) *knabli*: LOHSE (1974).
Parocyusa knabli: LOHSE (1989).
Parocyusa (*Parocyusa*) *knabli*: SMETANA (2004).
Tectusa knabli: ASSING & SCHÜLKE (2007).
Tectusa knabli: SCHÜLKE & SMETANA (2015).
Parocyusa tirolensis SCHEERPELTZ, 1958: 103 ff.; **syn.n.**

Type material examined: **Paratypes:** 2 ♀♀: "Nordkette, Rasen, 13.11.38 / Umg. Innsbruck, Ti. Pechlaner / *Parocyusa tirolensis* Scheerp. 1958 / Paratypus *Parocyusa tirolensis* Scheerpeltz, rev. V. Assing 2020 / *Parocyusa knabli* (Bernhauer), det. V. Assing 2020" (TLMF); 1 ♀: same data, but "Nordkette, Rasen, 6.11.38" (TLMF); 1 ♂ [teneral], 1 ♀: same data, but "Nordkette, 20.10.35" (TLMF).

Additional material examined: AUSTRIA: Tirol: 1 ♂, Haggen im Sellrain, Stat. Kraspes, 2150 m, 10.III.1943, leg. von Sydow (cAss); 2 ♀♀, Innsbruck env., Nordkette, alpine grassland, 13.XI.1938, leg. Pechlaner (TLMF, cAss); 2 ♂♂, 1 ♀, Nordkette, 27.X.1937, leg. Pechlaner (TLMF); 1 ♂, 1 ♀, Nordkette, alpine grassland, 6.XI.1938, leg. Pechlaner (TLMF); 2 ♂♂, same data, but 13.XI.1938 (NHMW, TLMF); 1 ♀, same data, but 13.XI.1938 (TLMF); 1 ♂ [teneral], same data, but 22.IX.1935 (TLMF); 1 ♂, Nordkette, 2300 m, 18.XI.1938, leg. Pechlaner (cAss); 1 ♀ [teneral], Innsbruck env., Arzlerberg, 11.VIII.1926, leg. Wörndle (TLMF); 1 ♂ [teneral], Arzlerreise, 22.VII.1925, leg. Wörndle (TLMF); 1 ♀ [teneral], same data, but 6.X.1924 (TLMF); 1 ♂, 2 ♀♀ [all teneral], same data, but 18.VII.1925 (TLMF); 2 ♂♂ [teneral], same data, but 11.VIII.1926 (TLMF); 1 ♂ [teneral], Arzlerscharte, 22.IX.1935 (TLMF).

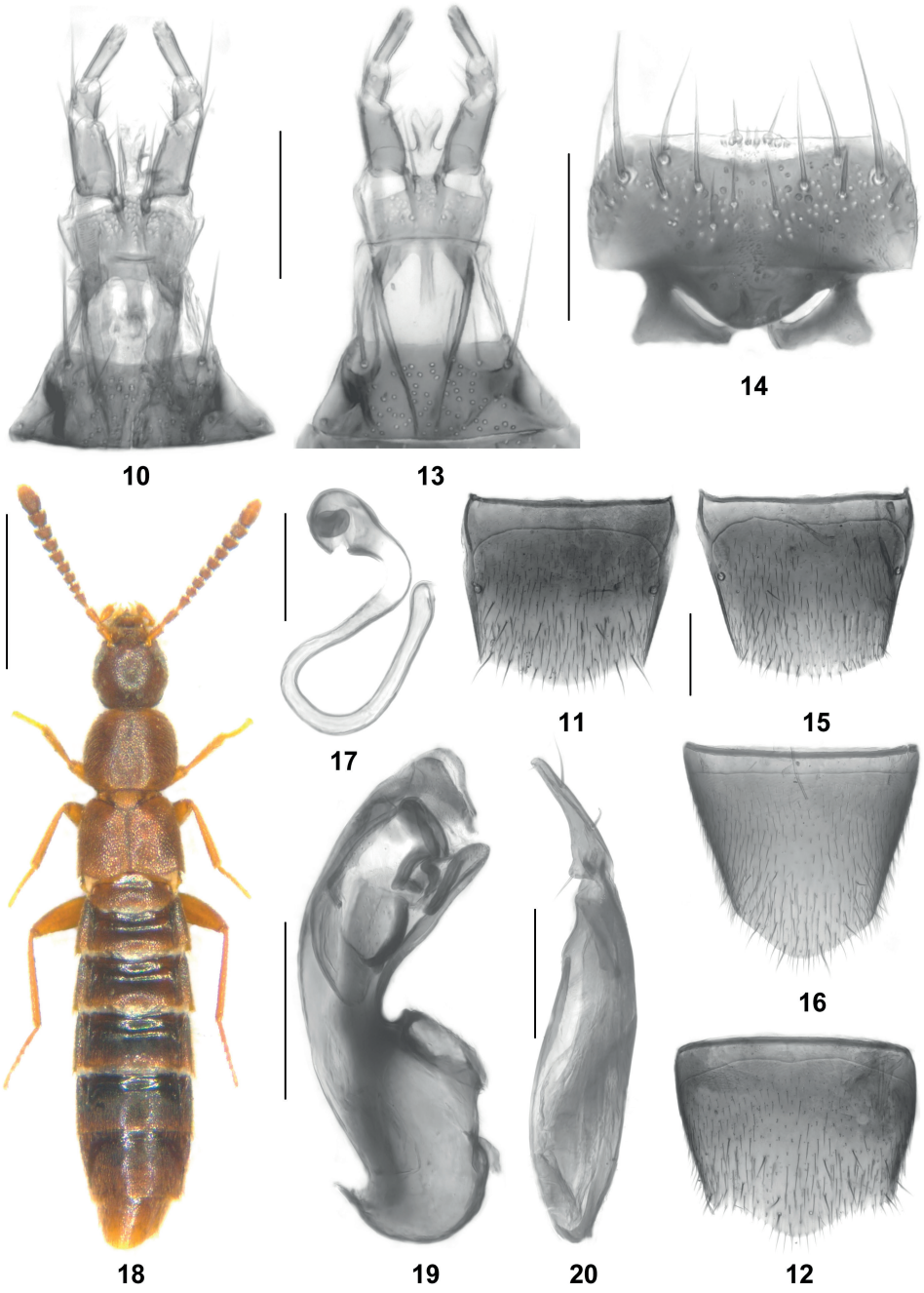
The original description of *P. knabli* is based on a unique holotype collected "bei Umhausen im Oetztal (Rennebach) in Tirol" (Bernhauer 1914), that of *P. tirolensis* on an unspecified number of type specimens found by Pechlaner "im Gebiet der Nordkette bzw. Solsteinkette nördlich von Innsbruck" in "1935" and "in den folgenden Jahren (Typus)", on one paratype collected by Ihssen "im Wetterstein-Gebirge (Zugspitzgebiet)" and on type specimens taken by von Peez in several localities "in der Umgebung von Brixen" (Scheerpeltz 1958). It follows that the specimens standing as *P. tirolensis* in the Pechlaner collection and collected in 1935 and after can be regarded as paratypes. The holotypes of both *P. knabli* and *P. tirolensis* have been out on loan to a colleague for approximately 25 years. Requests for a return of this material have not been successful.

Parocyusa knabli was subsequently recorded also from additional localities in Tirol (Kaunser Alpen, Stubaier Alpen, Nordkette to the north of Innsbruck, Wettersteingebirge) and from the southern Tauern in western Kärnten. On several occasions, it was collected together with, and under similar circumstances as *P. tirolensis*, and the distributions of both species were practically identical (Scheerpeltz 1958, Horion 1967, Lohse 1974).

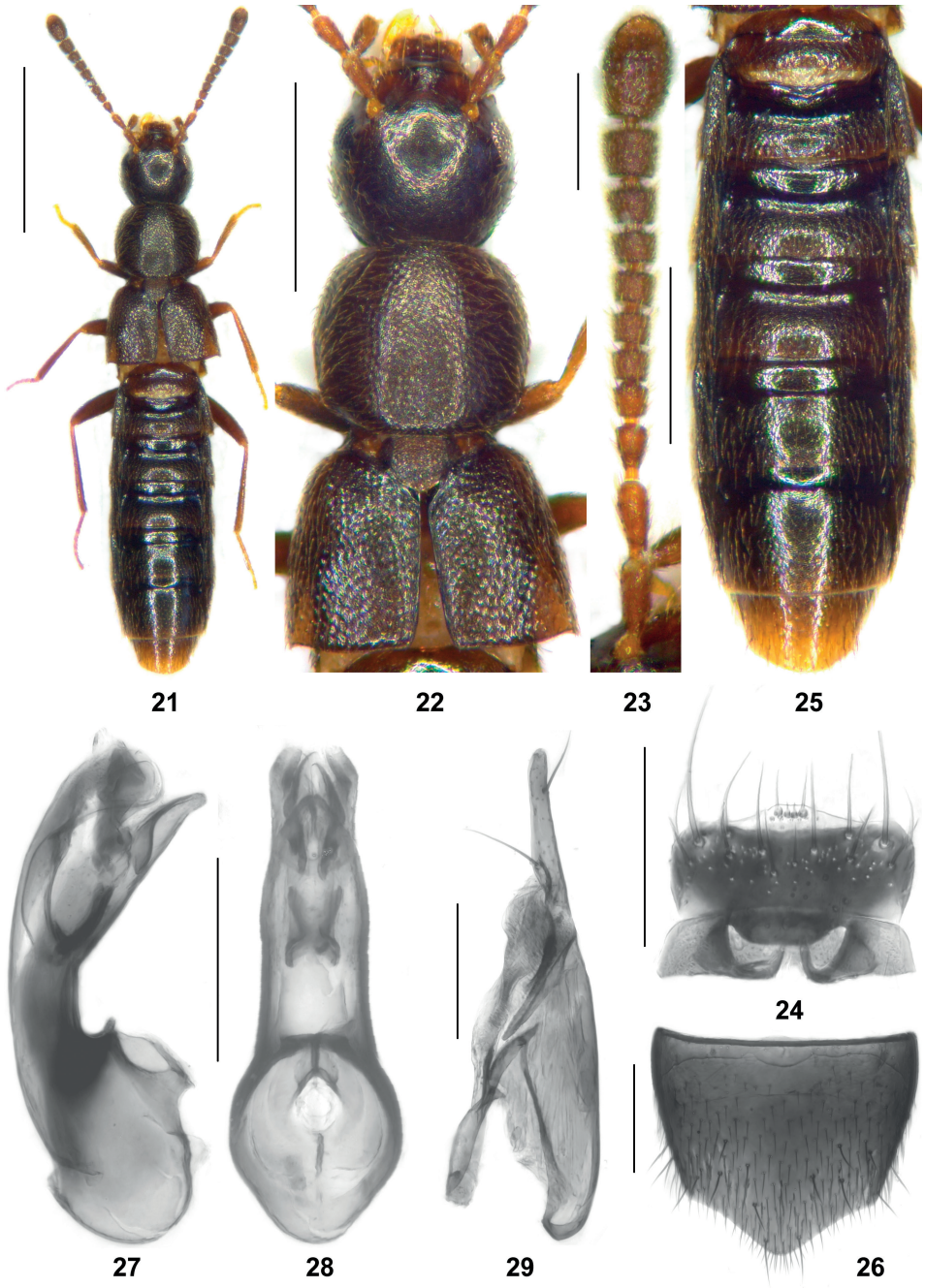
According to Scheerpeltz (1958) and Lohse (1974), *P. tirolensis* is distinguished from *P. knabli* by slightly larger body size, a slightly broader and more transverse pronotum, slightly smaller eyes, and slightly more distinct punctation of the elytra. A comparison of the available paratypes of *P. tirolensis* with the material of *P. knabli* revealed no significant differences in external and the male sexual characters suggesting that the two series should represent distinct species. In fact, the material of *P. knabli* is predominantly composed of teneral males, whereas that of *P. tirolensis* is nearly exclusively represented by mature females. Therefore, based on morphological, zoogeographic, and ecological evidence, both names refer to the same species. In consequence, *P. tirolensis* is placed in synonymy with *P. knabli*.

Unlike other flightless *Parocyusa* species, *P. knabli* is submacropterous, i. e., it still has hind wings of reduced length. The mouthparts and the sexual characters are illustrated in Figs 5–9, 13–17.

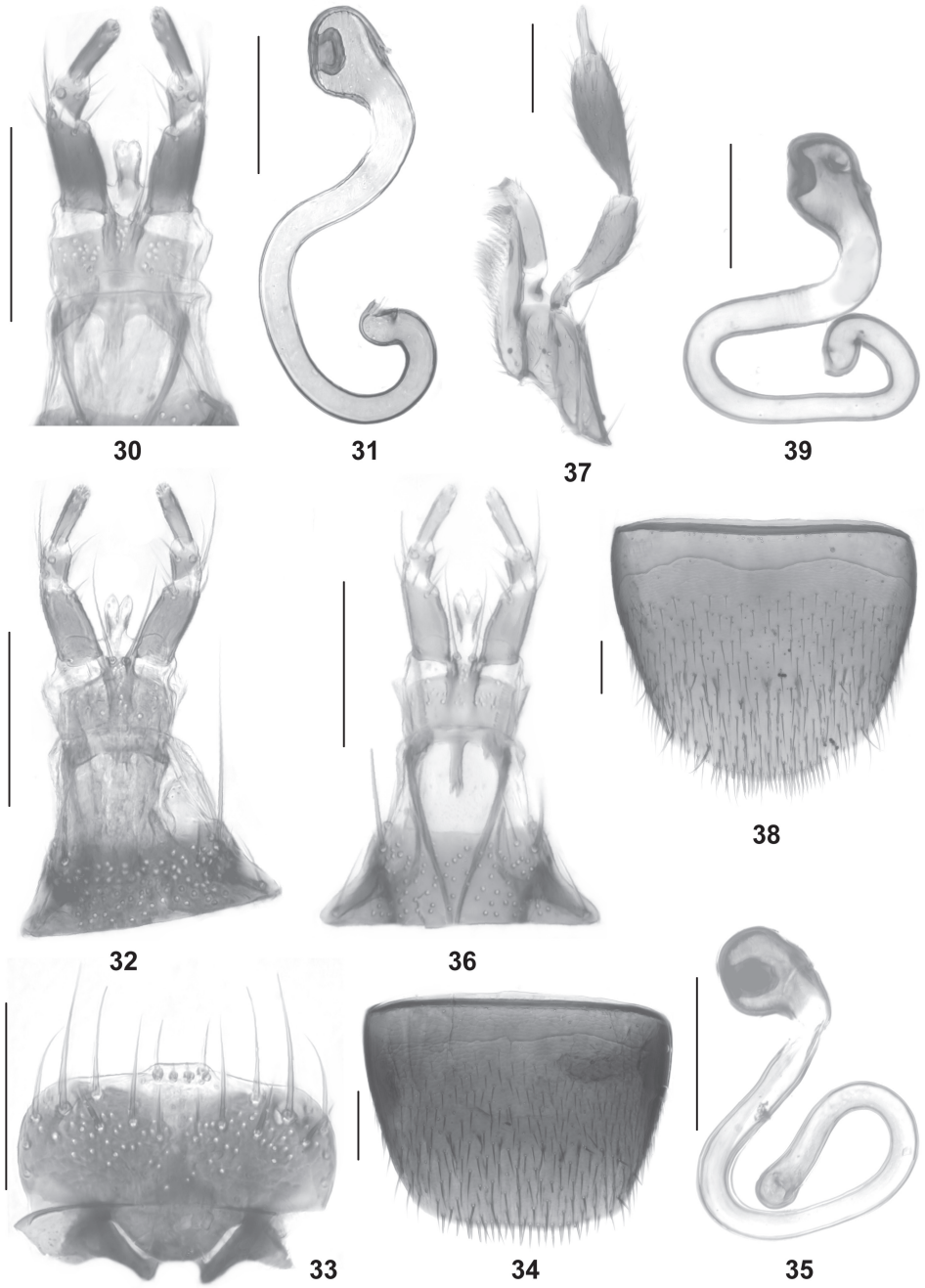
Figs 1–9: *Parocyusa holdhausi* (1–4) and *P. knabli* (5–9): 1–2, 5–6) median lobe of aedeagus in lateral and in ventral view; 3, 9) maxilla; 4) labrum; 7–8) paramere. Scale bars: 1–2, 5–8: 0.2 mm; 3–4, 9: 0.1 mm.



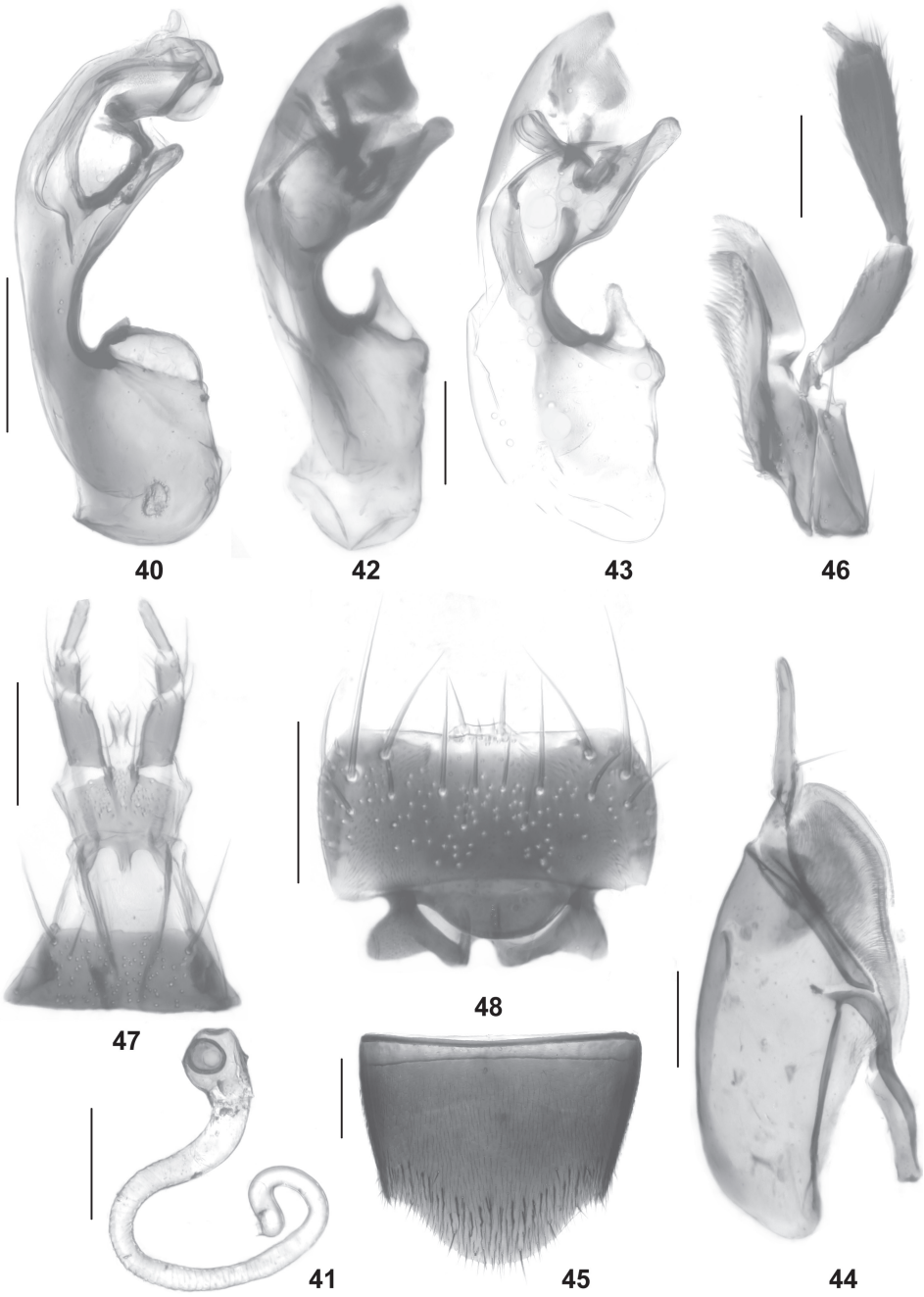
Figs 10–20: *Parocyusa holdhausi* (10–12), *P. knabli* (13–17), and *P. montana* (18–20): 10, 13) labium; 11, 15) male tergite VIII; 12, 16) male sternite VIII; 14) labrum; 17) spermatheca; 18) male habitus; 19) median lobe of aedeagus in lateral view; 20) paramere. Scale bars: 18: 1.0 mm; 11–12, 15–16, 19–20: 0.2 mm; 10, 13–14, 17: 0.1 mm.



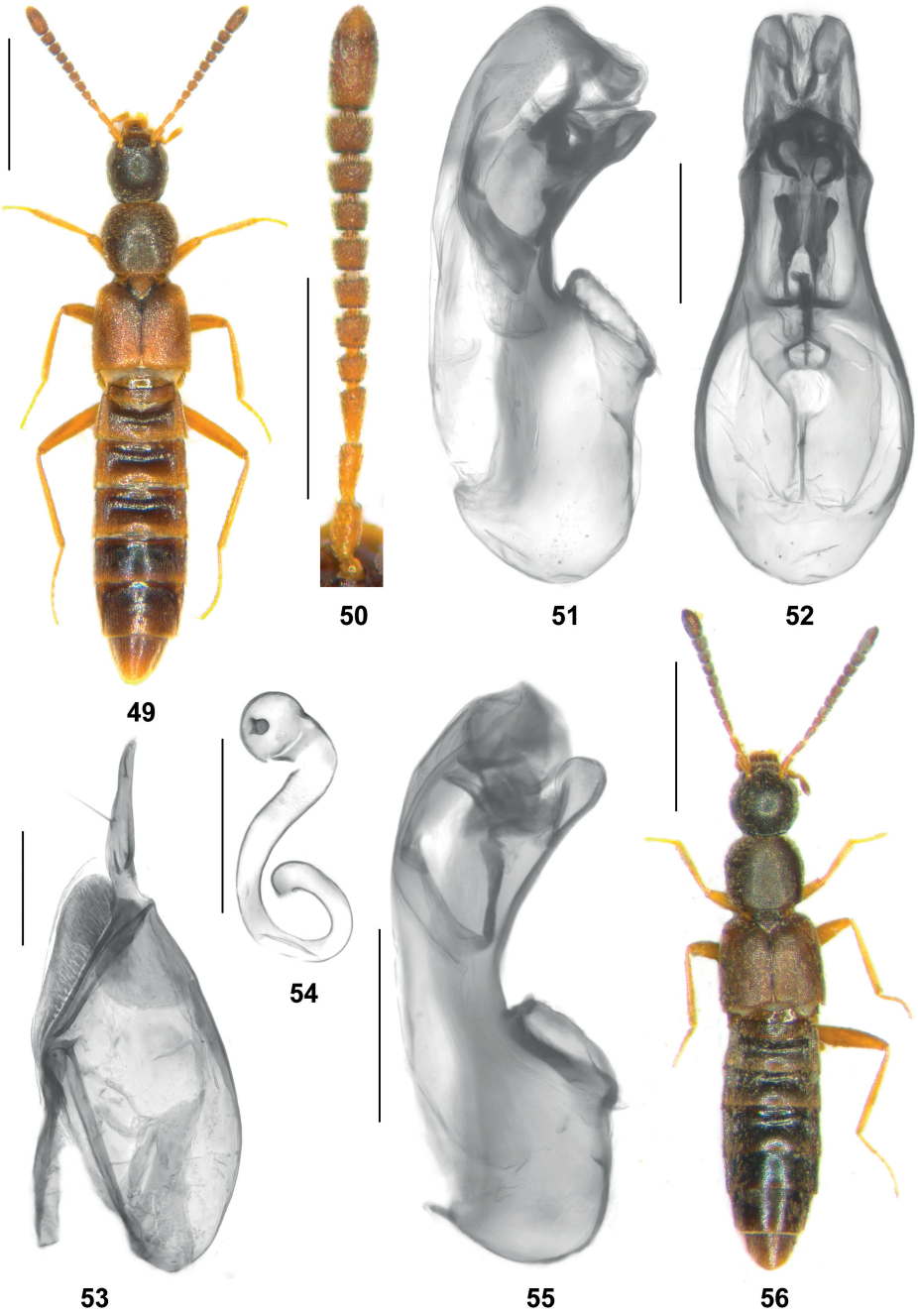
Figs 21–29: *Parocyusa kahleni*: 21) habitus; 22) forebody; 23) antenna; 24) labrum; 25) abdomen; 26) male sternite VIII; 27–28) median lobe of aedeagus in lateral and in ventral view; 29) paramere. Scale bars: 21: 1.0 mm; 22, 25: 0.5 mm; 23, 26–29: 0.2 mm; 24: 0.1 mm.



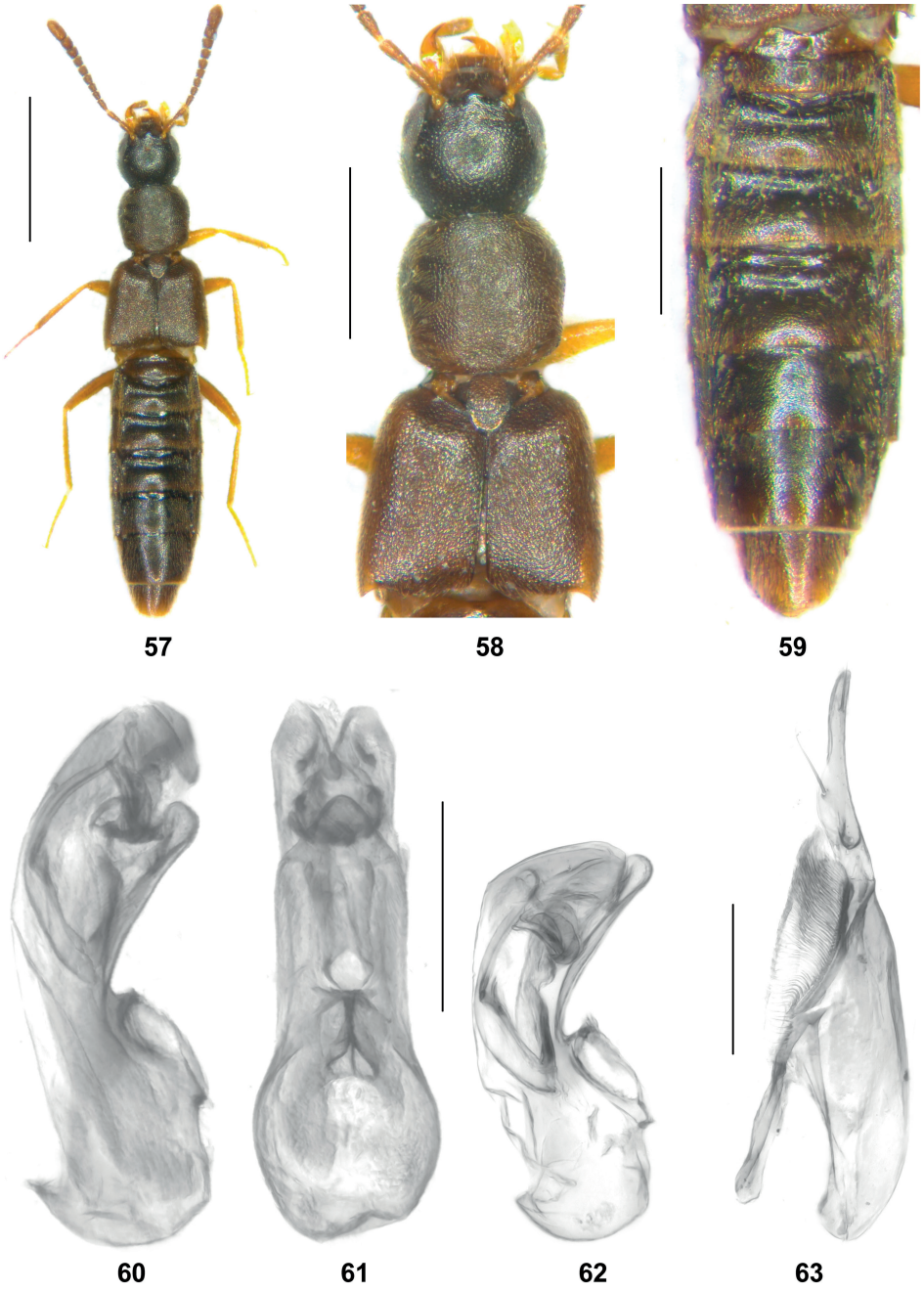
Figs 30–39: *Parocyusa kahleni* (30–31), *P. caligula* (32–35), and *P. schuelkei* (36–39): 30, 32, 36) labium; 31, 35, 39) spermatheca; 33) labrum; 34, 38) female sternite VIII; 37: maxilla. Scale bars: 0.1 mm.



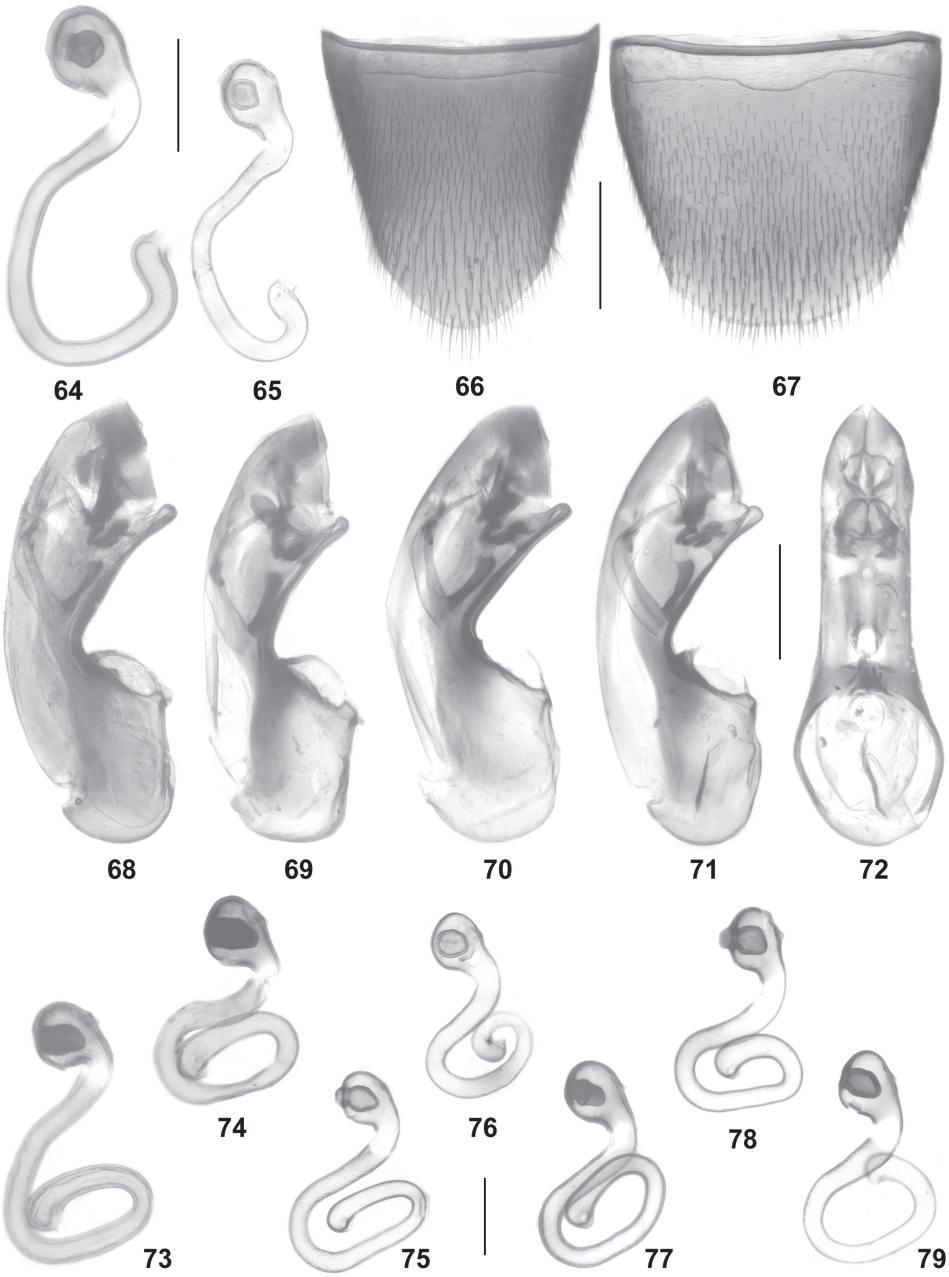
Figs 40–48: *Parocyusa antennata* (40–41) and *P. longitarsis* (42–48): 40, 42–43) median lobe of aedeagus in lateral view; 41) spermatheca; 44) paramere; 45) male sternite VIII; 46) maxilla; 47) labium; 48) labrum. Scale bars: 40, 42–45: 0.2 mm; 41, 46–48: 0.1 mm.



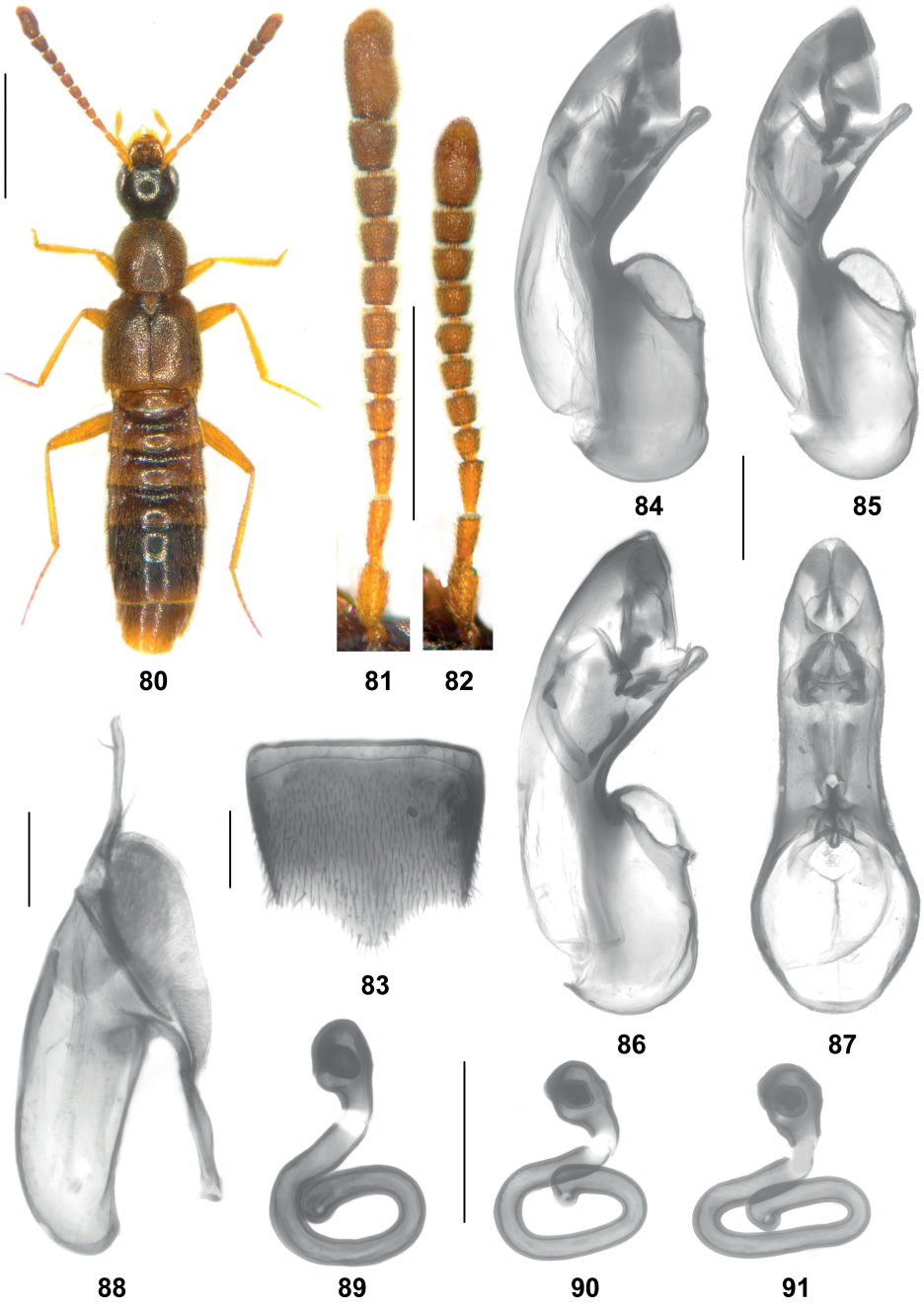
Figs 49–56: *Parocyusa matarata* (49–54), *P. crebrepunctata* (55), and *P. baicalensis* (56): 49, 56) male habitus; 50) male antenna; 51–52, 55) median lobe of aedeagus in lateral and in ventral view; 53) paramere; 54) spermatheca. Scale bars: 49, 56: 1.0 mm; 50: 0.5 mm; 51–55: 0.2 mm.



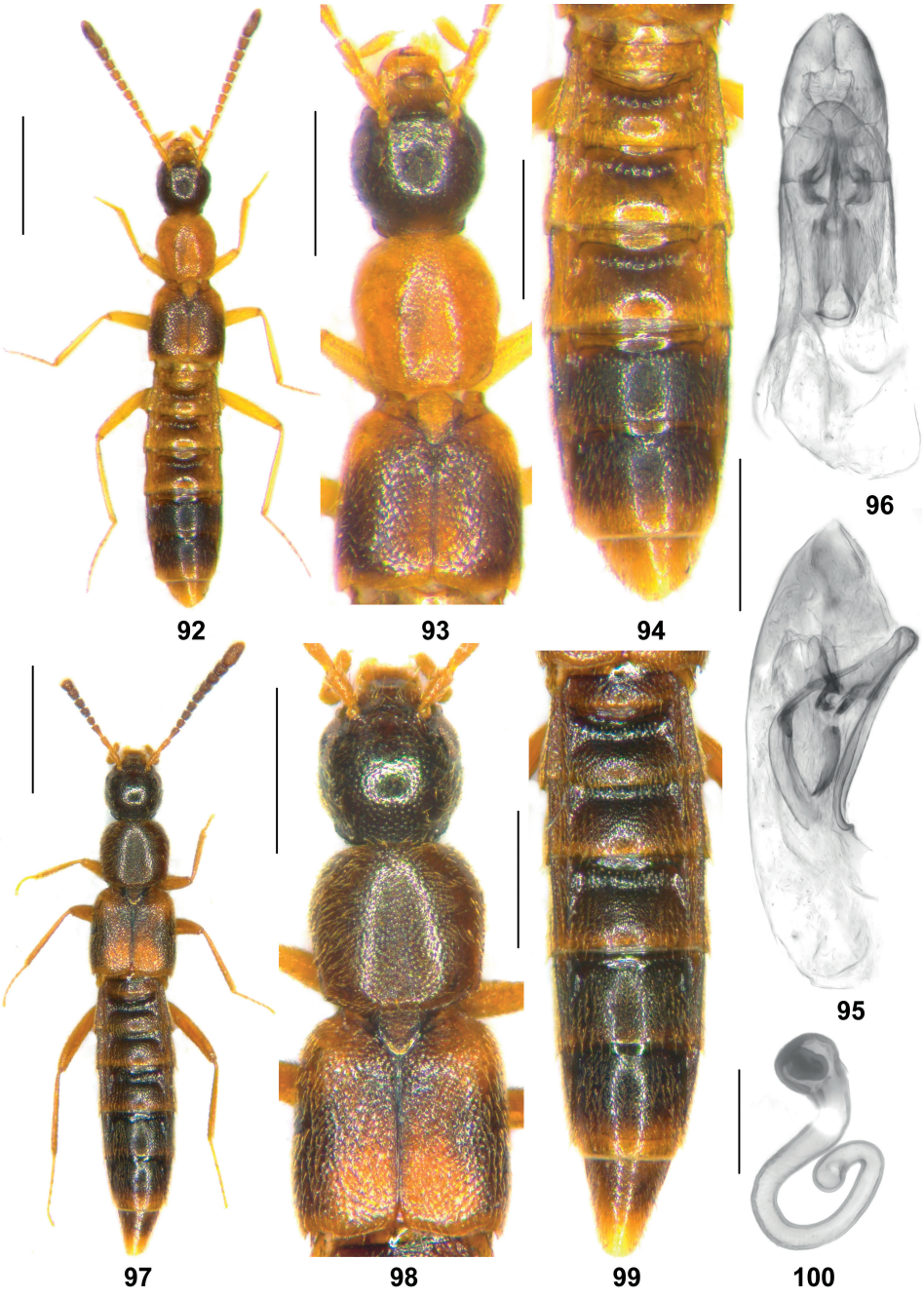
Figs 57–63: *Parocyusa baicalensis* (57–58: holotype of *P. hebeiensis*): 57) female habitus; 58) forebody; 59) abdomen; 60–62) median lobe of aedeagus in lateral and in ventral view; 63) paramere. Scale bars: 57: 1.0 mm; 58–59: 0.5 mm; 60–63: 0.2 mm.



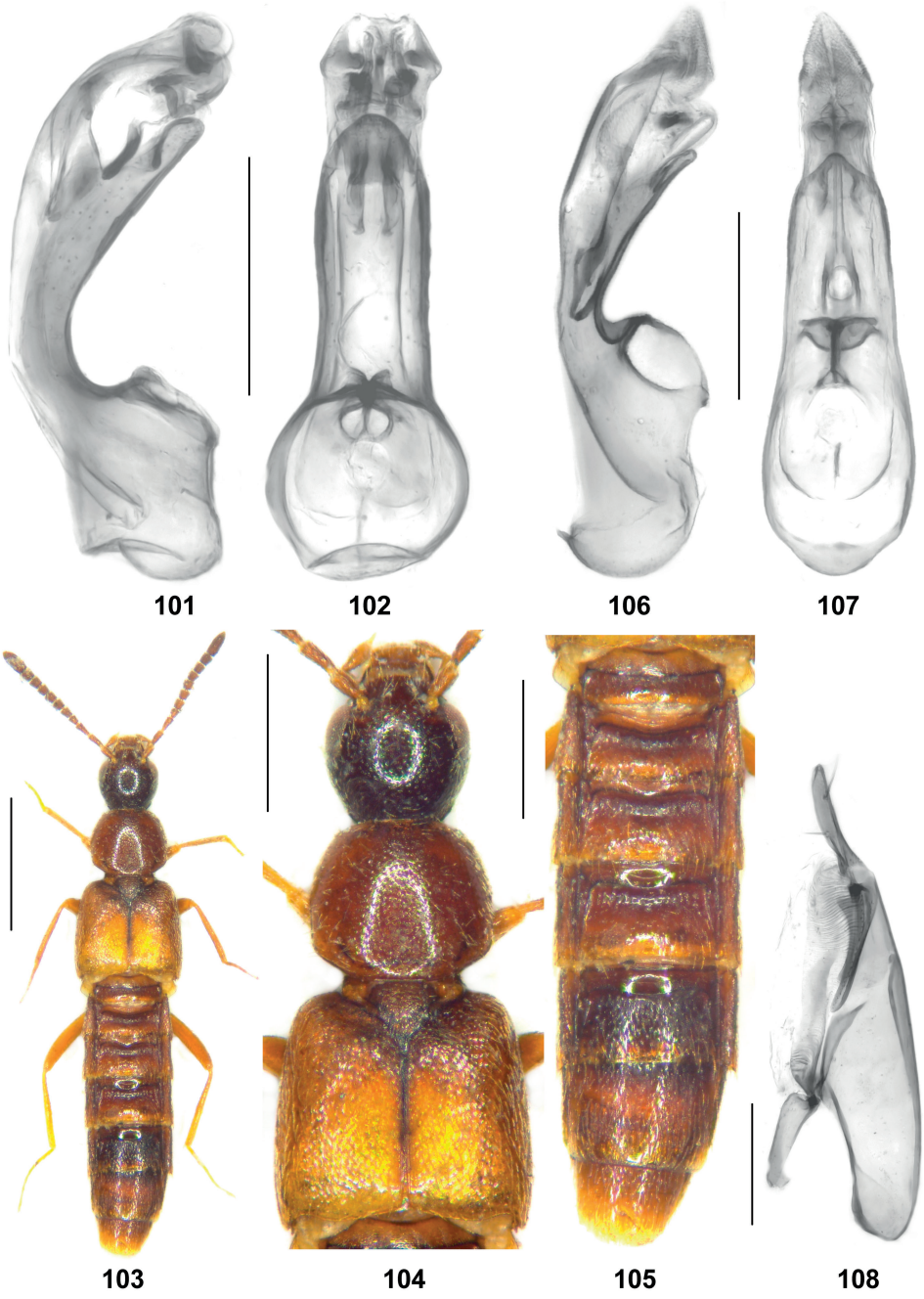
Figs 64–79: *Parocyusa baicalensis* (64–67; 64, 67: lectotype; 65: holotype of *P. hebeiensis*) and *P. rubicunda* (68–79) from Slovakia (68), South Italy (69), Armenia (70–72, 78), Germany (73–74), Turkey (75–76), Georgia (77), and Iran (69): 64–65, 73–79) spermatheca; 66) male sternite VIII; 67) female sternite VIII; 68–72) median lobe of aedeagus in lateral and in ventral view. Scale bars: 66–72: 0.2 mm; 64–65, 73–79: 0.1 mm.



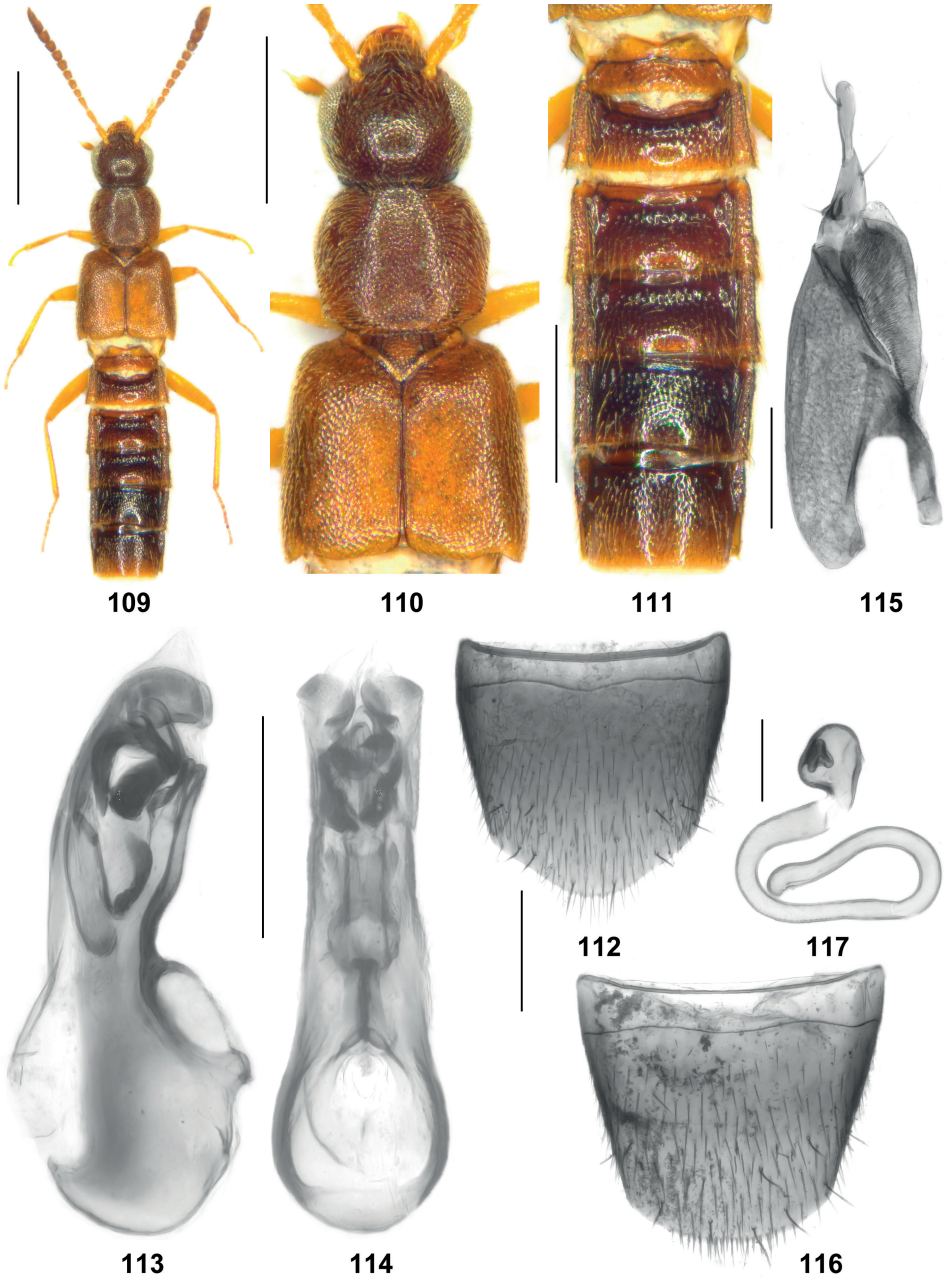
Figs 80–91: *Parocyusa virilis*: 80) male habitus; 81) male antenna; 82) female antenna; 83) male sternite VIII; 84–87) median lobe of aedeagus in lateral and in ventral view; 88) paramere; 89–91) spermatheca. Scale bars: 80: 1.0 mm; 81–82: 0.5 mm; 83–91: 0.2 mm.



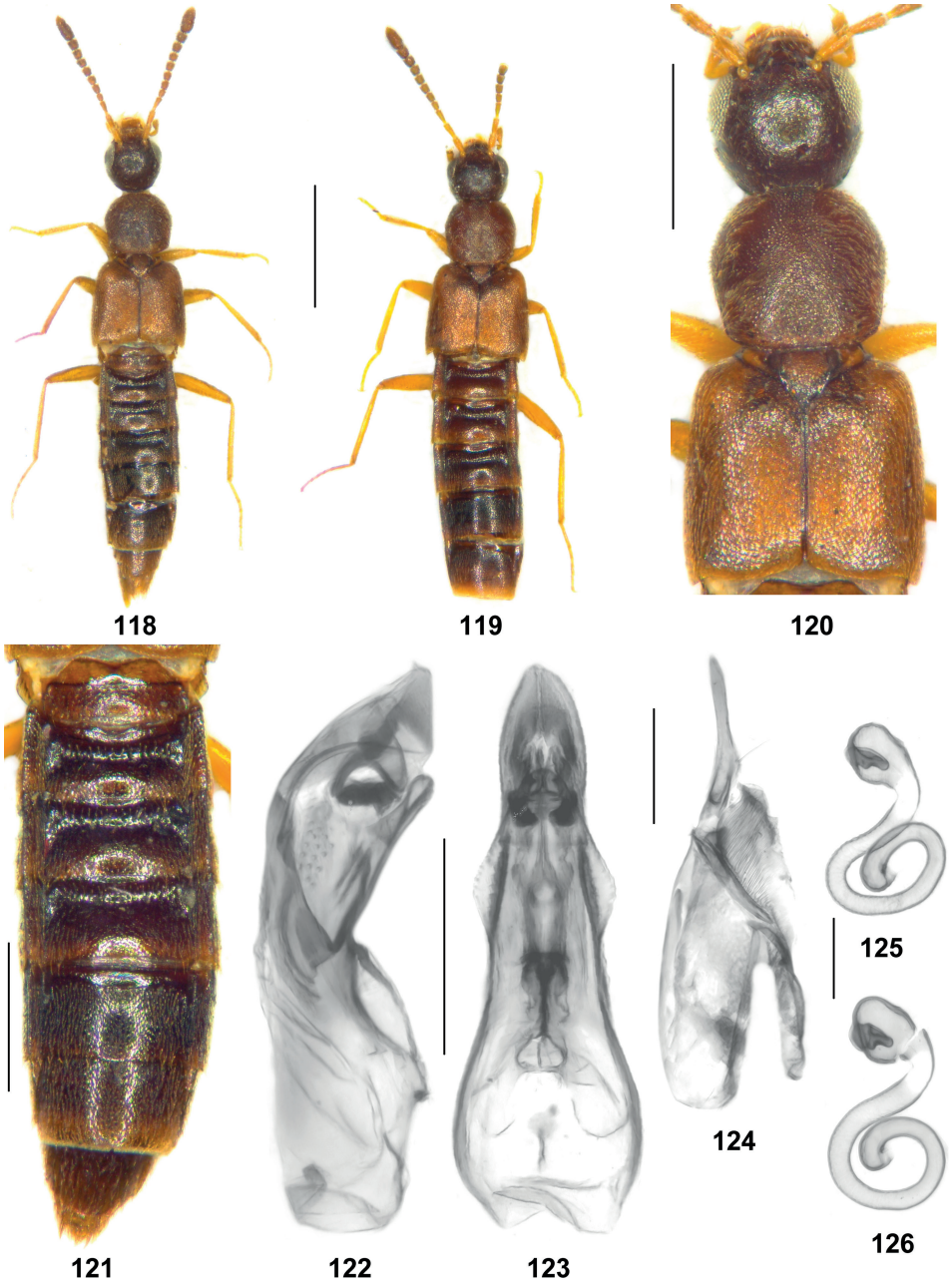
Figs 92–100: *Parocyusa gracillima* (92–96) and *P. maculipennis* (97–100): 92, 97) male habitus; 93, 98) forebody; 94, 99) abdomen; 95–96) median lobe of aedeagus in lateral and in ventral view; 100) spermatheca. Scale bars: 92, 97: 1.0 mm; 93–94, 98–99: 0.5 mm; 95–96: 0.2 mm; 100: 0.1 mm.



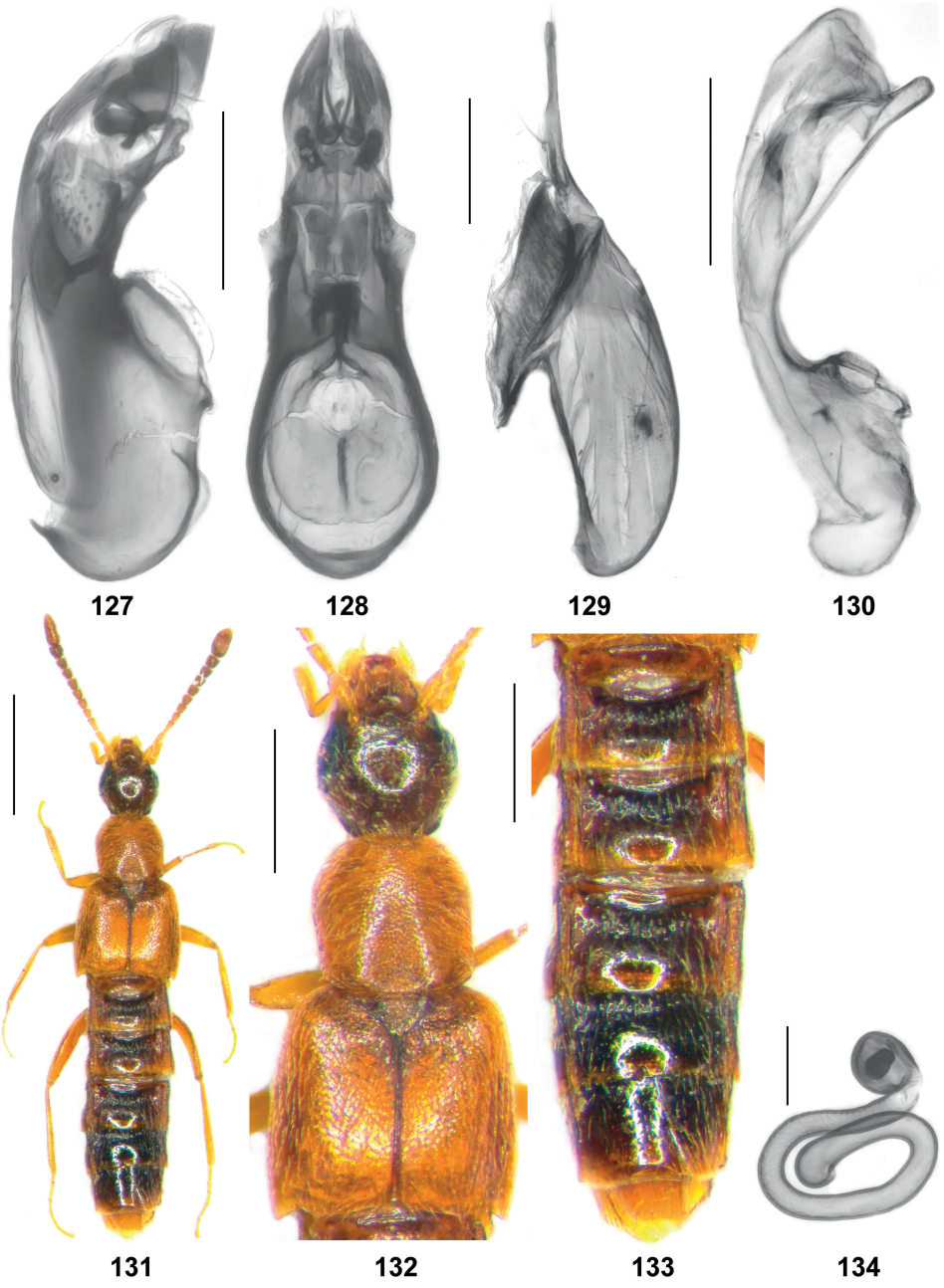
Figs 101–108: *Parocyusa maculipennis* (101–102) and *P. gilvipennis* (103–108): 101–102, 106–107) median lobe of aedeagus in lateral and in ventral view; 103) male habitus; 104) forebody; 105) abdomen; 108) paramere. Scale bars: 103: 1.0 mm; 104–105: 0.5 mm; 101–102, 106–108: 0.2 mm.



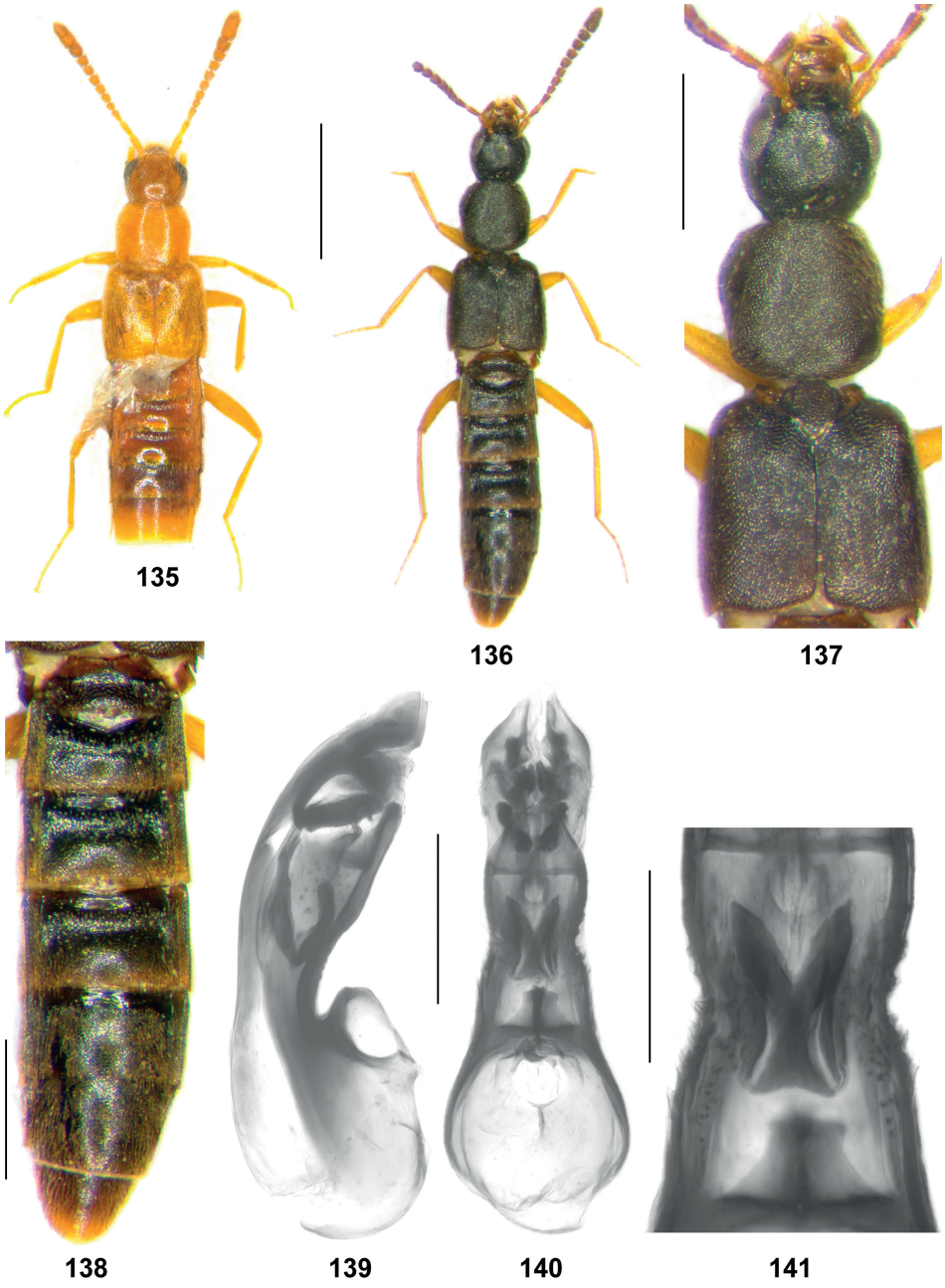
Figs 109–117: *Parocyusa ripicola* (109–112: lectotype): 109) male habitus; 110) forebody; 111) abdomen; 112) male sternite VIII; 113–114) median lobe of aedeagus in lateral and in ventral view; 115) paramere; 116) female sternite VIII; 117) spermatheca. Scale bars: 109: 1.0 mm; 110–111: 0.5 mm; 112–116: 0.2 mm; 117: 0.1 mm.



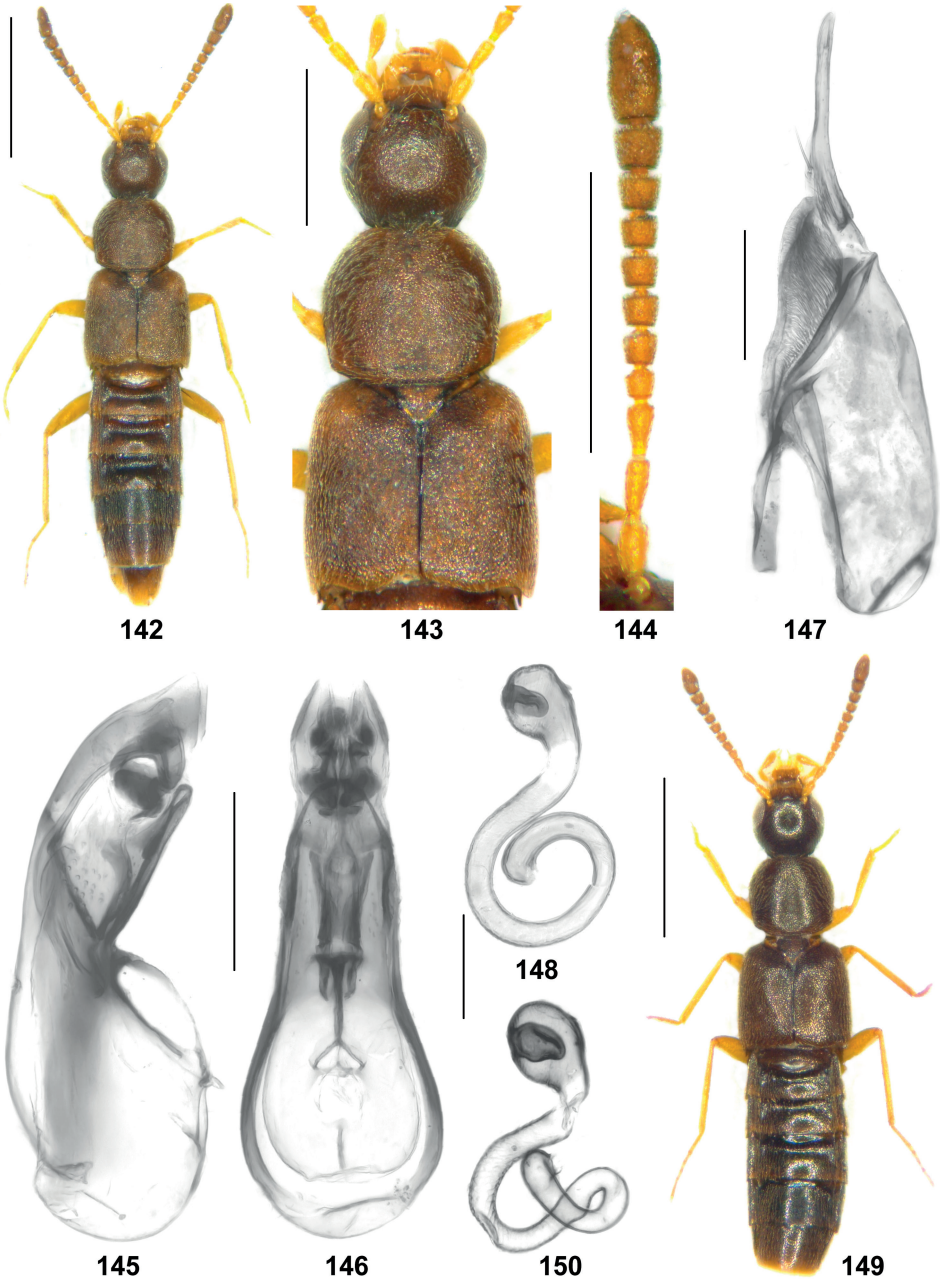
Figs 118–126: *Parocyusa germana* (119–121, 125–126: syntypes): 118) male habitus; 119) female habitus; 120) forebody; 121) abdomen; 122–123) median lobe of aedeagus in lateral and in ventral view; 124) paramere; 125–126) spermatheca. Scale bars: 118–119: 1.0 mm; 120–121: 0.5 mm; 122–124: 0.2 mm; 125–126: 0.1 mm.



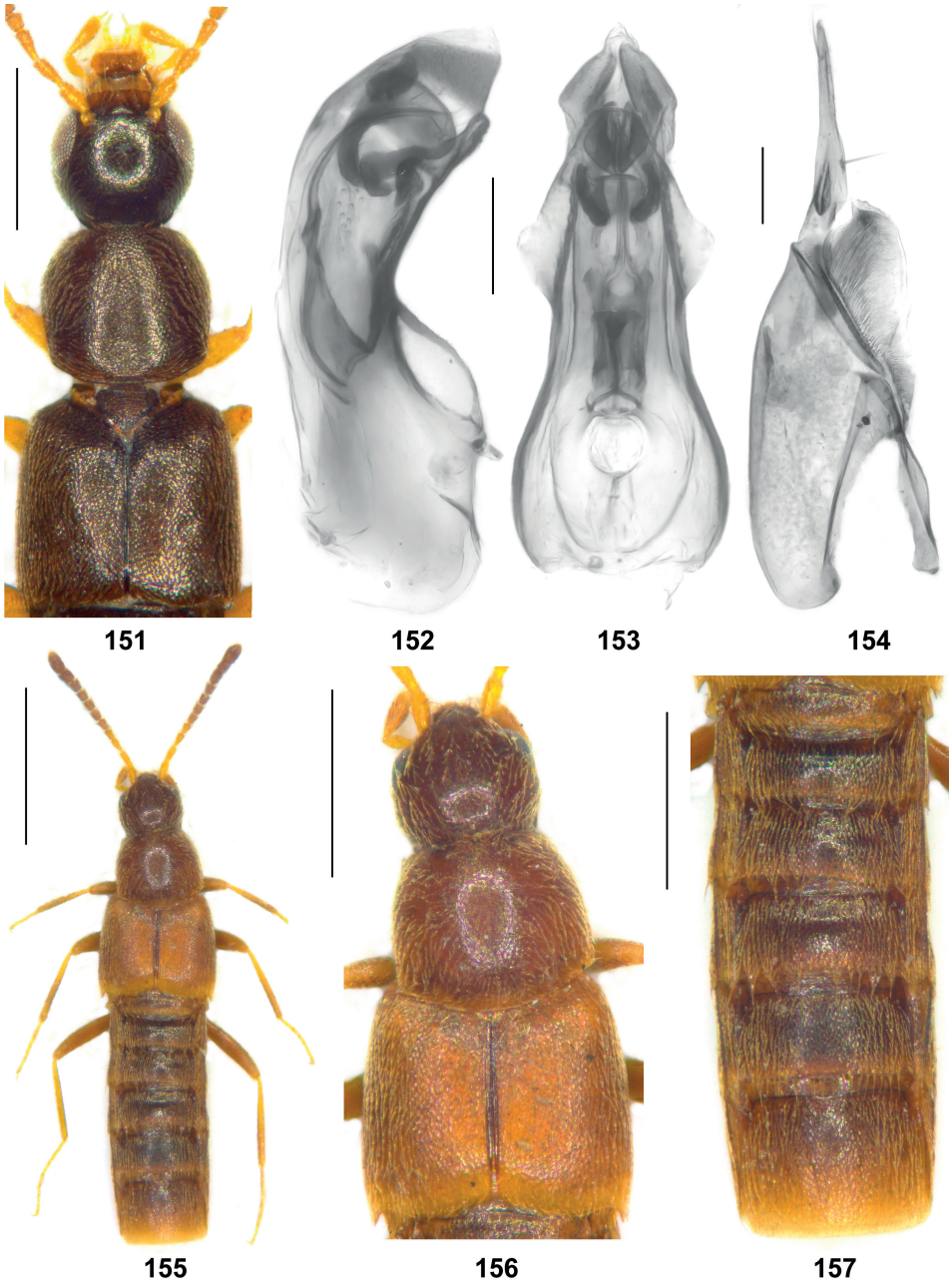
Figs 127–134: *Parocyusa hartmanni* (127–129), *P. subcyanea* (130), and *P. championi* (131–134): 127–128, 130) median lobe of aedeagus in lateral and in ventral view; 129) paramere; 131) male habitus; 132) forebody; 133) abdomen; 134) spermatheca. Scale bars: 131: 1.0 mm; 132–133: 0.5 mm; 127–130: 0.2 mm; 134: 0.1 mm.



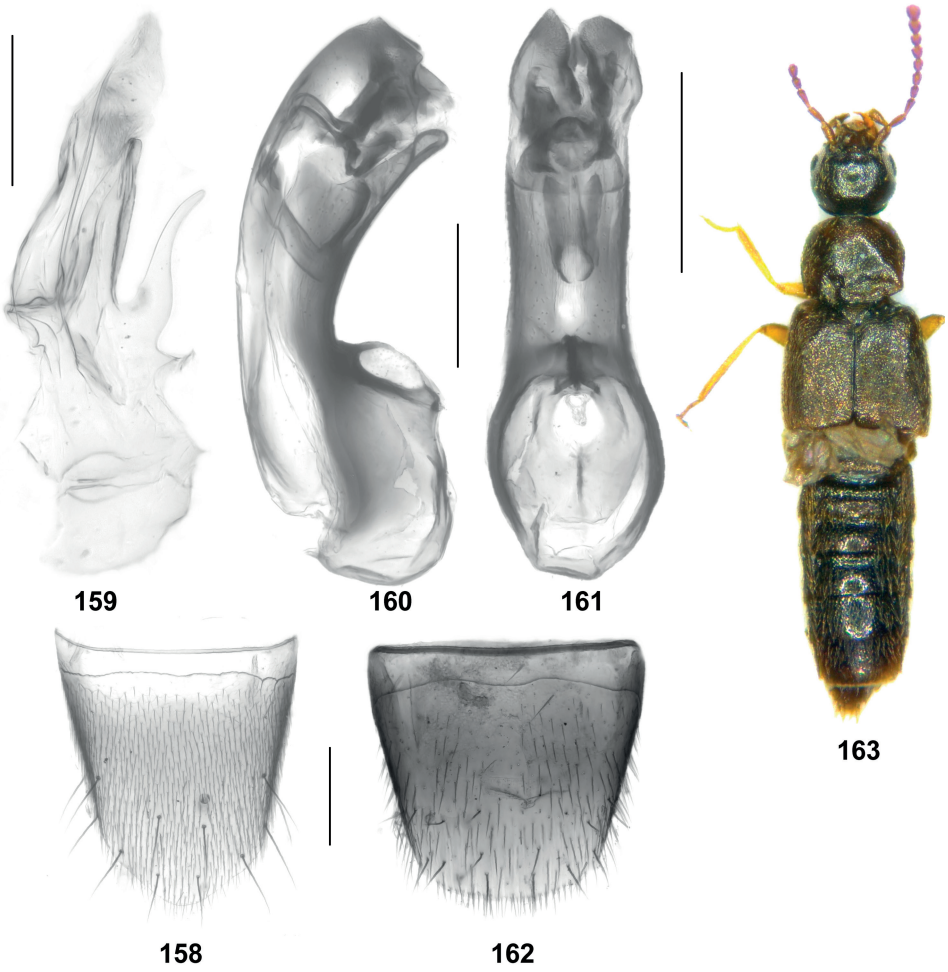
Figs 135–141: *Parocyusa lebedevi*, lectotype (135) and *P. spinosa* (136–141): 135–136) male habitus; 137) forebody; 138) abdomen; 139–140) median lobe of aedeagus in lateral and in ventral view; 141) median portion of ventral process of aedeagus in ventral view. Scale bars: 135–136: 1.0 mm; 137–138: 0.5 mm; 139–140: 0.2 mm; 141: 0.1 mm.



Figs 142–150: *Parocyusa gonggaica* (142–148) and *P. dilatata* (149–150): 142, 149) male habitus; 143) forebody; 144) antenna; 145–146) median lobe of aedeagus in lateral and in ventral view; 147) paramere; 148, 150) spermatheca. Scale bars: 142, 149: 1.0 mm; 143–144: 0.5 mm; 145–147: 0.2 mm; 148, 150: 0.1 mm.



Figs 151–157: *Parocyusa dilatata* (151–154) and "*Ocyusa*" *fuscobrunnea*, syntype (155–157): 151, 156) forebody; 152–153) median lobe of aedeagus in lateral and in ventral view; 154) paramere; 155) male habitus; 157) abdomen. Scale bars: 155: 1.0 mm; 151, 156–157: 0.5 mm; 154: 0.2 mm; 152–153: 0.1 mm.



Figs 158–163: "*Ocyusa*" *fuscobrunnea*, syntype (158–159), *Parocyusa championi* (160–162), and "*Cousya*" *quadrisulcata* (163; holotype of *Tetralaucopora nepalensis*): 158) male sternite VIII; 159–161) median lobe of aedeagus in lateral and in ventral view; 162) female sternite VIII; 163) habitus. Scale bars: 163: 1.0 mm; 158–162: 0.2 mm.

Parocyusa strupiiana Scheerpeltz, 1958

Parocyusa strupiiana Scheerpeltz, 1958: 110 ff.
Chilopora (*Parocyusa*) *strupiiana*: Lohse (1974).
Parocyusa strupiiana: Lohse (1989).
Parocyusa (*Parocyusa*) *strupiiana*: Smetana (2004).
Tectusa strupiiana: Assing & Schülke (2007).
Tectusa strupiiana: Schülke & Smetana (2015).

It can be concluded from the original description that *P. strupiiana*, too, is micropterous and closely allied to *P. holdhausi*. The currently known distribution is confined to the type locality (Hoher Staff) in the Gailtaler Alpen in South Austria. The holotype was

not available for examination (see explanation in Introduction), so that the status of this species must be regarded as doubtful.

Parocyusa montana (KRAATZ, 1856), comb.n.
(Figs 18–20)

Oxypoda montana KRAATZ, 1856: 187.
Parocyusa franzi SCHEERPELTZ, 1958: 109 f.; synonymy by ZERCHE (2007).
Chilopora (*Parocyusa*) *franzi*: LOHSE (1974).
Parocyusa franzi: LOHSE (1989).
Parocyusa (*Parocyusa*) *franzi*: SMETANA (2004).
Tectusa montana: ZERCHE (2007, 2008).
Tectusa montana: SCHÜLKE & SMETANA (2015).

Material examined: AUSTRIA: Steiermark: 2 ♂♂, Seckauer Alpen, Schönebentörl, 2050 m, rhododendron litter between rocks, 5.VII.2001, leg. Kahlen ["*Tectusa montana* (Kraatz, 1856), det. Zerche 2007"] (cAss).

ZERCHE (2007, 2008) revised *Oxypoda montana*, synonymized *Parocyusa franzi* with this name, moved the species to *Tectusa*, and mapped its distribution, which is confined to the Seckauer Alpen in the south of Steiermark, Austria. An examination of the above specimens revealed that the species undoubtedly belongs to *Parocyusa*, not *Tectusa*. For illustrations of the habitus, median lobe of the aedeagus, and the paramere see Figs 18–20.

Parocyusa carnica LOHSE, 1988

Parocyusa carnica LOHSE, 1988: 47 f.
Parocyusa carnica: LOHSE (1989).
Tectusa carnica: ASSING (2002).
Tectusa carnica: SMETANA (2004).
Tectusa carnica: SCHÜLKE & SMETANA (2015).

Type material examined: Paratype ♀: "Gartnerkofel, Karn. Alpen / 8.VIII.71, 2000 m [overleaf] / Paratypus / *Parocyusa carnica* n. sp." (cWun).

Additional material examined: AUSTRIA: 1 ♂, Kärnten, Karnische Alpen, Gartnerkofel, 2100–2250 m, 21.VII.1997, leg. Assing (cAss).

Comment: The original assignment is confirmed. Like the following species, *P. carnica* lacks a distinct sexual dimorphism of the antennae and antennomere XI is not constricted, but based on the shape of the pronotum, on the male sexual characters, particularly the shape of the apical lobe of the paramere, and finally also on zoogeographic considerations, this species belongs to *Parocyusa*. However, as can be inferred from the different general shape of the aedeagus and the above differences, *P. carnica* does not belong to the same lineage as *P. holdhausi* and allied species, but to that including *P. kahleni*, *P. longicollis*, *P. caligula*, and *P. schuelkei*.

This species has been recorded only from Gartnerkofel, Karnische Alpen (Austria: Kärnten).

Parocyusa kahleni sp.n.
(Figs 21–31)

Type material: Holotype ♂: "SLO – Kočevski rog, Ušiva jama, leg. Kahlen / Prelesnikova Koliševka, 500 m 30.4.2012 Moos u. Humus zwischen Blöcken / Holotypus ♂ *Parocyusa kahleni* sp. n., det. V. Assing 2019" (TLMF). **Paratypes:** 6 ♂♂, 2 ♀♀: same data as holotype (TLMF, cAss); 1 ♀, 6 exs.: "SLO – Kočevski

rog, Podsteniška, Koleševka leg. Kahlen / 560 m 5.6.1999, Moos und Streu zwischen Blöcken" (TLMF); 11 exs.: same data, but 4.6.1996 (TLMF); 1 ex.: same data, but 17.6.2006 (TLMF).

Etymology: This species is dedicated to Manfred Kahlen (Innsbruck), who collected the type material.

Description: Body length 3.2–3.7 mm; length of forebody 1.3–1.5 mm. Habitus as in Fig. 21. Colouration: body blackish; legs dark-brown to blackish-brown with paler tarsi; antenna blackish-brown to black, often with the basal antennomeres slightly paler brown; maxillary palpi brown with the apical palpomere yellow.

Head (Fig. 22) approximately as long as broad; punctation dense and extremely fine, barely noticeable in the microreticulation. Eyes weakly convex, 0.7–0.8 times as long as postocular portion in dorsal view. Antenna (Fig. 23) approximately 1.0 mm long and with very weakly pronounced sexual dimorphism; antennomeres IV weakly transverse, V–X gradually increasing in width and moderately transverse, IX less than twice as broad as long, X noticeably longer than IX and approximately 1.5 times as broad as long, and XI approximately as long as (♀), or slightly longer than (♂) the combined length of IX and X, without constriction. Labrum (Fig. 24) practically identical to that of *P. longitarsis*, both in shape and chaetotaxy. Ligula (Fig. 30) slender, with moderately deep apical incision.

Pronotum (Fig. 22) approximately 1.1 times as long as broad and 1.15 times as broad as head, broadest in anterior half; punctation dense, more distinct than that of head; microreticulation present; pubescence of midline directed posteriad.

Elytra (Fig. 22) approximately 0.75 times as long as pronotum; punctation dense, significantly less fine than that of head and pronotum; interstices with shallow microsculpture and some shine. Hind wings completely reduced. Metatarsomere I elongate, nearly as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 25): tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with microsculpture predominantly composed of transverse meshes; posterior margin of tergite VII with fine palisade fringe; posterior margin of tergite VIII strongly convex.

♂: posterior margin of sternite VIII obtusely pointed in the middle (Fig. 26); median lobe of aedeagus approximately 0.45 mm long and shaped as in Figs 27–28; paramere (Fig. 29) approximately 0.7 mm long, apical lobe approximately half as long as basal portion, slender, and with an angular projection basally.

♀: posterior margin of sternite VIII weakly convex; spermatheca as in Fig. 31.

Comparative notes: Despite the absence of an apical or median constriction of the male antennomere XI, this species is attributed to *Parocyusa*, particularly based on the sexual dimorphism of antennomere XI, the slender habitus, the mouthparts (shapes and chaetotaxy of the labrum and the ligula), a weakly transverse pronotum, long tarsi, the presence of a palisade fringe at the posterior margin of tergite VII, and the shape of the apical lobe of the paramere. Based on the morphology of the aedeagus, it is more closely related to *P. carnica* from the Karnische Alpen, as well as to *P. longicollis* and *P. caligula* from Italy than to *P. holdhausi* and allied species from the Alps. *Parocyusa kahleni* is reliably distinguished from other micropterous congeners by its dark colouration (shared only with *P. carnica*) and the shape of the aedeagus.

Distribution and natural history: This species is currently known only from the type locality (coordinates: 45°39'43"N, 14°57'29"E), a karst area with beech and fir forest, in Kočevski rog, South Slovenia. The specimens were sifted from moss and debris between large rocks in a deep doline with permafrost at altitudes of 500 and 560 m (Kahlen, pers. comm.).

Parocyusa longicollis (EPPELSHEIM, 1889), comb.n.

Ocyusa longicollis EPPELSHEIM, 1889: 169 f.
Ocyusa (*Leptusina*) *longicollis*: BERNHAUER (1902).
Leptusina longicollis: ASSING (1996b).
Tectusa longicollis: SMETANA (2004).
Tectusa longicollis: SCHÜLKE & SMETANA (2015).

The type material of this species, which has been recorded only from the environs of Vallombrosa (Italy: Toscana), was revised by ASSING (1996b).

Parocyusa caligula (ASSING, 1996), comb.n.
(Figs 32–35)

Leptusina caligula ASSING, 1996b: 168 f.
Tectusa caligula: SMETANA (2004).
Tectusa caligula: SCHÜLKE & SMETANA (2015).

A re-examination of the holotype and additional material revealed that this species belongs to *Parocyusa*, not *Tectusa*. Based on the shared presence of a conspicuous pair of filiform processes at the base of the ventral process of the aedeagus, it is most closely allied to *P. schuelkei*. The known distribution is confined to Matera province (South Italy: Basilicata). For a description and illustrations of this species see ASSING (1996b). The female sexual characters and the mouthparts are illustrated for the first time in Figs 32–35.

Parocyusa schuelkei (ASSING, 1996), comb.n.
(Figs 36–39)

Leptusina schuelkei ASSING, 1996a: 163 ff.
Tectusa schuelkei: SMETANA (2004).
Tectusa schuelkei: SCHÜLKE & SMETANA (2015).

Material examined: SPAIN: Castilla y León: 2 exs., Sierra de la Demanda, ca. 40 km ESE Burgos, S Valmala, Trigaza, 42°16'N, 03°15'W, 1720 m, beech forest, 12.X.2003, leg. Assing (cAss); 2 exs., Sierra de la Demanda, ca. 40 km ESE Burgos, S Valmala, Trigaza, 42°17'N, 03°16'W, 1540 m, beech forest with *Vaccinium*, *Juniperus* and grass, 12.X.2003, leg. Assing (cAss); 1 ex., Sierra de la Demanda, ca. 40 km SE Burgos, SW Pineda de la Sierra, 42°13'N, 03°19'W, 1480 m, beech forest, 12.X.2003, leg. Assing (cAss); 5 exs., Sierra de la Demanda, Sierra de Urbión, Sierra de Freguela, Peña Negra, 42°03'N, 02°46'W, 1950–2000 m, grass, moss, and pine litter sifted, 15.X.2003, leg. Assing (cAss); 38 exs., Sierra de la Demanda, Sierra de Urbión, Sierra de Freguela, Peña Negra, 42°03'N, 02°46'W, 1750–1950 m, pine forest, 15.X.2003, leg. Assing (cAss, cFel); 19 exs., Sierra de la Demanda, Sierra de Neila, Laguna Negra de Neila, 42°03'N, 03°03'W, 1870 m, pine litter, *Erica*, grass, and moss sifted, 16.X.2003, leg. Assing (cAss); 1 ex., Sierra de la Demanda, E Neila, Cabeza Herrera, 42°05'N, 02°58'W, 1580 m, mixed oak, beech and pine forest, 16.X.2003, leg. Assing (cAss).

Based on a revision of external and sexual characters, this species is moved from *Tectusa* to *Parocyusa*. It is endemic to the Sierra de la Demanda in North Spain. For a description and illustrations of the male sexual characters see Assing (1996a). The female sexual characters and the mouthparts are illustrated for the first time in Figs 36–39.

Parocyusa antennata (Eppelsheim, 1878), comb.n.
(Figs 40–41)

Chilopora antennata Eppelsheim, 1878: 100.
Chilopora antennata: Bernhauer & Scheerpeltz (1926).
Parocyusa (*Tetralaucopora*) *antennata*: Smetana (2004).
Tetralaucopora antennata: Assing & Schülke (2007).
Tetralaucopora antennata: Schülke & Smetana (2015).

Type material examined: Lectotype ♂ [dissected prior to present study], present designation: "Kaukas, Leder, Michailowo am Suramgebg. / *syriacus* var? / c. Epplsh. Steind. d. / *antennata* Eppelsh. Schneid., Beitr. Käferf. Cau, 1878. p. 100. / Typus / Lectotypus ♂ *Chilopora antennata* Eppelsheim, desig. V. Assing 2020 / *Parocyusa antennata* (Eppelsheim), det. V. Assing 2020" (NHMW).

Additional material examined: RUSSIA: 1 ♂, Karachayevo-Cherkesskaya Respublika, 13 km SW Teberda, 43°20'N, 41°40'E, 1450 m, moist spruce forest with scattered beech, litter, moss, and dead wood sifted, 22.VII.2011, leg. Assing (cAss); 1 ♀, Karachayevo-Cherkesskaya Respublika, 20 km SW Teberda, Dombai, 43°18'N, 41°39'E, 2160 m, subalpine birch forest, litter sifted, 23.VII.2011, leg. Assing (cAss). **GEORGIA:** 3 ♂♂, 2 ♀♀, Central Caucasus, Shatili–Kristani, 42°35'N, 45°06'E, 1960 m, 16.VII.2015, leg. Brachat & Meybohm (cAss); 3 ♂♂, 9 ♀♀, Central Caucasus, Gudani, 42°32'N, 44°58'E, 1620 m, 18.VII.2015, leg. Brachat & Meybohm (cAss); 5 ♂♂, 3 ♀♀, Central Caucasus, Sno valley, 42°35'N, 44°45'E, 2210 m, 21.VII.2015, leg. Brachat & Meybohm (cAss).

Comment: The original description is based on three syntypes from "Ufer der Kura in der Nähe von Michailowo" (Eppelsheim 1878). The sole syntype located in the Eppelsheim collection (NHMW) is designated as the lectotype. All other specimens standing as *P. antennata* in the collections of NHMW were misidentified and belong to other species (*P. rubicunda*, *P. virilis*). The aedeagus and the spermatheca are illustrated in Figs 40–41.

The previously known distribution was confined to Georgia. The above specimens from the environs of Teberda represent the first records from Russia.

Parocyusa longitarsis (Erichson, 1839), nomen protectum, comb.n.
(Figs 42–48)

Calodera longitarsis Erichson, 1839: 698 f.
Aleochara attenuata Stephens, 1832: 112; **nomen oblitum**.
Homalota femoralis Heer, 1839: 341.
Chilopora syriaca Saulcy, 1865: 630 f.; **syn.n.**
Chilopora subnitida Mulsant & Rey, 1875: 511.
Chilopora longitarsis: Bernhauer & Scheerpeltz (1926).
Chilopora (*Chilopora*) *longitarsis*: Lohse (1974).
Parocyusa longitarsis: Lohse (1989).
Parocyusa (*Tetralaucopora*) *longitarsis*: Smetana (2004).
Tetralaucopora longitarsis: Assing & Schülke (2007).
Tetralaucopora longitarsis: Schülke & Smetana (2015).

Material examined: CANARY Islands: 2 exs., Gran Canaria, San Augustin, pigeon dung, 5.V.1068, leg. Benick (cAss). **MADEIRA:** see Assing & Schülke (2006). **MOROCCO:** several unpublished records. **MAINLAND SPAIN:** numerous unpublished records. **FRANCE:** several unpublished records

from the mainland and Corsica. **NETHERLANDS:** one unpublished record. **GERMANY:** numerous unpublished records. **AUSTRIA:** several unpublished records. **ITALY:** numerous unpublished records. **SLOVENIA:** several unpublished records. **GREECE: mainland:** ASSING & WUNDERLE (2001b) and numerous unpublished records. **Pelopónnisos:** several unpublished records. **Thasos:** one unpublished record. **Samothraki:** ASSING (2019b). **Lesbos:** ASSING (2016b). **Samos:** ASSING (2017a, b). **Rhodos:** two unpublished records. **TURKEY:** ASSING (2014a) and numerous unpublished records. **CYPRUS:** (ASSING & WUNDERLE 2001a). **RUSSIA:** 21 exs., W-Caucasus, Karachayevo-Cherkesskaya Respublika, 20 km SW Teberda, above Dombai, 43°17'N, 41°41'E, 2990 m, under stones, partly near snow, 25.VII.2011, leg. Assing (cAss). **SYRIA:** 10 exs., Midanki, Afrin river, 29.IV.1996, leg. Sprick (cAss). **LEBANON:** 1 ex. [det. Feldmann], 31 km NE Beirut, above Yahshoush, near source of Nahr Ibrahim, ca. 500 m, 25.III.2016, leg Reuter (cFel). **ISRAEL:** 1 ♂, West Bank, Wadi Kelt, St. George Monastery, 31°50'N, 35°24'E, -110 m, 15.III.2011, leg. Meybohm (cAss); 1 ♀, West Bank, Wadi Kelt, St. George Monastery env., 31°51'N, 35°25'E, -70 m, stream bank, 15.III.2011, leg. Hetzel (cFel); 4 exs., Upper Galilee, Jordan river near north shore of Sea of Galilee, -200 m, loamy bank with *Cardamine officinalis*, 26.III.2008, leg. Wrase (MNB, cAss); ; 1 ex. [det. Feldmann], Sea of Galilee, Capernaum, Jordan river, river bank, 26.III.2008, leg Assmann (cFel); for additional records see ASSING & FELDMANN (2012). **IRAN:** 4 exs., Kerman province, Ahmad Abad – Shahr-e-Babak road: Purkan, 30°22'18"N, 55°22'14"E, 2530 m, 18.V.2010, leg. Frisch & Serri (MNB, cAss); 1 ex., Kerman province, Darb Behesht – Jiroft, 50 km N Jiroft, 10 km N Delfard Goruh, 29°04'12"N, 57°33'25"E, 2650 m, 28.V.2010, leg. Frisch (MNB); 1 ex., Kerman, Rayen env., Anbaroutak, 29°24'N, 57°26'E, 2350 m, 6.VI.2014, leg. Wrase & Laser (MNB); 1 ex., Lorestan province, 20 km SW Berujerd, 33°46'N, 48°39'E, 1740 m, 15.X.2011, leg. Frisch (MNB); for additional records see ASSING (2007, 2011).

Comment: *Calodera longitarsis* was described based on an unspecified number of syntypes in a work on the beetles of "Mark Brandenburg" (ERICHSON 1839). SCHILOW (1979) examined the type material and designated a female as the lectotype; two of the five paralectotypes do not have type status, since they were collected in Austria and England, respectively. The name has been treated as valid since the original description.

The original description of *Aleochara attenuata* is based on an unspecified number of syntypes from "the Marshamian Cabinet" (STEPHENS 1832). Subsequently, STEPHENS (1839) indicated that the material was collected in "London district". It appears that from that time to the early 20th century, the name *Aleochara attenuata* was forgotten, overlooked, or ignored. It was omitted in major works on European Staphylinidae around the turn of the 19th and 20th centuries (GANGLBAUER 1895, WINKLER 1925) and not mentioned in the synopsis of Palaearctic Aleocharini (BERNHAUER 1901, 1902), which in those days included what is Aleocharini and Oxypodini today. The first catalogue listing of *A. attenuata* is that by BERNHAUER & SCHEERPELTZ (1926), who assign the name to *Chilopora* KRAATZ, 1856 and treat it as a junior synomym of *Chilopora longitarsis*, despite the fact that it was made available seven years prior to Erichson´s name. Strangely, this problem has not been addressed in any of the major recent catalogues (SMETANA 2004, SCHÜLKE & SMETANA 2015, NEWTON 2019); *Aleochara attenuata* has remained in synonymy with *Parocyusa longitarsis* ever since 1926.

Evidently, a reversal of the synonymy of *P. longitarsis* and *A. attenuata*, i. e., proposing the former name as the junior synonym of the latter based on temporal priority, would result in a name change of a common Palaearctic species that has carried the same specific epithet for nearly two centuries and would consequently not be in the interest of the stability of nomenclature. Since Stephens is known for numerous erroneous generic assignments and misidentifications, the first step was to make sure that what he described as *A. attenuata* was in fact conspecific with *Parocyusa longitarsis*. On the occasion of a visit to The Natural History Museum, London, former curator Roger Booth kindly took the opportunity to examine the material standing as *A. attenuata* in the Stephens

collection. He found two specimens, one of them probably belonging to *Aloconota* THOMSON, 1858 and "clearly not the original" and one "mounted on a card with a blue oval label, 2771", and confirms "that this labelled specimen is *Tetralaucopora longitarsis* (ERICHSON)" (R. Booth, e-mail 19 February, 2020). The number 2771 is identical to that used by STEPHENS (1839) for *A. attenuata*. Since STEPHENS (1832) based the original description of *A. attenuata* on material from the Marsham collection, the bulk of which he had acquired earlier (HAMMOND 1972), and specimens originating from the Marsham collection may either bear a white, a yellow and white, or a blue label (HAMMOND 1972), there is no reasonable doubt that the said specimen in fact represents a (the?) type.

In order to preserve and stabilize *Parocyusa longitarsis* as the valid name, Article 23.9 of the Code (ICZN 1999) is applied. As outlined above, the provision that *A. attenuata* has not been used as a valid name after 1899 is met. The specific epithet *longitarsis*, in contrast, has been used as the valid name of a common species in a great number of works by significantly more than 10 authors in the past 50 years. In order to meet the requirements of the Code, a selection of 29 publications (numerous additional works could be found without great effort), in which *P. longitarsis* is used as the valid name of the species in question, is provided: ASSING (2003a, 2007, 2014a, 2016b, 2017a, b), ASSING & FELDMANN (2012), ASSING & SCHÜLKE (2006, 2007), ASSING & WUNDERLE (2001b), DROST & CUPPEN (2008), JÄGER et al. (2016), KLEEBERG (2012, 2016), KÖHLER (2014), KOSTENBADER (2012), LOHSE (1974, 1998), NEWTON (2019), PAŚNIK (2001), RENNER (2011), SCHILOW (1979), SCHOLZE et al. (2016), SCHÜLKE & SMETANA (2015), SMETANA (2004), UHLIG et al. (2006), VOGEL (2017), ZANETTI (2015), ZANETTI et al. (2016). In consequence, the following synonymy is now formally established according to Article 23.9 of the Code (ICZN 1999): *Parocyusa longitarsis* (ERICHSON, 1839), nomen protectum = *Aleochara attenuata* STEPHENS, 1832, nomen oblitum.

The original description of *Chilopora syriaca* is based on two syntypes from two localities in Lebanon (SAULCY 1865). The type material is not accessible for scientific study owing to the current restrictive loan policy of the Muséum National d'Histoire Naturelle Paris, where it is most likely deposited. The species had been of doubtful identity until ASSING (2011b) referred this name to material from Northwest Iran and provided a redescription. However, the species previously interpreted as *P. syriaca* was never found again in the region where the type locality is situated.

The (mature) eight specimens from Israel and Lebanon listed above differ from the usual colouration of *P. longitarsis*, in that they are reddish with the head and the preapical abdominal segments blackish, and the elytra yellowish with the scutellar region and the postero-lateral portions of the elytra diffusely darker. This colouration pattern and other morphological characters perfectly match the original description of *P. syriaca*. Hence, since the aedeagus is identical to that of *P. longitarsis*, it follows that *P. syriaca* refers to a colour morph of *P. longitarsis* and is consequently a junior synonym of this name. The species from Northwest Iran is described as *P. maculipennis* below.

Based on the mouthparts (Figs 46–48), the sexual characters (Figs 42–45), and external characters, *P. longitarsis* is closely allied to, and congeneric with *P. holdhausi*.

Distribution and natural history: *Parocyusa longitarsis* is a hygrophilous species mostly found on banks of rivers and streams, but also in other wet and moist habitats. It is common in the West Palaearctic region. The records from China (Shanxi) and North

Korea (PAŚNIK 2001, SCHÜLKE & SMETANA 2015) may be based on a confusion with similar East Palaearctic species and require confirmation. *Parocyusa longitarsis* is here reported from the Canary Islands, the Russian South European territory, Lebanon, and Syria for the first time. It is not listed for Israel in SCHÜLKE & SMETANA (2015), but was recorded from there by ASSING & FELDMANN (2012).

Populations from the Middle East tend to be of paler colouration (especially of the legs) than those from other regions. Among the macropterous dark-coloured species of the genus, *P. longitarsis* is identified by relatively large size, the pronotal pubescence pattern (pubescence of midline directed anteriad in anterior third to anterior half, and particularly by its conspicuously large and uniquely shaped aedeagus.

Parocyusa bicolorata (ASSING, 2007), comb. n.

Tetralaucopora bicolorata ASSING, 2007: 189.
Tetralaucopora bicolorata: SCHÜLKE & SMETANA (2015).

Type material examined: see ASSING (2007).

Additional material examined: IRAN: Kerman: 8 exs., Kuhpaye, 30°29'N, 57°19'E, 1800 m, 29.IV.2007, leg. Frisch & Serri (MNB, cAss). **Buyer Ahmad-o-Kuhgiluye:** 1 ex., Gandizar, 30°53'N, 51°19'E, 1530 m, 10.V.2007, leg. Frisch & Serri (MNB).

As can be inferred from the similar pubescence pattern of the pronotum and the similar morphology of the aedeagus (prominent crista apicalis), this species is closely allied to *P. longitarsis*. For a detailed description and illustrations of the external and sexual characters see ASSING (2007).

The known distribution of *P. bicolorata* is confined to South Iran, where it has been recorded from Fars, Kerman, Yasd, and Buyer Ahmad-o-Kuhgiluye provinces, and Israel (ASSING 2007, 2011b, 2014b, and material listed above).

Parocyusa matarata sp.n.
(Figs 49–54)

Type material: Holotype ♂: "IRAN, Kerman Province, Bardsir–Baft, 10 km SE Qal'eh Askar (Mt Lalehzar), 2950 m, N29°27'57" E056°42'48", 22.05.2010, lg. Frisch & Serri / Holotypus ♂ *Parocyusa matarata* sp. n., det. V. Assing 2019" (MNB). **Paratypes:** 12 exs. [1 teneral]: same data as holotype (MNB, cAss); 11 exs. [2 teneral]: "IRAN, Kerman Province, Bardsir–Baft, 14 km SE Qal'eh Askar (Mt Lalehzar), 3240 m, N29°26'17" E056°44'00", 22.05.2010, lg. Frisch & Serri" (MNB, cAss); 1 ex.: "IRAN, Kerman Province, 6 km SE Saghdar: Banestan (Jebal Barez Mts) 1930 m, N28°49'37" E057°55'17", 27.05.2010, leg. Frisch" (MNB).

Etymology: The specific epithet is an adjective derived from the Latin noun *matara* (spear, lance) and alludes to the somewhat spearhead-shaped apex of the ventral process of the aedeagus (both in lateral and in ventral view).

Description: Body length 3.3–4.7 mm; length of forebody 1.6–2.2 mm. Habitus as in Fig. 49. Colouration: head and pronotum brown to blackish; elytra yellowish to reddish with the scutellar region and often also a lateral spot more or less distinctly infuscate; abdomen blackish-brown to blackish with the posterior margins of the segments, the paratergites of the anterior segments, and the apex (segments VIII–X) reddish; legs dark-yellow to pale-brown; antennae dark-brown to blackish with the basal 2–3 antennomeres yellow.

Head 1.05–1.10 times as long as broad, margins behind eyes converging posteriad in nearly straight line (i. e., posterior angles completely obsolete); punctation moderately fine and very dense; interstices with microsculpture, but somewhat glossy. Eyes approximately as long as postocular portion in dorsal view. Antenna (Fig. 50) slender, subject to weakly pronounced sexual dimorphism; antennomeres IV approximately as long as broad, X moderately transverse.

Pronotum weakly oblong to weakly transverse and 1.20–1.25 times as broad as head; punctation dense and fine, finer than that of head, and weakly granulose; pubescence of midline directed anteriad in anterior third and posteriad in posterior two-thirds.

Elytra approximately 0.9 times as long as pronotum; punctation fine and very dense. Hind wings fully developed. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen with very fine and very dense punctation; tergites III–V with, tergite VI without anterior impressions; posterior margin of tergite VII with palisade fringe.

♂: antenna on average slightly longer (usually 1.3–1.4 mm) and more slender, antennomere XI slightly longer, weakly constricted at apical third (Fig. 50); posterior margin of sternite VIII strongly convex; median lobe of aedeagus (Figs 51–52) approximately 0.7 mm long, with narrow and straight crista apicalis and the apex of the ventral process somewhat spearhead-shaped; paramere (Fig. 53) approximately 0.95 mm long, with moderately long and slender apical lobe.

♀: antenna on average slightly shorter (approximately 1.3 mm) and less slender, antennomere XI slightly shorter than in male and not distinctly constricted; posterior margin of sternite VIII weakly convex in the middle; spermatheca as in Fig. 54.

Comparative notes: This species is distinguished from other *Parocyusa* species distributed in South Iran by the shape of the distinctive median lobe of the aedeagus and additionally as follows:

from *P. longitarsis* by paler colouration of the elytra, much shorter elytra, completely absent posterior angles of the head (weakly indicated in *P. longitarsis*), much more distinct punctation of the head, shorter and less slender antennae, and by the shape of the spermatheca;

from *P. rubicunda* by the colouration of the forebody (*P. rubicunda*: elytra only slightly paler than pronotum at most), completely absent posterior angles of the head (weakly indicated in *P. rubicunda*), a less pronounced sexual dimorphism of the antennae (pronounced in *P. rubicunda*), a less slender pronotum with much finer and denser punctation and a different pubescence pattern, finer and denser punctation of the elytra, the shape of the male sternite VIII (*P. rubicunda*: posterior margin strongly produced in the middle), and the shape of the spermatheca;

from *P. bicolorata* by a less strongly bicoloured body, a more slender head with completely absent posterior angles, shorter antennae, more distinct punctation of the head, much shorter elytra, the shape of the male sternite VIII (*P. bicolorata*: posterior margin almost acutely produced, and by the shape of the spermatheca;

from *P. maculipennis* by a less shiny forebody with much finer and denser punctation, different colouration of the elytra, a posteriorly less strongly produced male sternite VIII, and by the shape of the forebody.

For illustrations of the aedeagus of the compared species see Figs 53–55, 68–79, 97–192, and ASSING (2007).

Distribution and natural history: The known distribution is confined to three localities in South Iran. The altitudes range from 1930 to 3240 m. Three specimens collected in May are teneral.

Parocyusa crebrepunctata (STRAND, 1962), comb. n.
(Fig. 55)

Chilopora crebrepunctata STRAND, 1962: 39.
Parocyusa crebrepunctata: LOHSE (1998).
Parocyusa (*Tetralaucopora*) *crebrepunctata*: SMETANA (2004).
Tetralaucopora crebrepunctata: ASSING & SCHÜLKE (2007).
Tetralaucopora crebrepunctata: SCHÜLKE & SMETANA (2015).

Material examined: **SWEDEN:** 1 ♂, Värmlands Län, Ekshärad Halle, 24.IX.1982, leg. Waldén (cGil).

The original description of this species is based on a single female collected "nahe Drontheim im mittleren Norwegen in Anspülicht" (STRAND 1962). The male sexual characters have never been illustrated. The above male from Sweden is in perfect agreement with the original description.

Among West Palaearctic *Parocyusa*, *P. crebrepunctata* is most similar to *P. longitarsis*, but distinguished as follows:

Punctation of forebody as dense as in *P. longitarsis*, but somewhat less fine. Pronotum less slender, slightly (1.03 x) broader than long (*P. longitarsis*: usually slightly oblong or as long as broad), lateral margins weakly convex (*P. longitarsis*: weakly sinuate), midline not impressed (*P. longitarsis*: usually with shallow median sulcus); legs dark-yellowish (*P. longitarsis*: usually darker with infuscate femora, except in populations from the Middle East).

♂: sternite VIII with strongly convex posterior margin; median lobe of aedeagus (Fig. 55) 0.53 mm long, with weakly pronounced crista apicalis (*P. longitarsis*: crista apicalis strongly prominent).

The species has been recorded only from Norway, Sweden, Finland, and North Germany (SCHÜLKE & SMETANA 2015). From a zoogeographic perspective, this distribution would seem rather implausible and the similar external characters and the similar shape of the median lobe of the aedeagus would suggest that *P. crebrepunctata* is conspecific with *P. baicalensis*. On the other hand, the aedeagus of the sole male of *P. crebrepunctata* examined is somewhat larger than that of *P. baicalensis*, and the elytra are longer. More material from the North Palaearctic is needed to clarify whether these differencese should be interpreted as intra- or interspecific variation.

Parocyusa baicalensis (EPPELSHEIM, 1893), comb.n.
(Figs 56–65)

Chilopora baicalensis EPPELSHEIM, 1893: 19 f.
Chilopora baicalensis: BERNHAUER & SCHEERPELTZ (1926).
Parocyusa (*Tetralaucopora*) *baicalensis*: SMETANA (2004).
Tetralaucopora baicalensis: ASSING & SCHÜLKE (2007).

Tetralaucopora baicalensis: Schülke & Smetana (2015).
Calodera hebeiensis Pace, 1999: 116; **syn.n.**
Ocyusa beijingensis Pace, 1999: 119; **syn.n.**

Type material examined: *C. baicalensis*: **Lectotype** ♀, present designation: "Ost-Sibirien. Quellgebiet des Irkut. Leder 1891 / *baicalensis* Eppelsh. / c. Epplsh. Steind. d. / *baicalensis* Epp. Deutsch. ent. Zeit. 1893. p. 19 / Typus / Lectotypus ♀ *Chilopora baicalensis* Eppelsheim, desig. V. Assing 2019 / *Parocyusa baicalensis* (Eppelsheim), det. V. Assing 2019" (NHMW). **Paralectotypes:** 1♀: same data as lectotype (NHMW); 1♀: same data, but without type label (NHMW).

C. hebeiensis: **Holotype** ♀: "CHINA Hebei, Chengde, 3.X.1993, G. de Rougemont / Holotypus *Calodera hebeiensis* m., det. R. Pace 95 / *Calodera hebeiensis* sp. n., det. R. Pace 1995 / *Parocyusa hebeiensis* (Pace), det. V. Assing 2003 / *Parocyusa baicalensis* (Eppelsheim), det. V. Assing 2019" (MHNG).

Additional material examined: RUSSIA: 1 ♂, Sakhalin, Korsakov distr., 3 km W Kirillovo vill., Uryun river, 22–23.VII.93, leg. Pütz & Wrase (cAss), 4 exs., Primorskiy Kray, Lazovski R., Lazo, Lazovka valley, 4–5.IV.1997, leg. Sundukov (MNB); 1 ex., same data, but 1–12.VI.1998 (MNB); 2 exs., Primorskiy Kray, Sikhote-Alinsky Res., Dzhigitovka river, 44°50'N, 136°14'E, 30.VI.1999, leg. Sundukov (cAss); 6 ♀♀, Vladivostok env., "Seitengraben des Prwaja-Rjetschka Tales", leg. Frieb (NHMW).

Comment: The original description of *P. baicalensis* is based on "Wenige Stücke" from the Baikal region (Eppelsheim 1893). Three syntypes, all of them females, were located in the Eppelsheim collection at the NHMW. A specimen in good condition is designated as the lectotype.

Calodera hebeiensis was described based on a unique female from "China, Hebei, Chengde" (Pace 1999) (male unknown). The holotype was examined by Assing (2003a), who transferred the species to *Parocyusa*. A re-examination of the specimen revealed that it is conspecific with *P. baicalensis*.

Pace (1999) described *Ocyusa beijingensis* based on a male holotype and eight female paratypes from three localities in Beijing, China. As can be inferred from the illustrations of the aedeagus and the spermatheca (Pace 1999: figures 52–54), the type material is undoubtedly conspecific with *P. baicalensis*.

Redescription: Body length 2.8–4.0 mm; length of forebody 1.5–1.7 mm. Habitus as in Figs 56–57. Colouration: head and pronotum dark-brown to blackish; elytra dark-yellow to blackish-brown; abdomen brown with segment VI and the anterior portion of VII blackish to uniformly blackish; legs yellow; antennae dark-yellow to brown. Whole body matt.

Head (Fig. 58) weakly oblong or as long as broad; punctation dense and extremely fine, visible in the pronounced microreticulation only at high magnification. Eyes approximately as long as postocular portion in dorsal view. Antenna 1.1–1.2 mm long; antennomeres IV–V weakly oblong, V–VI approximately as long as broad, VII–X weakly transverse, X much less than 1.5 times as broad as long, and XI approximately as long as the combined length of IX–X, or nearly so.

Pronotum (Fig. 58) weakly transverse, approximately 1.05 times as broad as long and 1.15–1.2 times as broad as head; punctation and microsculpture similar to those of head; pubescence of midline directed posteriad.

Elytra (Fig. 58) approximately 0.95 times as long as pronotum; punctation extremely dense and fine, but slightly more distinct than that of head and pronotum; microsculpture present. Metatarsomere I long and slender, as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 59): tergites III–V with, tergite VI without anterior impressions; punctation extremely fine and dense; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI weakly constricted in the middle; posterior margin of sternite VIII strongly convexly produced (Fig. 66); median lobe of aedeagus (Figs 60–62) relatively small, 0.38–0.44 mm long, with narrow crista apicalis; paramere (Fig. 63) 0.75–0.80 mm long, with long and slender apical lobe.

♀: antennomere XI without constriction; sternite VIII (Fig. 67) with convex posterior margin; spermatheca as in Figs 64–65.

Comparative notes: This species is distinguished from *P. longitarsis* by smaller body size, shorter and less massive antennae, paler colouration (especially of the antennae and legs), an even less shiny forebody, a transverse and less convex (cross-section) pronotum, and the shape of the spermatheca. It differs from *P. rubicunda* by uniformly yellow and finer antennae, a much less shiny body, a transverse and less convex (cross-section) pronotum, more pronounced microsculpture and much less distinct punctation of the whole body, and by a more slender spermatheca of different shape.

Distribution: This species is currently known from several localities in East Siberia and the Russian Far East, including Sakhalin.

Parocyusa japonica (CAMERON, 1933), comb.n.
(Fig. 325)

Chilopora japonica CAMERON, 1933: 217f.

Type material examined: Syntype ♀ [dissected prior to present study]: "Kagoshima, 22.3 12 / *Chilopora japonica* Cam. Type / *japonica* Cam. / Syntype / M.Cameron Bequest. B.M. 1955-147. / *Chilopora japonica* Cam., P.M. Hammond 1973, Syntype / Lectotype *Chilopora japonica* Cameron, 1933, des. Maruyama 2001" (BMNH).

Comment: The original description is based on "Two examples" from "Kagoshima", Japan (CAMERON 1933). Only one syntype, a female, is deposited in the Cameron collection (BMNH). This specimen was examined and labelled as the lectotype by Munetoshi Maruyama in 2001. To my knowledge, this designation has never been published, so that the specimen has syntype status.

Previously assigned to *Tetralaucopora* (SCHÜLKE & SMETANA 2015), this species is moved to *Parocyusa*. The status of *P. japonica* requires revision. In external characters, the examined syntype is practically identical to *P. baicalensis*, except for slightly longer elytra. The spermatheca (Fig. 325) is similar in the shape of the distal portion and the length of the proximal portion, but the latter is of somewhat different shape. A male would be required to decide if the observed differences should be attributed to intra- or interspecific variation.

Parocyusa fuliginosa (CASEY, 1906), comb.n.
(Figs 321–324)

Chilopora fuliginosa CASEY, 1906: 307.

Material examined: CANADA: 1 ♂, Ontario, Algoma Co., S Wawa, Michipicoten River, 5.IX.1980, leg. Baranowski (LFC).

Comment: *Parocyusa fuliginosa* has been recorded from various regions in the U.S. and Canada (Newton 2019). This species is similar (and evidently closely related) to *P. baicalensis*, but distinguished from this species by a significantly longer male antennomere XI (approximately three times as long as broad) (Fig. 322), longer elytra (Fig. 321), and a larger aedeagus with a ventral process of slightly different shape (Fig. 323). The paramere is illustrated in Fig. 324.

Parocyusa rubicunda (Erichson, 1837), comb.n.

(Figs 68–79, 164)

Tachyusa rubicunda Erichson, 1837: 309.
Ocalea oblita Heer, 1839: 348.
Chilopora cingulata Kraatz, 1856: 148; **syn.n.**
Chilopora rubicunda: Bernhauer & Scheerpeltz (1926).
Chilopora (*Chilopora*) *rubicunda*: Lohse (1974).
Parocyusa rubicunda: Lohse (1989).
Parocyusa (*Tetralaucopora*) *rubicunda*: Smetana (2004).
Tetralaucopora rubicunda: Assing & Schülke (2007).
Tetralaucopora rubicunda: Schülke & Smetana (2015).

Type material examined: *T. rubicunda*: **Lectotype** ♀: "5322 / *rubicunda* Er., Berol. Schüpp. Web. / Lectotypus *Chilopora rubicunda* Er, W. Schilow des. 978" (MNB).

C. cingulata: **Lectotype** ♀: "Coll. Kraatz / Syntypus / *cingulata* mihi, Bavar. Waltl. / Lectotypus *Chilopora cingulata* Kr., W. Schilow des. 97 / DEI Müncheberg Col – 02278 / *Tetralaucopora rubicunda* (Erichson), det. V. Assing 2014" (SDEI). **Paralectotypes:** 1 ♀: "Syntypus / Bavar. / Coll. Kraatz / Paralectotypus *Chilopora cingulata* Kr., W. Schilow des. / DEI Müncheberg Col – 02279 / *Tetralaucopora rubicunda* (Erichson), det. V. Assing 2014" (SDEI).

Material of uncertain status: 2 ♀♀: "Paralectotypus *Chilopora rubicunda* Er, W. Schilow des. 978" (MNB); 1 ♀: "Aust / aus Syntypen *rubicunda* Er. / *Chilopora cingulata* Kr., W. Schilow det. 1978 / *Parocyusa rubicunda* (Erichson), det. V. Assing 2017" (MNB).

Additional material examined: **SWEDEN:** 1 ♀, Messaure env., Kaltisjokk, 66°42'N, 20°25'E, 29.VIII.1967, leg. Thomas (MHNG). **FRANCE:** 3 ♀♀, Hautes-Pyrénées, leg. Pandellé (NHMW); 1 ♀, Rhône-Alpes, Ardéche, flood debris, 12.V.1983, leg. Assing (cAss); 1 ex., Provence, Digne (MHNG); 1 ♀, 6 exs., Provence, Alpes-Maritimes, Vesubie inundation, 20.V.1950 (MHNG); 1 ♀, same data, but VI.1957 (MHNG); 1 ♀, Provence, Alpes-Maritimes, La Croix, 10.IV.1948 (MHNG); 1 ♀, Provence, Var, Frejus, II.1947 (MHNG); 3 ♀♀, Provence, Var, Gogolin, 12.VI.1953 (MHNG); 2 ♀♀, Provence, Hautes-Alpes, Abriès, 21.VI.1976, leg. Lohse (MHNG); 7 ♀♀, Alsace, Colmar (MHNG); 2 ♀♀, Corse, Ghisoni, leg. Morel (MHNG). **GERMANY: Schleswig-Holstein:** 1 ♀, Husum env., Beltringharder Koog, salt meadow, pitfall trap, IX.1991 (cAss); 2 ♀♀, same data, but VI.1991 (cAss). **Hamburg:** 1 ♀, Lokstedt, 10.X.1949 (MHNG). **Niedersachsen:** 1 ♀, Braunschweig env., Hötzum, arable land, pitfall trap, 15.V.1988 (cAss); 1 ♀, Harz, Goslar-Steinfeld, Oker river bank, 51°55'21"N, 10°29'30"E, 110 m, gravel floated, 21.V.2020, leg. Assing (cAss); 1 ♀, Aurich-Sandhorst, sandy margin of ditch, pitfall, 4–26.VII.2012, leg. Schmidt (cShm); 1 ♀, Stelle, 21.II.1989, leg. Lohse (MHNG). **Hessen:** 3 ♀♀, Bad Hersfeld, Obersberg, pitfall trap, 1876, leg. Puthz (MHNG); 1 ♀, same data, but 1979 (MHNG). **Rheinland-Pfalz:** 1 ♀, Deidesheim (NHMW). **Baden-Württemberg**: 1 ex. [det. Feldmann], Kaiserstuhl, W Oberbergen, 48°06'N, 7°39'E, 350 m, pitfall trap, V.1988 (cFel); 1 ex., same data, but V.1989 (cFel). **Bayern:** 1 ♀, München env., Ascholding, Isar bank, 5.VIII.1977, leg. Lohse (MHNG); 1 ♀, München env., Grünwald, 24.VI.1948, leg. Freude (MHNG); 1 ♀ [teneral], same data, but 4.V.1949 (MHNG); 7 ♀♀, München env., Sylvensteinstausee, 5.VIII.1977, leg. Lohse (MHNG); 1 ♀, München, 16.VIII.1880, leg. Harold (NHMW); 1 ♀, München, 6.VIII.1880, leg. Harold (NHMW); 1 ♀, München, 14.VIII.1880 (NHMW); 2 ♀♀, München, leg. Korb (NHMW); 1 ex., München, Großhesselohe, 16.VI.1910, leg. Ihssen (cFel). **Brandenburg:** 1 ♀, Landkreis Barnim, Joachimstal–Glambeck–Parlow, 52°59'–53°01N, 13°43–49'E, car-net, 28.V.2018, leg. Schülke (MNB). **Sachsen:** 3 ♀♀, Leipzig, Elsterflutbett, flood debris, 11–12.VI.1961, leg. Dorn (SDEI, cAss); 1 ♀, Leipzig, leg. Dorn (NHMW). **SWITZERLAND: Bern:** 1 ♂, Gasterntal, 25.VIII.–1.IX.2009, 1400 m, leg. Zigerli

(cAss); 1 ♂ [det. Feldmann], Gasterntal, 1360 m, 13–20.X.2008, leg. Zigerli (cFel); 6 ♀♀, Büren, leg. Rätzer, etc. (NHMW). **Grisons:** 2 ♀♀, Saas (MHNG). **Valais:** 1 ♀, Siders [46°18'N, 7°32'E], leg. Simon (NHMW); 1 ♀, Zermatt env., leg. Bänninger (NHMW). **Ticino:** 1 ex., Magadino, IX.1966 (NHMW). **Swiss or Italian territory:** 1 ♂, 1 ♀, Monte Rosa (MHNG). **AUSTRIA: Vorarlberg:** 1 ♀, W Bregenz, shore of Bodensee, Speicherwiesen, 14.V.1999, leg. Assing (cAss); 2 ♀♀, Bodensee, Hard, 400 m, 2.VI.2001, leg. Lott (BMNH); 1 ♀, Feldkirch, leg. Handerek (NHMW). **Tirol:** 1 ♀, Tannheim, flood debris, VIII.1950, leg. Rief (MHNG); 6 ♀♀, Innsbruck, leg. Breit (NHMW); 1 ♀ [teneral], Innsbruck, 8.V.1927, leg. Pechlaner (NHMW); 3 ♀♀ [all teneral], Innsbruck, bank of Inn river, 29.V.1927, leg. Pechlaner (NHMW); 2 exs., Innsbruck, VI.1932, leg. Minarz (NHMW); 1 ♀, Trins, leg. Franz (NHMW); 2 ♀♀ [teneral], Gschnitztal [47°03'N, 11°21'E], leg. Franz (NHMW); 1 ♀, locality not specified (NHMW). **Salzburg:** 2 ♀♀, Badgastein, Grüner Baum, 16–30.IX.1952, leg. Benick (MHNG); 2 ♀♀, Badgastein, leg. Leeder, Skalitzky (NHMW); 1 ♀, Dienten am Hochkönig, leg. Leeder (NHMW); 2 ♀♀, Pinzgau, leg. Petz (NHMW); 5 ♀♀, Fuscher Tal, leg. Franz (NHMW); 1 ♀, Mariapfarr env., Lungau, leg. Franz (NHMW). **Oberösterreich:** 2 ♀♀, Ostermiething env., leg. Leeder (MHNG); 1 ♀, Wildshut, leg. Leeder (MHNG); 2 ♀♀, Albern, leg. Scheerpeltz (NHMW); 1 ♀, Frauenstein [47°51'N, 14°11'E], leg. Franz (NHMW). **Niederösterreich/Wien:** 1 ♀, Greifenstein, leg. Curti (MHNG); 11 ♀♀, Langenzersdorf, leg. Bernhauer, Luze (MHNG, NHMW); 3 ♀♀, Spillern, leg. Luze (NHMW); 4 ♀♀, Guntramsdorf, 12.V.1950, leg. Ebner (NHMW); 1 ♀, Tullnerbach, compost, IX.1943, leg. Moczarski (NHMW); 1 ♀, Tullnerbach, 16.VIII.1942, leg. Scheerpeltz (NHMW); 4 ♀♀, Donau-Auen, leg. Breit, Wörz (MHNG, NHMW); 12 ♀♀, Kritzendorf, flood, 26.V.1912, leg. Curti (MHNG, NHMW); 1 ♀, Herzogenburg (NHMW); 1 ♀, Mödling, sand pit, leg. Scheerpeltz (NHMW); 2 ♀♀, Mödling, leg. Breit (NHMW); 1 ♀, Mauerbach, leg. Hicker (NHMW); 2 ♀♀, Stockerau, leg. Bernhauer, Leeder (NHMW); 1 ♀, Bisamberg, leg. Spaeth (NHMW); 2 exs., Lunz am See (NHMW); 2 exs., Gars [48°36'N, 15°40'E], leg. Minarz (NHMW); 1 ex., Wachau, leg. Minarz (NHMW); 1 ♀, Wien, Pötzleinsdorfer Park, 1914 (MHNG); 6 ♀♀, Wien, leg. Curti, Winkler, etc. (MHNG, NHMW). **Kärnten:** 1 ♀, Thörl-Maglern, Villach env., 14.VI.1962, leg. Moravec (cAss); 1 ♀, Heiligenblut [47°02'N, 12°50'E], leg. Franz (NHMW). **Steiermark:** 2 ♀♀, Turnau (NHMW); 2 ♀♀, Graz env., leg. Strupi, etc. (NHMW); 2 ♀♀, Ehrenhausen, leg. Haberditz (NHMW); 1 ♀ Selztal env., Pürgschachenmoor, leg. Franz (NHMW); 3 ♀♀, Frein env., bank of Mürz river, leg. Franz (NHMW, cAss); 2 ♂♂, 13 ♀♀, Hochschwab, Bodenbauer, 850–1000 m, gravel of stream bank, 26.VII.–5.VIII.1921, leg. Scheerpeltz & Winkler (NHMW); 1 ex., "Gesäuse" leg. Franz (NHMW). **Burgenland:** 1 ♀, Neusiedlersee, Teufelsgraben, 29.VIII.1995, leg. Assing (cAss); 2 ♀♀, Neusiedl am See, leg. Scheerpeltz (NHMW); 1 ♀, Bruck an der Leitha, 25.IX.1992, leg. Hirgstetter (cAss); 1 ♀, Zurndorf, leg. Franz (NHMW). **Locality not specified:** 1 ♀, "Austria" (MHNG). **ITALY: Trento-Alto Adige:** 1 ♀, Storo, 28.V.1977, leg. Lohse (MHNG); 2 ♀♀, Ötztaler Alpen, Schnalstal, 28.V.1969, leg. Lohse (MHNG); 1 ♀, Solda [46°32'N, 10°35'E], VII.1937, leg. Bernhauer (NHMW); 1 ex. [det. Feldmann], Val di Fassa, Canazei, 1400 m, 24.VII.1954, leg. Schultz (cFel). **Piemonte:** 1 ex., Moncalieri, 15.VI.1912 (MHNG); 3 ♀♀, Biella (MHNG); 1 ♀, Oleggio Castello, 3.X.1889 (MHNG); 4 exs., "Piemont", leg. Bargagli (NHMW). **Lombardia:** 1 ♀, Milano, 15.V.1906 (MHNG); 1 ♀, confluence of Po and Ticino rivers, 9.X.1961, leg. Rosa (NHMW); 1 ex., Grigna, Pian dei Resinelli, 1300 m, 12.VI.1961, leg. Rosa (NHMW). **Veneto:** 2 exs., Verona, Zevio env., Adige river, 23.VII.2000, leg. Ziegler (cZie, cAss). **Friuli-Venezia Giulia:** 1 ex., Tarvisio, 1892, leg. Ganglbauer (NHMW). **Toscana:** 4 ♀♀, Minucciano (LU), Lago Gramolazzo, 680 m, 20.V.1998, leg. Angelini (cAss). **Basilicata:** 3 ♂♂, 4 ♀♀, Vaglio Basilicata (PZ) [40°39'N, 15°55'E], 600 m, Basento river bank, 10.IX.1994, leg. Angelini (cAss). **Calabria:** 1 ♀, Serrata (RC) [38°30'N, 16°06'E], Marepotamo river, 19.IV.1995, leg. Crovato (cAss); 3 exs., Santa Christina, leg. Paganetti (NHMW). **POLAND:** 3 ♀♀, Legnica, leg. Schwarz (NHMW); 3 ♀♀, Cieszyn, leg. Prock, Wanka (NHMW). **POLISH OR CZECH TERRITORY:** 1 ♀, "Silesia", leg. Letzner (NHMW). **CZECH REPUBLIC:** 1 ex., Paskov, leg. Reitter (MHNG); 6 ♀♀, Paskov, leg. Koltze (NHMW); 1 ♀, Štvanice [50°06'N, 14°26'E], VI.1894 (NHMW); 2 exs., Praha, leg. Skalitzky (NHMW); 1 ♀, Most (NHMW); 1 ♀, Brandýs nad Labem, leg. Skalitzky (NHMW); 1 ♀, Mladá Boleslav, leg. Skalitzky (NHMW); 3 ♀♀, Ostrava, leg. Zoufal (NHMW); 2 ♀♀, "Bohemia", leg. Roubal (MHNG); 1 ♀, Moravia, Beskidy, leg. Reitter (NHMW); 5 ♀♀, "Moravia"/"Morav.", leg. Reitter, etc. (MHNG); 3 exs., "Mähren" (MHNG). **SLOVAKIA:** 1 ♂, Nizke Tatry, Jasna, Demanovska Dolina, 1200 m, 5–12.VI.1999, leg. Starke (cFel); 3 exs., Štúrovo, leg. Roubal (MHNG); 2 exs., Bratislava, leg. Weber (NHMW); 3 exs., Beckovský [48°47'N, 17°54'E], leg. Brancsik (NHMW). **HUNGARY:** 2 ♀♀, Sopron, Neusiedlersee, 12.V.2002, leg. Lott (BMNH); 1 ex., Köszeg, leg. Weber (NHMW); 1 ex., Zákány, 25.V.1884, leg. Chyzer (NHMW). **ROMANIA:** 3 ♀♀, Udvarhely, Gagy, 17.IX.2016, leg. Fodor (HNHM, cAss); 3 ♀♀, Csik, Kászonfürdő, 3.V.–9.VI.1943, leg. Fodor (HNHM, cAss); 1 ♀, Sibiu, leg. Skalitzky (NHMW); 1 ♀, Pasul Turnu Roşu [45°33'N, 24°16'E], leg.

Breit (NHMW); 3 exs., "Siebenbürg.", 1886, leg. Kimakovicz (NHMW). **SLOVENIA:** 1 ex., Brežice, 31.V.1933, leg. Kodric (MHNG); 1 ♀, Podgrad, V.1909, leg. Krekich (NHMW). **CROATIA:** 2 exs., Fužine [45°18'N, 14°43'E], leg. Ganglbauer (NHMW); 1 ♀, Fužine, 1897, leg. Bernhauer (NHMW); 1 ex., "Croatia", leg. Apfelbeck (NHMW). **SERBIA:** 1 ♀, Belgrad, Donau river, 19.IX.1973, leg. Puthz (cAss). **BOSNIA-HERZEGOVINA:** 1 ex., Gacko [43°10'N, 18°32'E], leg. Hoffmann (NHMW). **MONTENEGRO:** 2 ♀♀, Morača Monastery env., 20.IX.1973, leg. Puthz (MHNG). **BULGARIA:** 1 ♀, Pirin range, Sandanski, VIII.1985, leg. Schülke (cAss). **GREECE:** 1 ♀, Pelopónnisos, Patras env., wetland, 24.III.1985, leg. Assing (cAss). **TURKEY: Gümüşhane:** 3 ♀♀, 12 km NE Gümüşhane, 40°31'N, 39°33'E, 1300 m, 12.VI.1998, leg. Solodovnikov (cAss). **Rize:** 1 ♀, ca. 30 km SW Hopa, river valley of Çaĝlayan D., 41°15'N, 41°13'E, 500 m, 29.VI.1998, leg. Solodovnikov (cAss). **Artvin:** 1 ♂ [teneral], ca. 40 km SW Artvin, Barhal river valley, 40°57'N, 41°29'E, 1800 m, 23.VI.1998, leg. Solodovnikov (cAss); 1 ♂, 8 km E Şavšat, Karagöl Sahara Nat. Park, 41°14'N, 42°27'E, 1930 m, wet coniferous forest, 4–5.VII.2004, leg. Hájek & Ružička (cAss). **Erzurum:** 3 ♀♀, NW Tortum, Mescit Dağları, 40°36'N, 41°23'E, 2100 m, pine forest, 20.VI.1998, leg. Solodovnikov (cAss). **Iğdir:** 1 ♀, 10 km SE Iğdir, 850 m, 21.VI.1993, leg. Schulz (cAss). **Adana:** 1 ♀, torrent near Nergizlik Baraji, 37°19'N, 35°02'E, 16.IV.2014, leg. Rossi & Kutlay (cAss). **Osmaniye:** 5 ♀♀, 12 km N Andırın, 37°39'N, 36°21'E, 1150 m, 1–2.V.2005, leg. Brachat & Meybohm (cAss); 1 ♂ [teneral], 6 km NE Osmaniye, 37°06'N, 36°19'E, 130 m, river bank washed, 10.IV.2004, leg. Assing & Schülke (cAss). **Gaziantep:** 1 ♀, N Birecik, 37°04'N, 37°58'E, 360 m, bank of Euphrat river, 24.IV.2004, leg. Brachat & Meybohm (cAss). **Malatya:** 1 ♀, Sürgü, 17.V.1970, leg. Zwick (MHNG). **UKRAINE:** 1 ♀, Odessa oblast, Krinichnoye env., shore of Yalpug lake, 5.V.2003, leg. Gontarenko (cGon); 1 ♀, Tsherniwzi (NHMW). **RUSSIA:** 2 ♀♀, Kaliningrad, Swetlogorsk, VIII.1934, leg. Benick (MHNG); 1 ♀, Warna, V.1940, leg. Caspers (MHNG); 1 ♀, Rjasan [54°37'N, 39°43'E], leg. Leder (NHMW). **GEORGIA:** 1 ♀, Khashuri, leg. Leder (NHMW); 1 ♀, Racha, 10 km W Lentekhi, 42°48'N, 42°38'E, 1100 m, 20.V.2016, leg. Brachat & Meybohm (cAss); 1 ♀, Racha, S Lailashi, 42°36'N, 42°51'E, 520 m, 21.V.2016, leg. Brachat & Meybohm (cAss). **ARMENIA:** see Assing & Schülke (2019). **NAGORNO-KARABAKH:** see Assing & Schülke (2019). **AZERBAIJAN:** 2 ♀♀, Lenkoran, leg. Leder (NHMW); 2 ♂♂, 2 ♀♀, Ordubad, leg. Leder (NHMW). **IRAN: Mazandaran:** 1 ♀, Takir env., 36°12'N, 52°04'E, 1600 m, 7.V.2010, leg. Frenzel (cAss). **Ardabil:** 17 exs., E Abi Beyglu, Saha Dam, 38°14'N, 48°40'E, 1470 m, X.2011, leg. Frisch (MNB, cAss); 6 exs., 15 km S Germi, Beldashi, 38°58'N, 48°00'E, 1270 m, 12.X.2011, leg. Frisch (MNB, cAss). **Gilan:** 14 exs., S Astara, 5 km W Lavandvil, Koteh Komeh, 38°18'N, 48°47'E, 180 m, 10.X.2011, leg. Frisch (MNB, cAss); 5 exs., S Astara, Lavandvil, 38°18'N, 48°50'E, 30 m, 10.X.2011, leg. Frisch (MNB); 1 ex., pass Khalkhal–Asalem, 37°36'N, 48°40'E, 2070 m, 13.X.2011, leg. Frisch (MNB); 10 exs., S Astara, W Lomir, 38°13'N, 48°53'E, 100 m, 10.X.2011, leg. Frisch (MNB, cAss). **Esfahan:** 4 exs., Meymeh–Kashan, 8 km NE Qohrud, 33°42'N, 51°27'E, 2010 m, 22.X.2011, leg. Frisch (MNB). **Ilam:** 1 ex., 10 km NW Eyvan, 5 km W Alamdar, 33°52'N, 46°11'E, 1170 m, 18.X.2011, leg. Frisch (MNB). **Lorestan:** 2 exs., 30 km E Kuhdasht, 33°35'N, 47°51'E, 1080 m, 17.X.2011, leg. Frisch (MNB, cAss). For previous records from Iran see Assing (2007, 2011). **KYRGYZSTAN:** 1 ♀, Naryn, Kitshij Naryn, Kaptshygaj gorge, 41°40'N, 76°28'E, 2500 m, 20–22.VII.2005, leg. Schmidt (cAss); 33 ♀♀, Issyk-Kul, 25 km W Balykchy, 2 km S Kek Mojnok Vtoroe, 42°27'N, 75°51'E, 1670 m, 18.VI.2011, leg. Frisch (MNB, cAss); 1 ♀, Issyk-Kul, Kyzyl-Tuu – Kyzyl-Suu, Barskoon–Barskaun pass, *Picea schrenkiana* forest, 42°03'N, 77°36'E, 2200 m, 23.VI.2011, leg. Frisch (cAss); 1 ♂, 1 ♀, Issyk-Kul, Balykchy – Kyzyl-Tuu, Kara-Talaa – Tuura-Suu, 42°09'N, 76°20'E, 2130 m, 20.VI.2011, leg. Frisch (MNB, cAss); 1 ♂, Issyk-Kul, Balykchy – Kyzyl-Tuu, Kara-Talaa – Tuura-Suu, 42°14'N, 76°20'E, 1900 m, 19.VI.2011, leg. Frisch (cAss); 1 ♀, Issyk-Kul, SW Kyzyl-Tuu, Temir–Kanat, 42°02'N, 76°57'E, 2260 m, 21.VI.2011, leg. Frisch (MNB). **KAZAKHSTAN:** 1 ♀, Zharkent [44°10'N, 80°00'E], leg. Winkler (NHMW). **TAJIKISTAN:** 1 ♀, Seravshan valley, Novabad, 10–11.VII.1990, leg. Schülke (MNB). **CANADA:** 1 ♀, British Columbia, 16 miles W Osoyoos, 5.VI.1968, leg. Campbell & Smetana (LFC). **LOCALITY NOT SPECIFIED, AMBIGUOUS, OR ILLEGIBLE:** 1 ex., "Styria" (NHMW); 17 exs., "Donauauen", leg. Breit (NHMW); 2 exs. "Kaukasus", leg. Leder (NHMW); 27 exs. (NHMW).

Comment: Erichson (1837) based the original description of *Tachyusa rubicunda* on two specimens, one "aus der Sammlung des verst. Weber" and another communicated to him by "Herr Schüppel". There are four specimens in the historical collection at the MNB which had been identified (and labelled) as type specimens of *T. rubicunda* by Schilow (1979); three of them were labelled as lectotype and paralectotypes, one

was identified as *Chilopora cingulata*. While the specimen labelled as the lectotype is undoubtedly a syntype, it is unclear which of the three remaining specimens represents the second syntype.

The original description of *Chilopora cingulata* is based on an unspecified number of syntypes collected in "Baiern von Waltl" (KRAATZ 1856). One of the two type specimens in the Kraatz collection at the SDEI was designated as the lectotype by SCHILOW (1979).

According to SCHILOW (1979), *Chilopora cingulata* is distinguished from *Parocyusa rubicunda* by vague differences in the shapes of the preapical antennomeres and the pronotal and elytral punctation. An examination of the type material of both names and of numerous additional specimens, however, yielded no evidence that they should represent distinct species.

Intraspecific variation: This species is extremely variable in colouration, which ranges from nearly uniformly dark to distinctly bicoloured with predominantly reddish-yellow pronotum, elytra, and the abdomen (usually with a spot on the elytra and the preapical abdominal segments more or less distinctly infuscate).

Comparative notes: Based on external characters, *Parocyusa rubicunda* is practically indistinguishable from *P. virilis* (see the following section). It is reliably separated from this species only by the significantly smaller aedeagus (median lobe approximately 0.6 mm long) with a smaller crista apicalis and a ventral process of slightly different shape (Figs 68–72) and by the structure of the spermatheca (distal portion of slightly different shape; proximal portion weakly sclerotized) (Figs 73–79).

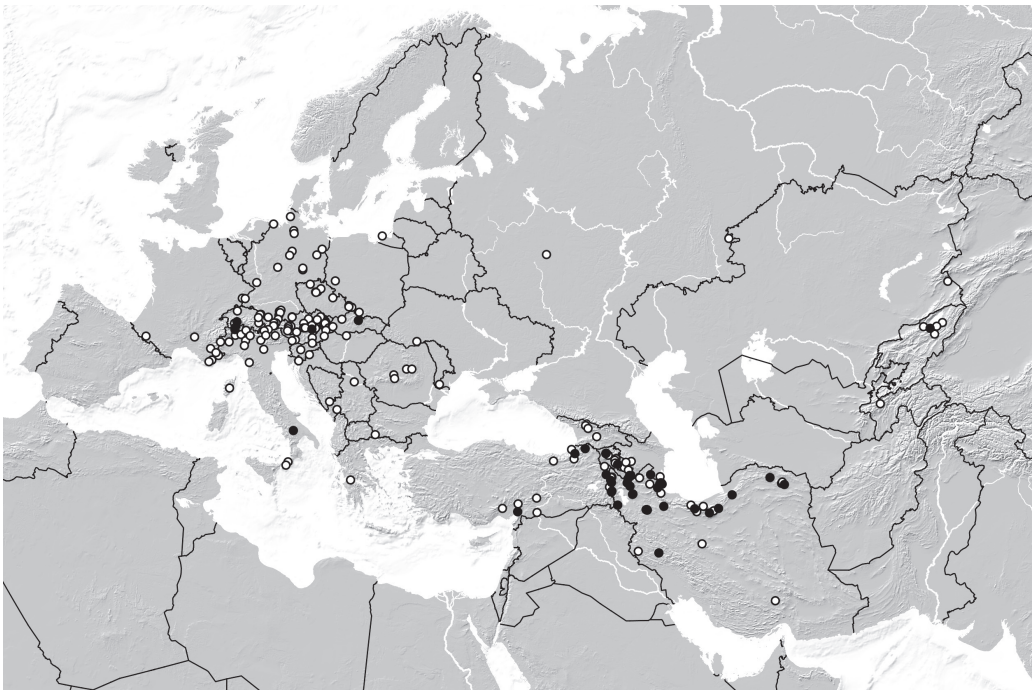


Fig. 164: Distribution of *Parocyusa rubicunda* in the West Palaearctic region, based on examined records. Black circles: male-based records; white circles: female-based and unsexed records.

Distribution and natural history: The known range of *Parocyusa rubicunda* extends from Middle Asia (Kyrgyzstan, Kazakhstan, Uzbekistan, Tajikistan) westwards to Scandinavia, Great Britain, and France (Schülke & Smetana 2015). The species is apparently adventive in North America; according to Brunke (in prep.), *Parocyusa americana* (Casey, 1906) represents a junior synonym of *P. rubicunda*. The revised distribution is mapped in Fig. 164. The above specimens from Serbia, Kyrgyzstan, and Tajikistan represent new country records.

Remarkably, the populations in the north and northwest of the range appear to be parthenogenetic. All the examined specimens from Germany, France, and, with one exception, from Kyrgyzstan are females. The northwesternmost records of males are from Slovakia and Switzerland. In the remainder of the distribution range, males are usually significantly rarer than females (Fig. 164). Among the Oxypodini, this phenomenon is paralleled by *Cousya nigrata* (Fairmaire & Laboulbène, 1856) (Assing 2018a).

Parocyusa virilis sp.n.

(Figs 80–91)

Type material: Holotype ♂: "RU [16] – W-Caucasus, 13 km SW Teberda, 1450 m, spruce forest, 43°19'54"N, 41°39'58"E, 22.VII.2011, V. Assing / Holotypus ♂ *Parocyusa virilis* sp. n., det. V. Assing 2019" (cAss). **Paratypes:** 6 ♂♂, 8 ♀♀: same data as holotype (cAss); 7 ♂♂, 9 ♀♀: "RU [19a] – W-Caucasus, 4 km NNE Teberda, 1250 m, Teberda river, 43°29'20"N, 41°45'23"E, 24.VII.2011, V. Assing" (cAss, cFel, MNB); 1 ♀: "RU [29] – W-Caucasus, 13 km SW Teberda, 1450 m, gravel river bank, 43°20'00"N, 41°39'57"E, 28.VII.2011, V. Assing" (cAss); 3 ♂♂, 3 ♀♀: "ARMENIA [19] – 35 km NW Sisian, 39°40'59"N, 45°46'50"E, 2070 m, stream valley, sifted, 3.VII.2016, V. Assing" (cAss); 2 ♂♂, 5 ♀♀: "ARMENIA [39] – 25 km SW Kapan, 39°04'01"N, 46°16'10"E, 2150 m, near stream, sifted, 10.VII.2016, V. Assing" (cAss); 5 exs.: same data, but leg. Schülke (MNB); 1 ♀: "ARMENIA [34] – WSW Kapan, S Lernadzor, 39°08'02"N, 46°13'07"E, 2000 m, litter nr stream, 13.VII.2018, V. Assing" (cAss); 1 ♀: same data, but leg. Schülke (MNB); 2 ♂♂, 2 ♀♀: "ARMENIA [35] – 25 km SW Kapan, 39°04'01"N, 46°16'10"E, 2150 m, near stream, sifted, 14.VII.2018, V. Assing" (cAss); 1 ♂: "Ca. b. Teberda, VI. 912 Roubal / *Chilopora* / *antennata*" (NHMW).

Etymology: The specific epithet (Latin, adjective: manly) alludes to the size of the aedeagus, the most evident character for distinguishing this species from the similar *P. rubicunda*.

Description: Body length 3.6–4.5 mm; length of forebody 1.7–2.0 mm. Habitus as in Fig. 80. Colouration: head blackish-brown to black; pronotum and elytra brown; abdomen with segments III–IV or III–V usually pale-brown (often with the antero-median portion more or less distinctly darker) and the apical segments blackish-brown to blackish; legs yellow; antennae brown to dark-brown with the basal 2–3 antennomeres yellowish.

Head approximately as long as broad; punctation fine and moderately dense; interstices with shallow microsculpture. Eyes approximately as long as postocular portion in dorsal view. Antenna (Figs 81–82) slender, subject to sexual dimorphism; antennomeres IV weakly oblong or approximately as long as broad, X weakly transverse.

Pronotum approximately 1.05 times as long as broad and 1.10–1.15 times as broad as head; punctation dense and fine, but distinct and somewhat granulose, much more distinct than that of head; pubescence of midline directed posteriad.

Elytra approximately 0.9 times as long as pronotum; punctation fine and very dense, less distinct than that of pronotum. Hind wings fully developed. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen with very fine and very dense punctation; tergites III–V with, tergite VI without anterior impressions; posterior margin of tergite VII with palisade fringe.

♂: antenna (Fig. 81) longer (usually 1.4–1.5 mm) and more slender; antennomeres X as long as broad or indistinctly transverse, XI elongate, nearly as long as the combined length of VIII–X, distinctly constricted in the middle; posterior margin of sternite VIII almost acutely produced in the middle (Fig. 83); median lobe of aedeagus (Figs 84–87) approximately 0.75 mm long, with large crista apicalis; paramere (Fig. 88) approximately 1.15 mm long, with long and very slender apical lobe.

♀: antenna (Fig. 82) shorter (approximately 1.3 mm) and less slender; preapical antennomeres distinctly transverse, but less than 1.5 times as broad as long, antennomere XI shorter than in male and weakly constricted in the middle at most; posterior margin of sternite VIII broadly convex; spermatheca as in Figs 89–91.

Comparative notes: This species is reliably distinguished from the highly similar *P. rubicunda* only by the morphology of the aedeagus (of larger size, with more pronounced crista apicalis, and with ventral process of slightly different shape; *P. rubicunda*: median lobe significantly smaller, approximately 0.6 mm long) and by the shape of the spermatheca (slightly different shape of distal portion; proximal portion more distinctly sclerotized).

Distribution and natural history: The distribution of *P. virilis* appears to be confined to the Caucasus region. At present it is known from three localities in the Northwest Caucasus and three in Armenia. The Armenian specimens were recorded as *P. rubicunda* by ASSING & SCHÜLKE (2019).

The material was collected from gravel or flood debris on river banks, or sifted from litter and moss near streams and in a moist spruce forest. The altitudes range from 1250 to 2150 m. One specimen collected in July is teneral.

Parocyusa gracillima sp.n.
(Figs 92–96)

Type material: Holotype ♂ [slightly teneral]: "TR. Hatay, 15 km WSW Antakya, Batiayaz, bottom of Musa dağ, ~ 500 m, 6.IV.2014, pitfall, leg. C. Reuter / Holotypus ♂ *Parocyusa gracillima* sp. n., det. V. Assing 2019" (cAss). **Paratype** ♂ [distinctly teneral]: same data as holotype (cFel).

Etymology: The specific epithet is the superlative of the Latin adjective gracilis and alludes to the slender habitus.

Description: Body length 4.0–4.2 mm; length of forebody 1.8–1.9 mm. Habitus as in Fig. 92. Colouration distinctive: head blackish; pronotum yellowish-red; elytra blackish-brown with the humeral portions, the posterior margin, and (only in the holotype) also the posterior two-thirds of the suture yellow; abdomen yellow with the antero-median portions of tergite III–V brown to blackish-brown and tergites VI (except for anterior margin) and VII (except for posterior portion) blackish; antennae with yellow bases, gradually becoming darker towards apex, apical antennomeres dark-brown.

Head (Fig. 93) weakly oblong, approximately 1.05 times as long as broad; punctation fine and moderately dense; interstices with shallow microsculpture, but glossy. Eyes approximately as long as postocular portion in dorsal view. Antenna slender, approximately 1.4 mm long; antennomeres IV–VI approximately as long as broad or weakly oblong, VII–IX weakly transverse, X distinctly longer than IX and as long as broad or weakly transverse, and XI elongate, approximately as long as the combined length of VIII–X, or nearly so.

Pronotum (Fig. 93) oblong, approximately 1.1 times as long as broad and 1.05 times as broad as head; punctation dense and somewhat granulose; interstices without microsculpture; pubescence of midline directed posteriad.

Elytra (Fig. 93) short, 0.80–0.84 times as long as pronotum; punctation fine, dense, and distinct. Hind wings present, but possibly of reduced length. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 94): tergites III–V with, tergite VI without, pronounced anterior impressions, these impressions with coarse punctation; remainder of tergal surfaces with very fine and very dense punctation; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI with constriction in the middle; posterior margin of sternite VIII obtusely produced; median lobe of aedeagus (Figs 95–96) approximately 0.54 mm long (basally somewhat damaged or deformed in the type specimens), with relatively large crista apicalis; paramere approximately 0.85 mm long, with moderately long and very slender apical lobe.

♀: unknown.

Comparative notes: This species is distinguished from other *Parocyusa* species known from the West Palaearctic region by its conspicuous colouration, a slender habitus, long and slender antennae with antennomere X distinctly longer than IX, the absence of microsculpture on the pronotum and elytra, conspicuously short elytra, the presence of coarse punctation in the anterior impressions of tergites III–V, and by the shape of the aedeagus.

Distribution and natural history: The type locality is situated in Hatay province, central southern Anatolia. The specimens, both of them teneral, were collected with pitfall traps at an altitude of 500 m in early April.

Parocyusa maculipennis sp.n.
(Figs 97–102)

Type material: Holotype ♂: "IRAN, Azarbayjan-e Gharbi, Khoy – Siyah Chesmeh road: 17 km W Zar Abad, 2640 m, N38°45'39" E044°28'35"E, 30.08.2008, lg. Frisch & Serri / Holotypus ♂ *Parocyusa maculipennis* sp. n., det. V. Assing 2019" (MNB). **Paratypes:** 4 ♀♀: same data as holotype (MNB, cAss); 2 ♀♀: "IRAN, Azarbayjan-e Gharbi, Khoy – Siyah Chesmeh road: 9 km W Zar Abad, 1970 m, N38°47'15" E044°32'08"E, 30.08.2008, lg. Frisch & Serri" (MNB); 1 ♀: "IRAN, Azarbayjan-e Gharbi, Khoy – Siyah Chesmeh road: 21 km W Zar Abad, 2350 m, N38°44'19" E044°28'09"E, 30.08.2008, lg. Frisch & Serri" (MNB).

Etymology: The specific epithet (Latin, adjective: with spotted wings) alludes to the colouration of the elytra.

Description: Body length 3.3–4.2 mm; length of forebody 1.7–1.9 mm. Habitus as in Fig. 97. Colouration: head blackish; pronotum dark-brown to blackish-brown; elytra dark-yellow to reddish, in posterior two-thirds 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 fourth of segments VII–VIII reddish, segments III–V occasionally brownish; legs reddish; antennae dark-brown, with the basal 2–3 antennomeres reddish.

Head (Fig. 98) 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. Antennae moderately slender, preapical antennomeres weakly transverse; antennomere XI with sexual dimorphism.

Pronotum (Fig. 98) approximately as wide as long and 1.15 times as wide as head, broadest near anterior angles, weakly tapering posteriad; lateral margins straight or weakly sinuate in posterior half in dorsal view; punctation fine, dense, and distinct; microsculpture absent; pubescence of midline directed posteriad.

Elytra (Fig. 98) approximately as long as pronotum; posterior margins strongly sinuate near postero-lateral angles; punctation very dense, less fine than that of pronotum. Hind wings fully developed. Metatarsomere I elongate, approximately as long as the combined length of metatasomeres II–IV.

Abdomen (Fig. 99) somewhat narrower than elytra; tergites III–V with pronounced anterior impressions, tergite VI without such impression; punctation fine and dense; interstices with or without shallow traces of microsculpture, glossy; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex in both sexes (ASSING 2011b: figure 109).

♂: antennomere XI slightly constricted in the middle and approximately as long as the combined length of VIII–X; sternite VIII obtusely pointed (ASSING 2011b: figure 107); median lobe of aedeagus (Figs 101–102) approximately 0.4 mm long, with narrow crista apicalis; paramere 0.63 mm long, with very long apical lobe.

♀: antennomere XI not constricted and approximately as long as the combined length of IX–X; posterior margin of sternite VIII broadly convex (ASSING 2011b: figure 110); spermatheca as in Fig. 100 and ASSING 2011b: figure 111).

Comparative notes: This distinctive species is characterized particularly by its colouration, the trapeziform pronotum, and by the morphology of the aedeagus.

Distribution and natural history: The currently known distribution is confined to three geographically close localities in Northwest Iran, where the specimens were collected at altitudes of 1970–2640 m. They were recorded as *Tetralaucopora syriaca* by ASSING (2011b).

***Parocyusa gilvipennis* sp.n.**
(Figs 103–108)

Type material: Holotype ♂: "S. Kasachstan, Koptschagaj a. Ili, 25.5.1978, leg. Hieke, Z.M. Berlin / Holotypus ♂ *Parocyusa gilvipennis* sp. n., det. V. Assing 2019" (MNB). **Paratype** ♂ [parts of antennae missing]: same data as holotype (cAss).

Etymology: The specific epithet (Latin, adjective: with yellow wings) alludes to the colouration of the elytra.

Description: Body length 4.0–4.2 mm; length of forebody 1.8 mm. Habitus as in Fig. 103. Colouration: head blackish-brown to black; pronotum castaneous; elytra yellow with the antertior and postero-lateral portions diffusely darker; abdomen reddish with most of tergite VI, the anterior portion of tergite VII, and (only in paratype) also the antero-median portions of tergites III–V infuscate; legs dark-yellow; antennae blackish-brown with the basal antennomeres more or less distinctly paler.

Head (Fig. 104) approximately as long as broad; punctation fine and moderately dense; interstices without microsculpture, glossy. Eyes longer than postocular portion in dorsal view. Antenna slender, approximately 1.2 mm long; antennomeres IV–V approximately as long as broad, VI–X weakly transverse, X less than 1.5 times as broad as long, and XI elongate, nearly as long as the combined length of VIII–X.

Pronotum (Fig. 104) transverse, approximately 1.1 times as broad as long and 1.25 times as broad as head; moderately dense and fine, but more distinct than that of head; interstices without microsculpture; pubescence of midline directed posteriad.

Elytra (Fig. 104) approximately as long as pronotum; punctation dense, distinct, and somewhat asperate. Hind wings present. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 105): tergites III–V with, tergite VI without, pronounced anterior impressions, these impressions with coarse punctation; remainder of tergal surfaces with moderately coarse and dense punctation; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI with weakly pronounced constriction in the middle; posterior margin of sternite VIII weakly, obtusely produced; median lobe of aedeagus (Figs 106–107) 0.46–0.47 mm long, with large crista apicalis; ventral process narrow and nearly straight in lateral view; paramere (Fig. 108) approximately 0.8 mm long, apical lobe of moderate length, less than half as long as basal portion.

♀: unknown.

Comparative notes: Among the *Parocyusa* species without an anterior impression on the abdominal tergite VI, *P. gilvipennis* is characterized particularly by the colouration, rather coarse punctation of the abdomen, and by the morphology of the aedeagus.

Distribution and natural history: The type locality is situated in South Kazakhstan. Additional data are not available.

Parocyusa ripicola (Cameron, 1939), comb.n.
(Figs 109–117)

Chilopora ripicola Cameron, 1939: 569.
Parocyusa (*Tetralaucopora*) *ripicola*: Smetana (2004).
Tetralaucopora ripicola: Assing & Schülke (2007).
Tetralaucopora ripicola: Schülke & Smetana (2015).

Type material examined: Lectotype ♂, present designation: "Dhobi Ghat, Mussoorie. / Dr. Cameron. 14.IV.22. / *C. ripicola* Cam. Type / M. Cameron. Bequest. B.M. 1955-147. / Syntype / Lectotypus ♂

Chilopora ripicola Cameron, desig. V. Assing 2019 / *Parocyusa ripicola* (Cameron), det. V. Assing 2019" (BMNH). **Paralectotypes**: 1 ♀: same data as lectotype (BMNH); 1 ♂: "Mossy Falls, Mussoorie. / Dr. Cameron. 20.III.1921. / M. Cameron. Bequest. B.M. 1955-147. / *ripicola* Cam. / Syntype" (BMNH); 1 ♀: "Aglar R., Tehri Garhwal. / Dr. Cameron. 28.III.1921. / M. Cameron. Bequest. B.M. 1955-147. / Syntype" (BMNH); 1 ♂, 1 ♀: "Aglar River, Mussoorie. Dr. Cameron. 16.IV.22. / M. Cameron. Bequest. B.M. 1955–147. / Syntype" (BMNH).

Additional material examined: INDIA: Uttarakhand: 2 ♀♀, Dehra Dun, 26.II.1921, leg. Cameron (BMNH); 1 ♀, Dehra Dun, Sulphur spring, 25.XI.1922, leg. Chatterjee (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "Mussooree district: Dhobi Ghat; Mossy Falls. Tehri Garwhan, Aglar River. W. Almora, Kumaun; Khaula" collected "On stream banks" (CAMERON 1939). A male in good condition from Dhobi Ghat is designated as the lectotype.

Redescription: Body length 3.2–4.4 mm; length of forebody 1.5–1.7 mm. Habitus as in Fig. 109. Colouration: head dark-brown to blackish-brown; pronotum pale-brown to dark-brown; elytra yellowish to reddish-yellow with the lateral and scutellar portions more or less distinctly darker; abdomen blackish with tergites III–V, the posterior margin of tergite VII, the posterior portion of tergite VIII, and segments IX–X brownish; antennae brown with the basal 2–3 antennomeres yellow.

Head (Fig. 110) transverse, approximately 1.15 times as broad as long; punctation dense and fine, but distinct; interstices with shallow microsculpture. Eyes approximately as long as postocular portion in dorsal view. Antenna 1.1–1.2 mm long; antennomeres IV–V weakly oblong, V approximately as long as broad, VI–X weakly transverse, X much less than 1.5 times as broad as long, and XI as long as (♀) or longer than (♂) the combined length of IX–X.

Pronotum (Fig. 110) approximately 1.15 times as broad as long, broadest in anterior half, and 1.15 times as broad as head; punctation dense and fine, slightly more distinct than that of head; pubescence of midline directed posteriad.

Elytra (Fig. 110) slightly longer than pronotum; punctation dense and fine, but slightly more distinct than that of head and pronotum; microsculpture present. Metatarsomere I as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 111): tergites III–V with distinct, tergite VI with shallow anterior impressions; punctation moderately dense and moderately fine (less dense and more distinct than in most other species of the genus); anterior impressions of tergites III–VI with rather coarse punctation; interstices without distinct microreticulation, glossy; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI constricted, longer than combined length of antennomeres IX and X; posterior margin convex produced in the middle (Fig. 112); median lobe of aedeagus (Figs 113–114) 0.45 mm long and of distinctive shape; paramere (Fig. 115) 0.85 mm long; apical lobe approximately half as long as basal portion and with pronounced basal projection.

♀: antennomere XI slightly shorter than that of male; sternite VIII (Fig. 116) with convex posterior margin; spermatheca as in Fig. 117.

Comparative notes: This species is characterized particularly by a distinctly transverse pronotum, moderately dense and rather distinct punctation of the abdomen, and by the shape of the median lobe of the aedeagus.

Distribution and natural history: The known distribution is confined to several localities in Uttarakhand, North India. According to Cameron (1939), the species is found on the banks of streams.

Parocyusa germana (Cameron, 1939), comb.n.
(Figs 118–126)

Chilopora germana Cameron, 1939: 569.
Parocyusa (*Tetralaucopora*) *germana*: Smetana (2004).
Tetralaucopora germana: Assing & Schülke (2007).
Tetralaucopora germana: Schülke & Smetana (2015).
Tetralaucopora (*Chiloporata*) *rougemonti* Pace, 1986: 184; **syn.n.**

Type material examined: *C. germana*: **Syntypes:** 1 ♀: "Dehra Dun, Dr. Cameron. 26-2-1921 / *C. germana* Cam. Type / M. Cameron. Bequest. B.M. 1955-147. / Syntype / *Parocyusa germana* (Cameron), det. V. Assing 2019" (BMNH); 1 ♀: "Dehra Dun, Dr. Cameron. 26/2 1921. / Stream shingle / *C. germana* Cam. / M. Cameron. Bequest. B.M. 1955-147. / Syntype / *Parocyusa germana* (Cameron), det. V. Assing 2019" (BMNH); 1 ♀: "Kumaon, W. Almora. India. H.G.C. / G.C. Champion coll., B.M. 1927-409 / Syntype" (BMNH); 1 ♀: "W. Almora, Kumaon, U.P., India. H.G.C. / *C. germana* Cam. / G.C. Champion coll., B.M. 1927-409 / Syntype" (BMNH).

Additional material examined: NEPAL: 1 ♂, Manaslu range, Marsyangdi Khola, above Besi Sahar, 1500 m, 13.III.1999, leg. Hirthe (cAss).

Comment: The original description of *P. germana* is based on an unspecified number of syntypes from "Dehra Dun. W. Almora, Kumaun" (Cameron 1939). Four syntypes were located in the BMNH collections. Since all of them are females and evidently conspecific, a lectotype designation is refrained from.

Tetralaucopora rougemonti was described based on a male holotype and seven paratypes (two males, five females) from "Nepal, Panauti" (Pace 1986), a locality to the southeast of Kathmandu. A comparison of the non-type male from Nepal, whose aedeagus matches the figures provided by Pace (1986), with the type material of *P. germana*, whose spermatheca is identical to that figured for *T. rougemonti* by Pace (1986), revealed no differences whatsoever suggesting that *P. germana* and *T. rougemonti* should represent distinct species. Hence the synonymy proposed above.

Redescription: Body length 3.2–3.8 mm; length of forebody 1.5–1.7 mm. Habitus as in Figs 118–119. External characters as in *P. ripicola*, except as follows:

Head and pronotum (Fig. 120) with extremely fine and extremely dense punctation and with distinct microsculpture rendering the surface practically matt. Pronotum more slender, approximately as long as broad, and more convex in cross-section. Abdomen (including anterior impressions of tergites III–V) with much finer and denser punctation (Fig. 121).

♂: antennomere XI weakly constricted in the middle, nearly as long as the combined length of antennomeres VIII–X; median lobe of aedeagus (Figs 122–123) 0.45 mm long; ventral process subapically dilated (ventral view) and with minute spines laterally; paramere (Fig. 124) 0.8 mm long; apical lobe approximately half as long as basal portion.

♀: antennomere XI with or without indistinct median constriction, slightly longer than the combined length of antennomeres IX and X; sternite VIII with convex posterior margin; spermatheca as in Figs 125–126.

Distribution and natural history: This species is known from two localities in Uttarakhand, North India, and two in Central Nepal. At least one of the syntypes was found in stream shingle. The specimens from Nepal were collected at altitudes of 1500–1600 m.

Parocyusa hartmanni (PACE, 2013), comb.n.
(Figs 127–129)

Ocalea hartmanni PACE, 2013: 359.

Type material examined: Holotype ♂: "NEPAL, Prov. Koshi, distr. Sankhuwasabha, Chichilla, NE, Sumpfloch, 27°28,35'N, 87°14,12'E, 2020 m NN, 29.XI.1998, leg. M. Hartmann / *Ocalea hartmanni* n. sp., det. R. Pace 2012 / Holotypus *Ocalea hartmanni* mihi, det. R. Pace 2012 / *Parocyusa hartmanni* (Pace), det. V. Assing 2019" (NME). **Paratypes**: 3 ♂♂, 2 ♀♀: same data as holotype (NME).

Additional material examined: NEPAL: 2 ♀♀, Manaslu, S Bara Pokhari, 2000 m, 7.IV.2003, leg. Schmidt (NME, cAss).

Comment: The description is based on six type specimens from Kosi province in East Nepal (PACE 2013).

Redescription: Elytra blackish, of similar colouration as head and pronotum. Other external characters as in *P. germana.*

♂: median lobe of aedeagus 0.53 mm long and shaped as in Figs 127–128; paramere (Fig. 129) 0.9 mm long; apical lobe approximately half as long as basal portion.

♀: spermatheca (Fig. 134) of similar shape as that of *P. germana*.

Distribution and natural history: The type locality is situated in East Nepal. The specimens were collected in a small swamp at an altitude of 2020 m.

Parocyusa subcyanea (CAMERON, 1939), comb.n.
(Fig. 130)

Chilopora subcyanea CAMERON, 1939: 570.
Parocyusa (*Tetralaucopora*) *subcyanea*: SMETANA (2004).
Tetralaucopora subcyanea: ASSING & SCHÜLKE (2007).
Tetralaucopora subcyanea: SCHÜLKE & SMETANA (2015).

Type material examined: Holotype ♀: "Sunderdhunga V., 8–12,000 ft., W. Almora. H.G.C. / *C. subcyanea* Cam. Type / Type / Holotype *subcyanea* Cameron, 1939, det. R.G. Booth 2009 / *Tetralaucopora subcyanea* (Cameron), det. V. Assing 2011" (BMNH).

Additional material examined: NEPAL: 1 ♂, 1 ♀, Annapurna Mts., Upper Larjung, 2550–2800 m, 28.IV.1999, leg. Krüger & Hirthe (cAss); 1 ♂ [without aedeagus], Annapurna, Ghara–Phalate, 1700–2000 m, 1.V.1999, leg. Krüger & Hirthe (NME).

Comment: The original description is based on a single specimen from "W. Almora : Sunderdhunga Valley, alt. 8000–12,000 feet" (CAMERON 1939). The examined holotype, a female, is slightly teneral.

Externally, *P. subcyanea* is characterized particularly by its colouration. The forebody is black with a more or less distinct bluish hue; the abdomen is blackish-brown to black, except for the conspicuously yellowish posterior margin of tergite VII. The median lobe of the aedeagus is illustrated in Fig. 130.

The above specimens from the Annapurna range represent the first records from Nepal. Previously, the species was known only from Uttarakhand in North India.

Parocyusa championi (Cameron, 1939), comb.n.
(Figs 131–134, 160–162)

Chilopora (*Tetralaucopora*) *championi* Cameron, 1939: 570 f.
Parocyusa (*Tetralaucopora*) *championi*: Smetana (2004).
Tetralaucopora championi: Assing & Schülke (2007).
Tetralaucopora championi: Schülke & Smetana (2015).

Type material examined: Lectotype ♀, present designation: "W. Almora, Kumaon, India. H.G.C. / *Chilopora Championi* Brh. n. sp. / *C. championi* Cam. Type / G.C. Champion coll., B.M. 1927-409 / Type / Lectotypus ♀ *Chilopora championi* Cameron, desig. V. Assing 2019 / *Parocyusa championi* (Cameron), det. V. Assing 2019" (BMNH). **Paralectotype**: 1 ex. [teneral]: "Paratype / W. Almora Divn, Kumaon U.P., Mar. 1917. HGC. / G.C. Champion coll., B.M. 1927-409 / *Chilopora championi* Cam. Paratype" (BMNH).

Additional material examined: AFGHANISTAN: 1 ♂, Kabul Province, Kabul City, X.2010, leg. Reuter (cAss).

Comment: The original description is based on an unspecified number of syntypes from "W. Almora, Kumaun" (Cameron 1939). One of the two syntypes located in the BMNH collections is teneral and malformed. The other, a female in good condition, is designated as the lectotype.

Redescription: Body length 3.8–4.4 mm; length of forebody 1.7–2.0 mm. Habitus as in Fig. 131. Colouration distinctive: head dark-brown to black; pronotum bright-red; elytra pale-reddish; abdomen dark-brown to black with the paratergites and the posterior margins of the segments yellowish to reddish; legs yellow; antennae with antennomeres I–IV yellowish and V–XI reddish to brown.

Head (Fig. 132) indistinctly oblong; punctation fine and moderately dense; interstices with shallow microsculpture, but glossy. Eyes slightly longer than postocular portion in dorsal view. Antenna slender, 1.3–1.4 mm long; antennomeres IV–V weakly oblong, V–X weakly transverse, and XI nearly as long as the combined length of VIII–X.

Pronotum (Fig. 132) 1.00–1.04 times as long as broad and 1.09–1.12 times as broad as head; punctation fine, dense, and somewhat granulose; interstices without microsculpture; pubescence of midline directed posteriad.

Elytra (Fig. 132) large and long, approximately as long as pronotum; punctation fine, dense, and distinct. Hind wings fully developed. Metatarsomere I long and slender, nearly as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 133): tergites III–VI with pronounced anterior impressions, these impressions with coarse punctation; remainder of tergal surfaces with extremely fine and very sparse punctation; interstices without microsculpture and very glossy; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI with constriction in the middle; posterior margin of sternite VIII obtusely angled in the middle; median lobe of aedeagus (Figs 160–161) 0.63 mm long, with relatively narrow crista apicalis.

♀: antennomere XI with indistinct median constriction; posterior margin of sternite VIII broadly convex (Fig. 162); spermatheca as in Fig. 134.

Comparative notes: This species is distinguished from other Palaearctic *Parocyusa* species by numerous conspicuous characters, particularly its colouration, deep and coarsely punctate anterior impressions on tergites III–VI, conspicuously glossy abdominal tergites with sparse and minute punctation and without microsculpture, and by the shape of the aedeagus. It additionally differs from *P. maculipennis*, with which it shares a reddish pronotum and coarsely punctate anterior impressions of tergites III–V by a more robust body with a broader and less oblong pronotum, much longer, larger, and uniformly pale-reddish elytra, and darker colouration of the abdominal segments III–V.

Distribution and natural history: This species is currently known only from Uttarakhand, North India, and Afghanistan (first record). The specimen from Kabul was collected in an artificial wetland: a regularly watered heap of leaves in a garden (REUTER pers. comm.).

Parocyusa lebedevi (BERNHAUER, 1928), comb.n.

(Fig. 135)

Chilopora (*Tetralaucopora*) *lebedevi* BERNHAUER, 1928: 20.
Parocyusa (*Tetralaucopora*) *lebedevi*: SMETANA (2004).
Tetralaucopora lebedevi: ASSING & SCHÜLKE (2007).
Tetralaucopora lebedevi: SCHÜLKE & SMETANA (2015).
Chilopora (*Tetralaucopora*) *bucharica* BERNHAUER, 1928: 20 f.; **syn.n.**

Type material examined: *Chilopora lebedevi*: see ASSING & SCHÜLKE (2007).

Chilopora bucharica: **Holotype** ♀ [pronotum malformed]: "Ost-Buchara. Tschitschantan. Coll. Hauser 1898. / *Chilopora bucharica* Bernh. Typus un. / Chicago NHMus. M.Bernhauer Collection / FMNHINS 4031750 / Holotypus ♀ *Chilopora bucharica* Bernhauer, rev. V. Assing 2020 / *Parocyusa lebedevi* (Bernhauer), det. V. Assing 2020" (FMNH).

Additional material examined: TAJIKISTAN: 3 ♂♂, 2 exs., Seravshan valley, Novabad, 10–11.VII.1990, leg. Schülke (MNB, cAss).

Comment: *Chilopora lebedevi* is the type species of *Tetralaucopora* BERNHAUER, 1928 and was originally described based on an unspecified number of syntypes from a locality in Turkmenistan. ASSING & SCHÜLKE (2007) designated the lectotype, a male deposited in the Bernhauer collection (Field Museum of Natural History, Chicago), and illustrated the habitus and the aedeagus. A new illustration of the habitus of this specimen is provided in Fig. 135.

The original description of *C. bucharica* is based on "ein einziges [...] Stück" from "Ost-Buchara, Tschitschantan" (BERNHAUER 1928). A study of the holotype, a female with a malformed pronotum, revealed no convincing characters suggesting that it should be distinct from *P. lebedevi*. The distinguishing characters mentioned by BERNHAUER (1928) are either within the range of intraspecific variation of *P. lebedevi* or based on the deformed pronotum.

Since, based on external and sexual characters, *P. lebedevi* is congeneric with *Parocyusa holdhausi*, the type species of *Parocyusa*, it follows that *Tetralaucopora* represents a junior synonym of *Parocyusa*.

The known distribution of *P. lebedevi* is confined to Turkmenistan and Tajikistan.

Parocyusa yunnanensis (Pace, 1993), comb.n.

Tetralaucopora (*Chiloporata*) *yunnanensis* Pace, 1993: 116.

Comment: The original description is based on a single male from "Yunnan, Dali" deposited in the Chinese Academy of Sciences, Beijing (Pace 1993). The median lobe of the aedeagus is characterized by a subapically undilated ventral process (distinguishing this species from *P. spinosa* and the geographically close *P. dilatata*) and by a large crista apicalis. For illustrations of the aedeagus see Pace (1993).

Parocyusa spinosa sp.n.
(Figs 136–141)

Type material: Holotype ♂: "CHINA [3] – S-Gansu, N Chengxian, W-Qinling Shan, 34°08'24"N, 105°46'43"E, 1750 m, 28.VII.2012, V. Assing / Holotypus ♂ *Parocyusa spinosa* sp. n., det. V. Assing 2019" (cAss).

Etymology: The specific epithet (Latin, adjective: spinose) alludes to the presence of numerous minute spines in the baso-lateral portions of the ventral process of the aedeagus.

Description: Body length 4.1 mm; length of forebody 1.85 mm. Habitus as in Fig. 136. Colouration: body blackish; legs uniformly pale-yellow; antennae dark-brown, with the basal two antennomeres yellowish-brown.

Head (Fig. 137) indistinctly oblong, nearly as broad as long; punctation dense and very fine, barely visible in the pronounced microreticulation even at higher magnification (100 x). Eyes large, slightly longer than postocular region in dorsal view. Antenna 1.2 mm long; antennomeres IV and V approximately as long as broad, VI–X of gradually increasing width and increasingly transverse, X approximately 1.5 times as broad as long, and XI elongate, approximately as long as the combined length of VIII–X, and constricted at apical third.

Pronotum (Fig. 137) approximately as long as broad and 1.16 times as broad as head; lateral margins indistinctly sinuate in posterior half in dorsal view; punctation extremely dense and fine, barely visible in the pronounced microsculpture; pubescence of midline directed posteriad.

Elytra (Fig. 137) approximately as long as pronotum; punctation extremely dense and fine, slightly more distinct than that of pronotum; microsculpture distinct in posterior portion. Hind wings present. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen (Fig. 138): tergites III–V with, tergite VI without anterior impressions; punctation extremely fine and dense, somewhat more distinct on anterior than on posterior tergites, even more distinct and sparser in anterior impressions of tergites III–V; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI constricted in the middle; sternite VIII with convex posterior margin; median lobe of aedeagus (Figs 139–141) 0.52 mm long, with very prominent crista apicalis; ventral process with numerous minute spines in baso-lateral portions; paramere nearly 0.9 mm long, with long and slender apical lobe.

♀: unknown.

Comparative notes: This species is characterized particularly by the distinctive morphology of the median lobe of the aedeagus. It is additionally distinguished from other congeners recorded from China as follows:

from *P. baicalensis* by less slender antennae with more transverse antennomeres VI–X;

from *P. longitarsis* by a completely matt forebody, significantly shorter antennae with distinctly transverse antennomeres V–X, smaller body size, a less slender pronotum with the lateral margins less distinctly sinuate in posterior half (dorsal view), shorter legs, and a much smaller aedeagus of completely different shape;

from *P. yunnanensis* by a much more slender pronotum and an aedeagus of different shape.

Based on the morphology of the aedeagus (ventral process of robust shape, with short, subapically dilated ventral process laterally furnished with minute spines, *P. spinosa* is closely allied to *P. germana* from the Himalaya. It is distinguished from this species particularly by the differently shaped aedeagus (shapes of ventral process and of the crista apicalis).

For illustrations of *P. baicalensis*, *P. longitarsis*, *P. yunnanensis*, and *P. germana* see PACE (1993, 1999), ASSING (2003a, 2007), and the present paper.

Distribution and natural history: The type locality is situated to the north of Chengxian in the western Qinling Shan, South Gansu. The holotype was sifted from debris in a meadow with *Artemisia* in a moist valley at an altitude of 1750 m.

***Parocyusa gonggaica* sp.n.**
(Figs 142–148)

Type material: Holotype ♂: "CHINA: W-Sichuan (13), Daxue Shan, Hailuogou Glacier Park, Camp 1, 2100 m, 29.36.00N, 102.03.35E, 27.–31.05.1997, M. Schülke / Holotypus ♂ *Parocyusa gonggaica* sp. n., det. V. Assing 2019" (MNB). **Paratypes:** 1 ♂, 1 ♀ [apical antennomeres of both antennae missing]: "CHINA (W-Sichuan), Daxue Shan, Hailuogou Glacier Park (Gongga Shan) Camp 1, 2100 m, 29.36N, 102.04E, 27./28./31.V.´97 Wrase" (MNB, cAss).

Etymology: The specific epithet is an adjective derived from Gongga Shan, the mountain where the type specimens were collected.

Description: Body length 3.6–4.0 mm; length of forebody 1.8–2.0 mm. Habitus as in Fig. 142. Colouration: head and pronotum dark-brown to blackish; elytra dark-yellow with the scutellar region and the postero-lateral portions somewhat infuscate to uniformly blackish-brown; abdomen blackish-brown with tergites III–V and the apex (segments VIII–X) yellowish-brown to uniformly blackish with the posterior margins of the segments paler; legs pale-yellow; antennae with the basal 3–4 antennomeres pale-yellow to yellow, apical seven antennomeres gradually darker.

Head (Fig. 143) indistinctly transverse; surface with extremely dense and barely visible punctation and with pronounced microreticulation, nearly matt. Eyes large, longer than postocular region in dorsal view. Antenna (Fig. 144) 1.2–1.3 mm long; antennomeres IV as long as broad or weakly transverse, V–X weakly transverse, X less than 1.5 times as broad as long, and XI elongate.

Pronotum (Fig. 143) 1.05–1.08 times as broad as long and approximately 1.2 times as broad as head; lateral margins straight in posterior half in dorsal view; punctation and microsculpture similar to those of head; pubescence of midline directed posteriad.

Elytra (Fig. 143) 0.90–0.95 times as long as pronotum; punctation extremely dense and fine, slightly more distinct than that of pronotum. Hind wings present. Metatarsomere I very long and slender, as long as, or longer than the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation extremely fine and dense; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI constricted in the middle, approximately as long as the combined length of antennomeres VIII–X (Fig. 144); posterior margin of sternite VIII strongly and somewhat angularly produced; median lobe of aedeagus 0.53 mm long and shaped as in Figs 145–146; paramere (Fig. 147) nearly 1.0 mm long, with very long and slender apical lobe.

♀: posterior margin of sternite VIII broadly convex; spermatheca shaped as in Fig. 148.

Comparative notes: Among the species currently known from China, *P. gonggaica* most resembles *P. yunnanensis* regarding the shape of the median lobe of the aedeagus. It is distinguished from this species by the practically matt forebody (*P. yunnanensis*: forebody shiny), more extensively yellow antennal bases, and a slightly larger aedeagus with a ventral process, a crista apicalis, and internal structures of different shapes. If the scale bar provided by Pace (1993) is correct, the length of the median lobe of *P. yunnanensis* is less than 0.5 mm. For illustrations of *P. yunnanensis* see Pace (1993).

Distribution and natural history: The type locality is situated in the Gongga Shan, West Sichuan, China, at an altitude of 2100 m. Additional data are not available.

Parocyusa dilatata sp.n.
(Figs 149–154)

Type material: Holotype ♂: "CHINA: Yunnan, Lijiang, Qizotou, stream moss, 14.IV.2003, G. de Rougemont / Holotypus ♂ *Parocyusa dilatata* sp. n., det. V. Assing 2019" (cAss). **Paratypes:** 1 ♀ [teneral]: same data as holotype (cAss); 3 ♂♂, 1 ♀: "CHINA: N-Yunnan [C2005-04], Diqing Tibet. Aut. Pref., Deqin Co., small cleft W Yangtze river, 33 km WNW Zhongdian / 27°56.75'N, 99°24.42'E, 2220–2300 m, litter, moss, gravel, dead wood sifted near water, 4.VI.2005, M. Schülke [C2005-04]" (MNB, cAss); 1♂, 1 ♀: "CHINA: N-Yunnan, Diqing Tibet. Aut. Pr. Deqin Co., gully W Jinsha Jiang river, 33 km WNW Zhongdian, 27°56.75'N, 99°24.42'E 2300 m, 4.VI.2005, A. Smetana [C151]" (cAss).

Etymology: The specific epithet (Latin, adjective) alludes to the subapically strongly dilated ventral process of the aedeagus (ventral view).

Description: Body length 3.1–3.8 mm; length of forebody 1.5–1.8 mm. Habitus as in Fig. 149. Colouration: body blackish; legs uniformly pale-yellow; antennae with basal antennomeres yellow, apically gradually becoming slightly darker, apical antennomeres pale-brown.

Head (Fig. 151) approximately as broad as long; punctation dense and extremely fine, barely visible in the microreticulation even at higher magnification (100 x). Eyes large, slightly longer than postocular region in dorsal view. Antenna 1.0–1.2 mm long; antennomeres IV and V approximately as long as broad or weakly oblong, VI–X of

gradually increasing width and increasingly oblong, X barely 1.5 times as broad as long, and XI elongate, longer than the combined length of antennomeres IX and X.

Pronotum (Fig. 151) weakly transverse and approximately 1.15 times as broad as head, broadest in anterior half; lateral margins straightly converging in posterior half in dorsal view; punctation dense and fine, but significantly more distinct than that of head; interstices with very shallow microsculpture and glossy; pubescence of midline directed posteriad.

Elytra (Fig. 151) approximately as long as pronotum; punctation extremely dense and fine, slightly more distinct than that of pronotum; interstices with shallow microsculpture and glossy. Hind wings fully developed. Metatarsomere I very long and slender, approximately as long as the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with shallow microsculpture and glossy; posterior margin of tergite VII with palisade fringe.

♂: antennomere XI constricted in the middle, nearly as long as the combined length of antennomeres VIII–X; sternite VIII with convex posterior margin; median lobe of aedeagus (Figs 152–153) 0.45–0.50 mm long, with long and broad crista apicalis; ventral process subapically strongly dilated in ventral view and with numerous minute spines in lateral portions; paramere (Fig. 154) nearly 0.80–0.85 mm long, with long and slender apical lobe.

♀: antennomere XI significantly shorter than the combined length of antennomeres VIII–X, without median constriction; posterior margin of sternite VIII broadly convex; spermatheca as in Fig. 150.

Comparative notes: Based on the similarly derived morphology of the aedeagus (ventral process subapically dilated and laterally minutely spinose), *P. dilatata* is closely allied to *P. germana*, *P. hartmanni*, and *P. spinosa*. It is distinguished from the geographically close *P. spinosa* by a less slender pronotum, a more shiny body (less pronounced microsculpture), less fine and less dense punctation of the whole body, paler antennae, and by the morphology of the aedeagus (shapes of ventral process, crista apicalis, and internal structures). Regarding the shape of the ventral process of the aedeagus, *P. dilatata* is most similar to *P. hartmanni* (Nepal), from which it differs by paler and significantly antennae, smaller eyes, and a smaller aedeagus with a more strongly dilated ventral process.

Distribution and natural history: This species is currently known from two localities in West Yunnan, China, where it was collected from stream moss and moist litter near water. The altitude of one of the localities is between 2220 and 2300 m. Most of the type specimens are more or less distinctly teneral.

Parocyusa yakouensis (PACE, 2010), comb.n.

Ocyusa yakouensis PACE, 2010: 34.

Comment: PACE (2010) described *O. yakouensis* based on a male holotype and three paratypes from "Taiwan, Kahosiung Hsien, Crk. 2 km E Yakou". Based on a photo of the

habitus made available to me by Adriano Zanetti and on the illustrations of the habitus and the genitalia provided in the original description, this species clearly belongs to *Parocyusa*. The sexual characters are illustrated by PACE (2010).

Parocyusa sp.

Material examined: CHINA: 2 ♀♀, Yunnan, Lijiang, Yushuishai, stream moss, 14.IV.2003, leg. Rougemont (cAss).

Comment: The above specimens are similar to *P. dilatata*, but distinguished by longer elytra, finer punctation, and partly yellowish elytra. Since they are not in complete agreement with the (few) characters indicated in the original description of *P. yunnanensis* either, they may represent an undescribed species.

Parocyusa sp.

Material examined: U.S.A.: 1 ♀, Washington, Olympic Peninsula, 30 km SE Forks, Clearwater road to 47°42'04"N, 123°59'09"W, 360 m, mixed and coniferous forests, car-net, 7.VII.2015, leg. Schülke (MNB).

Comment: The above specimen is similar to *P. longitarsis*, but distinguished by the pronotal pubescence pattern (pubescence directed posteriad along midline), a smaller head (in relation to the pronotum), slightly shorter elytra, and a smaller and shorter spermatheca with a smaller apical cuticular invagination. It differs from *P. fuliginosa* by darker colouration (especially of the legs and antennae), larger size, longer elytra, longer antennae with more oblong antennomeres IV-X, and the shape of the spermatheca.

Species excluded from *Parocyusa*

An examination of the following three species previously assigned to *Tetralaucopora* (SCHÜLKE & SMETANA 2015) revealed that they do not belong to *Parocyusa*, but to other genera of Oxypodini.

"*Ocyusa*" *fuscobrunnea* (CAMERON, 1939), comb.n.

(Figs 155–159)

Chilopora (*Tetralaucopora*) *fuscobrunnea* CAMERON, 1939: 570 f.
Parocyusa (*Tetralaucopora*) *fuscobrunnea*: SMETANA (2004).
Tetralaucopora fuscobrunnea: ASSING & SCHÜLKE (2007).
Tetralaucopora fuscobrunnea: SCHÜLKE & SMETANA (2015).

Type material examined: Syntype ♂ [teneral]: "Ghum district, v–vi.31, Dr. Cameron / *C. fuscobrunnea* Cam. Type / *fuscobrunnea* Cam. / M. Cameron. Bequest. B.M. 1955-147. / Syntype / "*Parocyusa*" *fuscobrunnea* (Cameron), det. V. Assing 2019" (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "Ghum district" (CAMERON 1939). The sole syntype in the Cameron collection is a teneral male. Based on external and the male sexual characters, this species clearly does not belong to *Parocyusa*, but to an oxypodine genus of unknown identity (Oxypodina incertae sedis). It differs from *Parocyusa* species by a shorter and unconstricted male

antennomere XI, a somewhat bell-shaped pronotum, conspicuously dense uniform punctation of the abdomen (somewhat resembling that of *Trichoglossina* PACE, 1987), shallow anterior impressions of tergites III–VI, an aedeagus with a conspicuous additional process at the base of the ventral process, and parameres of completely different morphology. This species is temporarily placed in *Ocyusa*, an unrevised and undoubtedly polyphyletic genus already including various non-congeneric species, although it is clearly not congeneric with the type species, *O. maura* (ERICHSON, 1837). The external and male sexual characters are illustrated in Figs 155–159.

"*Cousya*" *quadrisulcata* (BERNHAUER, 1935)

(Fig. 163)

Ocyusa (*Cousya*) *quadrisulcata* BERNHAUER, 1935: 87 f.
Tetralaucopora (*Chiloporata*) *nepalensis* PACE, 2006: 364; **syn.n.**

Type material examined: *T. nepalensis*: **Holotype** ♂: "NEPAL, Prov. Karnali, Distr. Jumla, Jumla, Tila River, 2300 m NN, leg. M. Hartmann, 29.IV.1995 / Holotypus *Tetralaucopora nepalensis* mihi, det. R. Pace 2003 / *Tetralaucopora nepalensis* n. sp., det. R. Pace 2003 / '*Cousya*' *quadrisulcata* (Bernhauer), det. V. Assing 2019" (NME). **Paratype** ♂ [head and pronotum missing]: same data as holotype (NME).

Comment: The original description of *Ocyusa quadrisulcata* is based on an unspecified number of syntypes from five localities in the Karakoram range (BERNHAUER 1935).

Additional material examined: NEPAL: 2 ♀♀ [identified by R. Pace as *C. quadrisulcata*], Karnali, Jumla distr., N Khari Lagna, 29°22'N, 82°09'E, 3280 m, stream bank, 21.VI.1999, leg. Hartmann (NME).

Tetralaucopora nepalensis was described based on a male holotype from "Nepal, Prov. Karnali, Distr. Jumla, Tatapani, Tila River, 2200 m" and two paratypes (a male and a female) from "Nepal, Prov. Karnali, Distr. Jumla, Jumla N, 2300–2600 m" (PACE 2006). Evidently, something went wrong in the citation of the type labels, as is revealed by a comparison of the actual type labels with the data in the original description. An examination of the type material of *T. nepalensis* revealed that it is conspecific with the additional material of *C. quadrisulcata*, which had been reported, identified, and compared with type material in the Bernhauer collection by PACE (2015). The generic assignment of *C. quadrisulcata* is erroneous. Most likely, this species belongs to an undescribed genus. The somewhat incomplete holotype of *T. nepalensis* is illustrated in Fig. 163.

Oxypoda sinonigra (PACE, 2017), comb.n.

Tetralaucopora sinonigra PACE, 2016: 316 f.; nomen nudum.
Tetralaucopora sinonigra PACE, 2017: 301.

Type material examined: Holotype ♂: "CHINA: Yunnan [CH07-01], Dali Bai Auton. Pref., Diancang Shan W Dali, 25°41'09"N, 100°06'32"E, 3000–3200 m, cleft in mixed forest, litter, debris sifted, 27.V.2007, A. Pütz / Holotypus *Tetralaucopora sinonigra* mihi, det. R. Pace 2016 / *Tetralaucopora sinonigra* n. sp., det. R. Pace 2016 / '*Oxypoda*' *sinonigra* (Pace), det. V. Assing 2019" (cPüt). **Paratypes:** 3 exs.: "CHINA: Yunnan [CH07-02], Dali Bai Auton. Pref., Diancang Shan W Dali, 25°41'20"N, 100°06'12"E, 3160 m, small creek valley, litter and debris sifted, 27.V.2007, leg. A. Pütz" (cPüt).

Comment: PACE (2016) intended to describe *T. sinonigra* based on a female holotype and four female paratypes from "China: Yunnan ..., Dali Bai Auton. Pref. Diancang Shan W Dali", but failed to indicate an unambiguous type depository, thus rendering

T. sinonigra PACE, 2016 a nomen nudum. The name was subsequently made available by PACE (2017). It can be inferred from the fact that PACE (2016) also illustrated the aedeagus that the holotype is in fact a male.

Based on external and the sexual characters, the generic assignment of *T. sinonigra* is undoubtedly erroneous. The species is excluded from *Parocyusa* and tentatively assigned to *Oxypoda* MANNERHEIM, 1830.

Genus *Tectusa* BERNHAUER, 1899

Tectusa BERNHAUER, 1899: 18; type species: *Leptusa difficilis* EPPELSHEIM, 1880.
Leptusina BERNHAUER, 1900: 198; type species: *Ocyusa bosnica* BERNHAUER, 1900.

Diagnosis: Species of mostly small size (usually approximately 1.8–3.5 mm) and slender habitus. Body moderately densely and finely punctate and with moderately dense and fine pubescence.

Head of orbicular shape, approximately as broad as long or weakly transverse. Legs and maxillary palpi moderately slender. Head posteriorly with carina, but without posterior constriction ("neck"). Antennae moderately incrassate, without sexual dimorphism; antennomere XI without constriction (exception: *T. taurica*). Labrum (Figs 244, 247) transverse. Labium (Figs 246, 248); ligula short and apically incised; labial palpi three-jointed and slender. Mandibles without evident modifications. Maxilla as in Figs 245, 249.

Pronotum moderately to distinctly transverse; pubescence of midline directed either posteriad along its entire length or anteriad in anterior portion and posteriad in posterior portion.

Elytra short, without distinct humeral angles. Hind wings completely reduced. Ventral aspect of thorax without distinctive characters. Metatarsomere I slender and elongate, usually longer than the combined length of metatarsomeres II and III.

Abdomen moderately slender; tergites III–V with, tergite IV without anterior impressions.

♂: posterior margin of sternite VIII more or less distinctly produced in the middle; median lobe of aedeagus with weakly pronounced dorso-lateral lamellae and with apically usually narrow ventral process; paramere of moderate length, basally or medially dilated, without acute process at base.

♀: posterior margin of sternite VIII less produced than in male; spermatheca of the usual oxypodine condition, of similar general shape as in species of *Oxypoda*.

Systematics and taxonomy: As a result of numerous transfers to *Parocyusa* (see the preceding sections) or *Oxypoda* (see the final section), only 30 of the species previously assigned to *Tectusa* remain in the genus, some of them only tentatively. Eighteen of these species were examined, fourteen of them named by the author and the remainder treated in ASSING (2004a, 2016a, 2018a), ASSING & VOGEL (2019), or listed below (see also the checklist). Material of the remaining 13 species has been out on loan to a colleague for many years and is currently not accessible for study (see introduction). For this reason, nomenclatural changes are kept to a minimum.

Tectusa comprises several lineages, two of them (referred to as the *T. killinica* and *T. affinis* species groups below) rather speciose, distributed in the Balkans, and possibly

representing distinct genera. The *T. killinica* group currently includes nine, the *T. affinis* group eight species. Unfortunately, the type material of the type species of *Tectusa* (*T. difficilis*) and *Leptusina* (*T. bosnica*) was not accessible (see Introduction), but based on the descriptions of the respective genera (BERNHAUER 1899, 1900), one of the lineages may belong to *Tectusa* and the other to *Leptusina*. If an examination of the type material of the type species should confirm this hypothesis, *Leptusina* may have to be revalidated. Five species from Greece and Bulgaria are attributed to the *T. meschniggi* group: *T. meschniggi*, *T. vrontousensis*, *T. recta*, *T. pirinica*, and *T. ferdinandicoburgi*. They are characterized by a blackish forebody, moderately small eyes, a practically matt head and pronotum with pronounced microsculpture, a distinctly transverse pronotum with a pubescence of the midline directed posteriad and that of the lateral portions distinctly transverse, an aedeagus with an apically narrow ventral process (lateral view), and a slender apical lobe of the paramere. The three *Tectusa* species known from Crete clearly represent a monophylum distinguished from other *Tectusa* species by a posteriorly strongly tapering pronotum and other characters.

Species from regions other than the Balkans probably represent separate lineages. This particularly applies to *T. estrelae*, whose isolated distribution (Portugal) would suggest that it represents a distinct genus. However, a DNA-based approach would be required to confirm this. Similarly, the phylogenetic affiliations of *Tectusa caucasica* and *T. winkleri*, which were described from regions outside the confirmed range of *Tectusa* (and *Leptusina*), require revision.

Identification: A reliable identification of most species is possible only based on an examination of the median lobe of the aedeagus, in some cases also based on the shape of the spermatheca. For this reason and because it was not possible to study several previously described species, a key to species would be of little use.

Diversity, **distribution and natural History:** At present, *Tectusa* includes 41 described species (see catalogue), but numerous additional species undoubtedly remain to be discovered, particularly in the southern Balkans. This is suggested not only by the considerable number of unnamed species (see below), but also by the fact that *Tectusa* species are found only rarely and only under suitable conditions in a short time window in spring. The confirmed distribution is confined to the southern West Palaearctic region. The vast majority of species is distributed in the Balkans and adjacent regions, with eleven species known from the Peloponnisos alone, one in Portugal, two in Ukraine and Georgia, and one in Turkey.

All the species are more or less locally endemic. However, at least two species are not confined to individual mountains or mountain ranges (see the sections on *T. killinica* and *T. latilobata*). *Tectusa* species are generally found at high altitudes, usually at the margins of snowfields.

Preliminary catalogue of the species of *Tectusa*

The species preceded by an asterisk (*) have not been revised. Their generic assignment is based on original descriptions and/or previous assignments and consequently tentative. This particularly applies to species (*T. caucasica*, *T. winkleri*) described from regions outside the confirmed range of *Tectusa*.

For the examined species, the pronotal pubescence pattern is indicated behind the species name. Type II: setae directed posteriad along entire length or at least along posterior four-fifths of midline. Type III: setae directed anteriad in (approximately) anterior half and posteriad in (approximately) posterior half of pronotal midline.

Species	Distribution
acrilobata **sp.n.** (II)	Greece: Pelopónnisos: Erimanthos Oros
affinis (Eppelsheim, 1884) (II)	Greece: Pelopónnisos: Panahaiko Oros
**albanica* (Bernhauer, 1936)	South Albania: Llogora pass
apanoica **sp.n.** (III)	Greece: Pelopónnisos: Menalo Oros
**bosnica* (Bernhauer, 1900)	Bosnia-Herzegovina: Bjelasnica Planina
callicera Assing, 2002 (II)	Greece: Crete: Lefka Ori
**caucasica* (Bernhauer, 1902)	Georgia: Likhi Range ("Suram")
chelmosica **sp.n.** (III)	Greece: Pelopónnisos: Aroania Oros
**cribricollis* (Bernhauer, 1940)	Bosnia-Herzegovina: Orjen
diktiana Assing, 2013 (II)	Greece: Crete: Dikti Oros
**difficilis* (Eppelsheim, 1880)	Bosnia-Herzegovina: Veles Planina
**difformis* (Roubal, 1925)	Bosnia-Herzegovina, Croatia
estrelae Assing, 2003 (II)	Portugal: Serra da Estrela
ferdinandicoburgi (Rambousek, 1909) (II)	Bulgaria: Rila Planina
fimbriata **sp.n.** (II)	Greece: Panahaiko Oros
killinica Assing & Vogel, 2019 (III) = *kuehnelti* (Scheerpeltz, 1963) (preocc.)	Greece: North Pelopónnisos: Panahaiko, Aroania, and Killini ranges
**kuehnelti* (Scheerpeltz, 1962)	Greece: Pelopónnisos: Killini Oros
latilobata **sp.n.** (III)	Greece: Giona, Iti, and Parnassos ranges
leonhardi (Bernhauer, 1912) (II)	Greece: Kefallinia
longiuter Assing & Wunderle, 2001 (II)	Greece: Evritania: Kaliakoúda
menaloica **sp.n.** (III)	Greece: Pelopónnisos: Menalo Oros
meschniggi (Bernhauer, 1928) (II)	Greece: Olympos Oros
**paganettihummleri* (Bernhauer, 1940)	South Serbia: Ljuboten
parnonica **sp.n.** (III)	Greece: Pelopónnisos: Parnon Oros
pauli **sp.n.** (III)	Greece: Pelopónnisos: Aroania
pirinica Assing, 2018 (II)	Bulgaria: Pirin Planina
rastrifera Assing & Wunderle, 2001 (II)	Greece: Parnassos, Giona Oros
recta Assing, 2006 (II)	Greece: N-Pindos: Oros Arénes
regisborisi (Scheerpeltz, 1937) (II)	Bulgaria: Stara Planina
**roubali* (Roubal, 1940)	Kosovo: Šar Planina
taurica Assing, 2004 (II)	South Turkey: Kahramanmaraş
taygetana **sp.n.** (III)	Greece: Pelopónnisos: Taygetos Oros
thriptica Assing, 2013 (II)	Greece: Crete: Thripti Oros
timfristosensis Assing & Wunderle, 2001 (III)	Greece: Evritania: Timfristos
uhligi (Pace, 1987) (II)	Bulgaria: Stara Planina
vardousiensis Assing & Wunderle, 2001 (III)	Greece: Fokis: Ori Vardousia
viduus Assing & Wunderle, 2001 (III)	Greece: Evritania: Timfristos
vodiasa **sp.n.** (III)	Greece: Pelopónnisos: Panahaiko Oros
vrontousensis Assing & Wunderle, 2001 (II)	Greece: Séres: Vrontous Oros
**winkleri* (Bernhauer, 1940)	Ukraine: Krym peninsula

The species of *Tectusa*

In this section, only previously unrevised and newly described species are treated in detail. For descriptions and illustrations of other representatives of the genus see the respective original descriptions.

Tectusa killinica group

The species of this group share the following characters: body of small size, slender habitus, and often dark colouration; eyes small, composed of approximately 15 ommatidia at most; pronotum small in relation to head and with pubescence of type III; preapical antennomeres strongly transverse; ventral process of aedeagus apically narrow and acute in lateral view; apical lobe of paramere broadest at basal third or in the middle. Aside from the six species treated below, the following species are assigned to this group: *T. vardousiensis*; *T. viduus*; *T. timfristosensis*. All the species currently in this group are distributed in Greece (Fig. 254).

Tectusa killinica ASSING & VOGEL, 2019
(Figs 165–176, 188–189, 254)

Leptusa (*Micropisalia*) *kuehnelti* SCHEERPELTZ, 1963: 441 ff.; preoccupied.
Meotica kuhnelti [sic]: PACE (1980).
Meotica kuehnelti: SMETANA (2004).
Meotica kuehnelti: SCHÜLKE & SMETANA (2015).
Tectusa killinica ASSING & VOGEL, 2019; replacement name.

Type material examined: See ASSING & VOGEL (2019).

Additional Material examined: GREECE: PELOPÓNNISOS: Panahaiko: 2 ♂♂, 2 ♀♀, above Ano Kastritsi, 38°14'58"N, 21°51'32"E, 1500 m, 28.III.1997, leg. Assing (cAss). **Aroania:** 35 ♂♂, 36 ♀♀, Plateau near Helmos, 38°00'45"N, 22°11'33"E, 1700 m, sifted under snow, 30.III.1997, leg. Assing, Zerche (cAss, SDEI); 3 ♂♂, 6 ♀♀, 10 km E Kalavrita, 38°01'02N, 22°10'21E, 1450 m, 29.III.1997, leg. Assing, Zerche (cAss, SDEI); 4 ♂♂, 6 ♀♀, 25 exs., Xerokambos E Kalávrita, 38°00'36"N, 22°11'27"E, 1650 m, fir forest, sifted near snow, 12.IV.1998, leg. Zerche (SDEI); 1 ♀, road Kalávrita–Xerokambos, 38°01'13"N, 22°10'35"E, 1450 m, fir forest, sifted near snow, 12.IV.1998, leg. Zerche (SDEI); 2 ♂♂, 1 ♀, road Kalávrita–Xerokambos, 38°01'17"N, 22°10'43"E, 1550 m, fir forest, sifted near snow, 23.IV.1999, leg. Zerche (SDEI); 1 ♂, 13 exs., E Kalávrita, Xerokambos, 38°00'39"N, 22°11'31"E, 1590 m, fir forest, sifted near snow, 12.V.1999, leg. Zerche & Behne (SDEI). **Killini:** 2 ♂♂, 1 ♀, S Trikala, 37°56'N, 22°24'E, 2060–2080 m, snow field, 28.IV.1998, leg. Zerche (SDEI, cAss); 2 ♂♂, 1 ♀, SW Trikala, 37°57'50"N, 22°23'25"E, 1570 m, fir forest, sifted, 3.IV.2016, leg. Schülke (MNB, cAss).

Comment: The type locality of *Leptusa kuehnelti*, a secondary homonym subsequently replaced with *Tectusa killinica*, is situated in the same mountain as that of *Tectusa kuehnelti*. The type material of the latter has been out on loan to a colleague for more than two decades and was not accessible for examination. Therefore, the possibility that *T. killinica* represents a junior synonym of *T. kuehnelti* cannot be ruled out with certainty.

Redescription: Body length 2.5–2.8 mm; length of forebody 1.0–1.1 mm. Habitus as in Figs 165–166. Colouration: forebody reddish-brown to blackish; abdomen black with the apex (posterior margin of segment VII and segments VIII–X) yellowish; legs yellow to yellowish-brown; antennae and maxillary palpi reddish-yellow to reddish. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody rather long and suberect.

Head (Figs 167–168) weakly oblong, of suborbicular shape; punctation moderately dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes small, composed of approximately 15 ommatidia with pigmentation, approximately one-third as long as postocular region in dorsal view. Antenna short, 0.6–0.7 mm long, and distinctly incrassate; antennomeres IV distinctly transverse, V–X of gradually increasing width and approximately twice as broad as long, and XI as long as the combined length of IX and X, or nearly so.

Pronotum (Figs 167–168) 1.08–1.12 times as broad as long and 1.13–1.20 times as broad as head, broadest anterior to middle, more strongly narrowed posteriorly than anteriorly, weakly convex in cross-section; lateral margins nearly straight in posterior half; punctation and microsculpture similar to those of head; pubescence of midline directed anteriad in anterior half and posteriad in posterior half.

Elytra (Figs 167–168) short, approximately 0.55 times as long as pronotum; punctation slightly less dense and much more distinct than that of pronotum; microsculpture composed of coarser meshes than that of pronotum. Hind wings completely reduced. Metatarsomere I as long as the combined length of metatarsomeres II and III. Abdomen: tergites III–V with distinct, tergite VI with indistinct anterior impressions; punctation fine, but noticeable; interstices with microsculpture composed of a mix of short and long transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus approximately 0.35 mm long and shaped as in Figs 169–170, 172–176; ventral process acute apically both in lateral and in ventral view; paramere (Fig. 171) approximately 0.55 mm long; apical lobe elongate, flattened, broadest at basal third, and apically very acute.

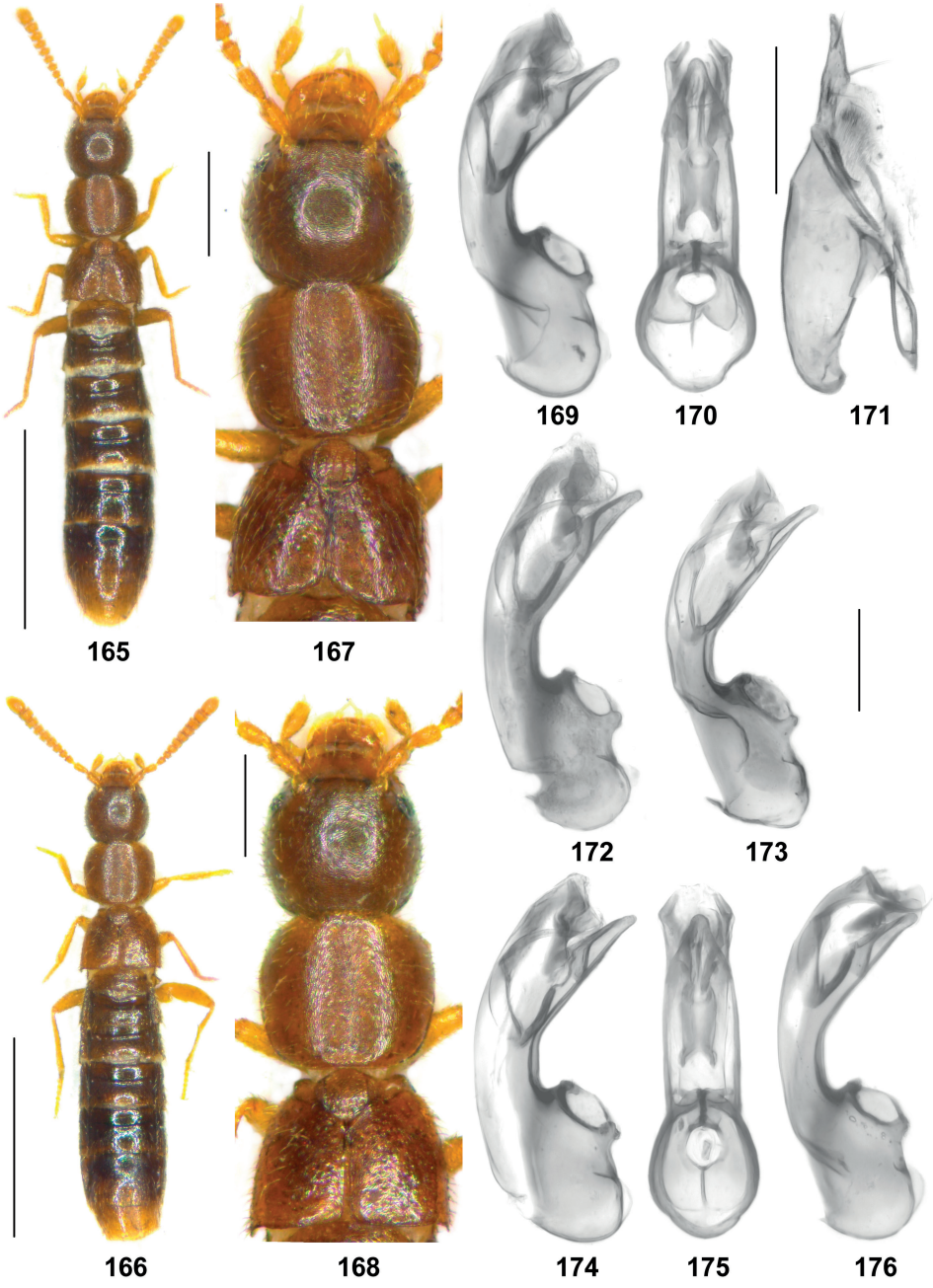
♀: spermatheca as in Figs 188–189.

Comparative notes: Though similar in general appearance, this species differs from the sympatric *T. vodiasa* in a number of characters, particularly smaller body size, shorter antennae with more transverse antennomeres V–X, a relatively longer antennomere XI, a slightly more transverse and broader pronotum, more glossy elytra (especially in relation to head and pronotum), a less distinct anterior impression on the abdominal tergite VI, a smoothly convex posterior margin of tergite VIII, and the primary sexual characters.

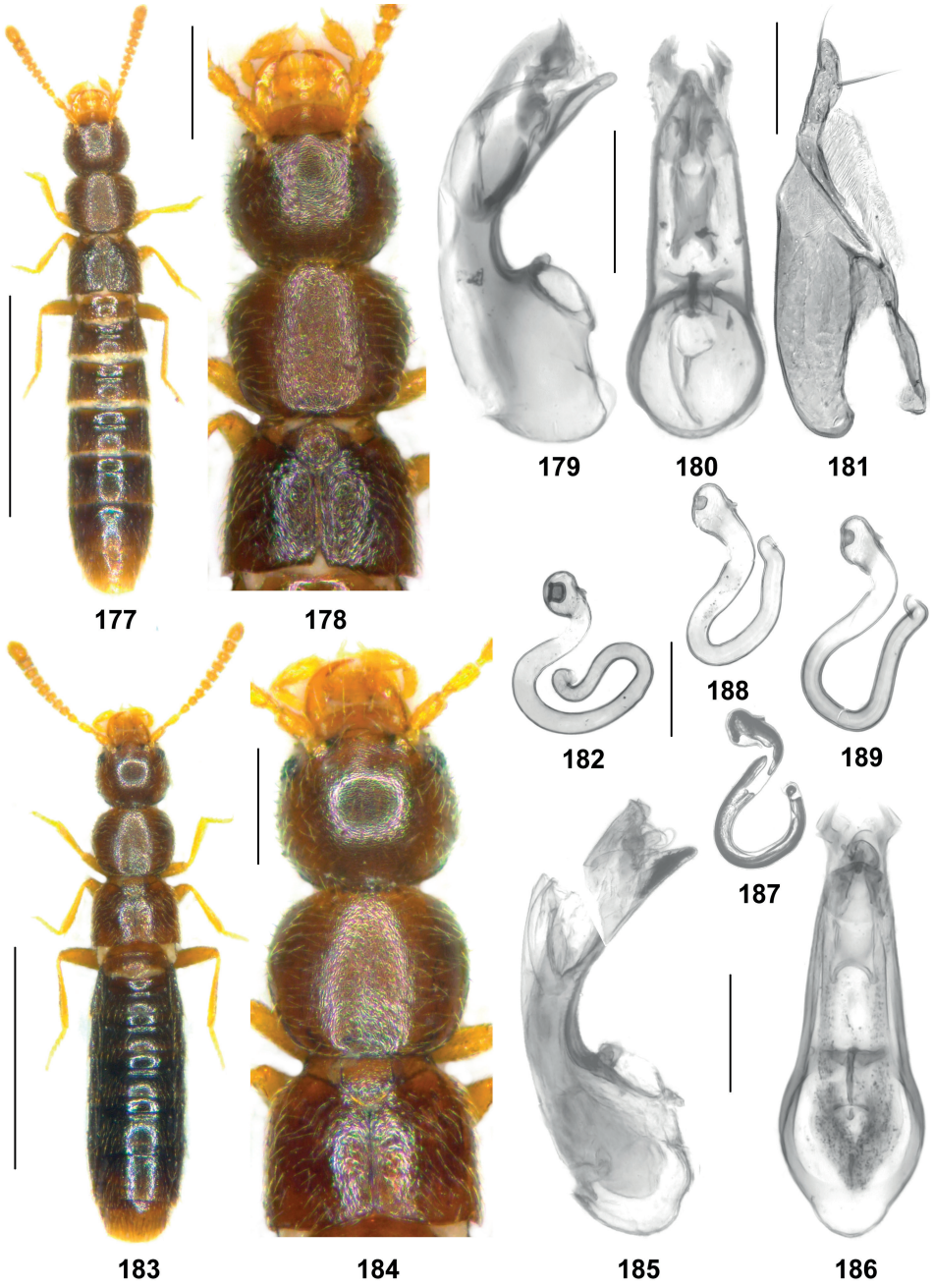
Distribution and natural history: The distribution of this species ranges from Oros Panahaiko across Aroania eastwards to the Killini range, North Pelopónnisos (Fig. 254). The specimens were collected by sifting litter and grass roots, mostly in fir forests and usually near and under snow, at altitudes of 1450–2080 m.

Tectusa latilobata sp.n.
(Figs 177–182, 254)

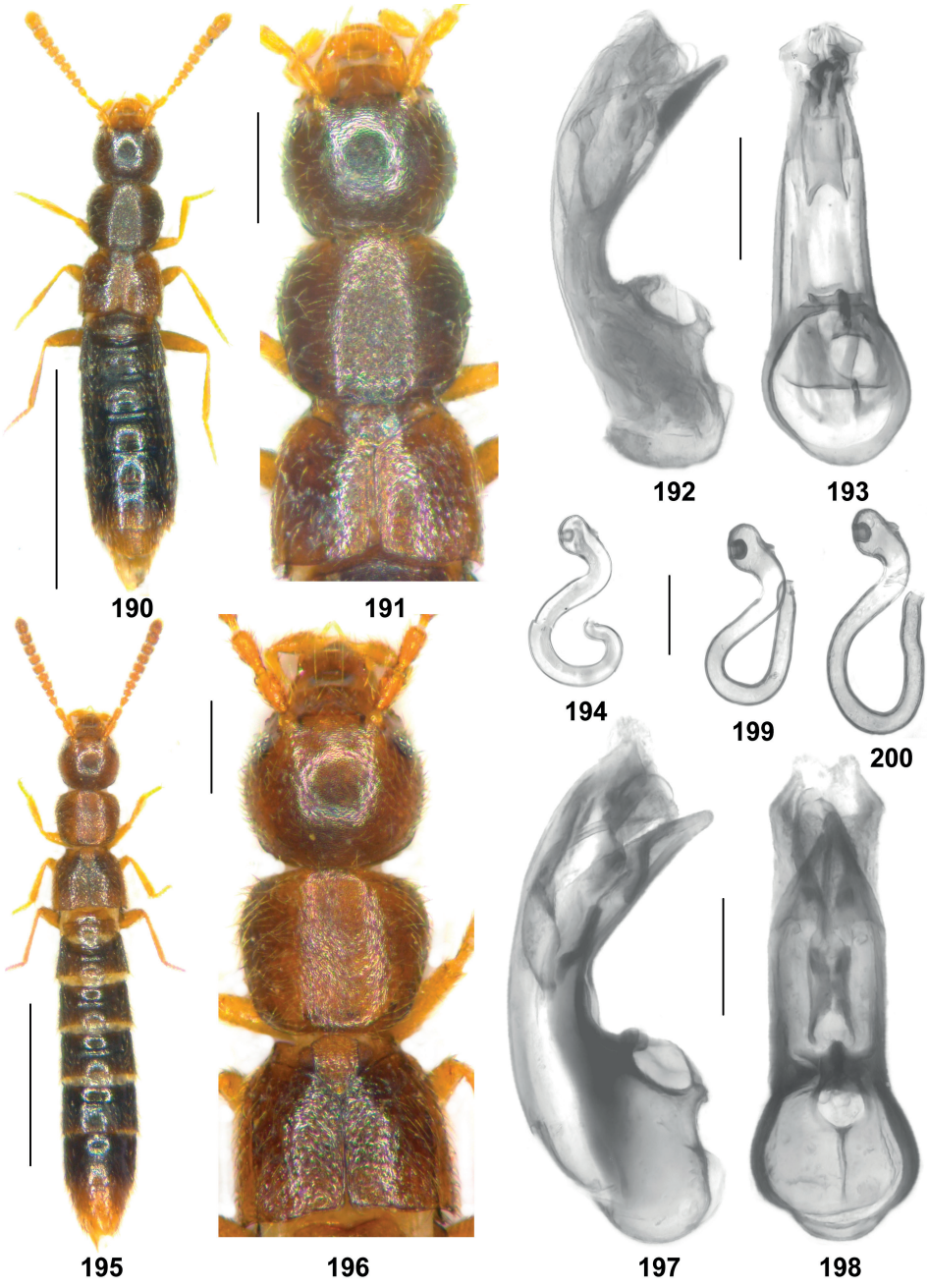
Type material: Holotype ♂: "GR. Fokis, No. 15, 45 km SSW Lamía, Oros Giona, 1700 m, 38°39'36N, 22°19'32E, 17.IV.2000, V. Assing / Holotypus ♂ *Tectusa latilobata* sp. n., det. V. Assing 2019" (cAss). **Paratypes:** 1 ♂, 2 ♀♀: same data as holotype (cAss); 3 ♂♂, 2 ♀♀: same data, but leg Wunderle (cWun, cAss); 1 ♂, 1 ♀: "GR. Fthiotis, No. 9, Parnassos Oros, 1700 m, *Abies* wood with snow, 38°34'12N, 22°34'24E, 15.IV.2000, V. Assing" (cAss); 2 ♂♂, 1 ♀: same data, but leg. Wunderle (cWun, cAss); 1 ♀: "GR. Fthiotis, No. 7, Parnassos Oros, 1760 m, ski resort, *Abies* wood, 38°33'17N, 22°34'35E, 15.IV.2000, V.



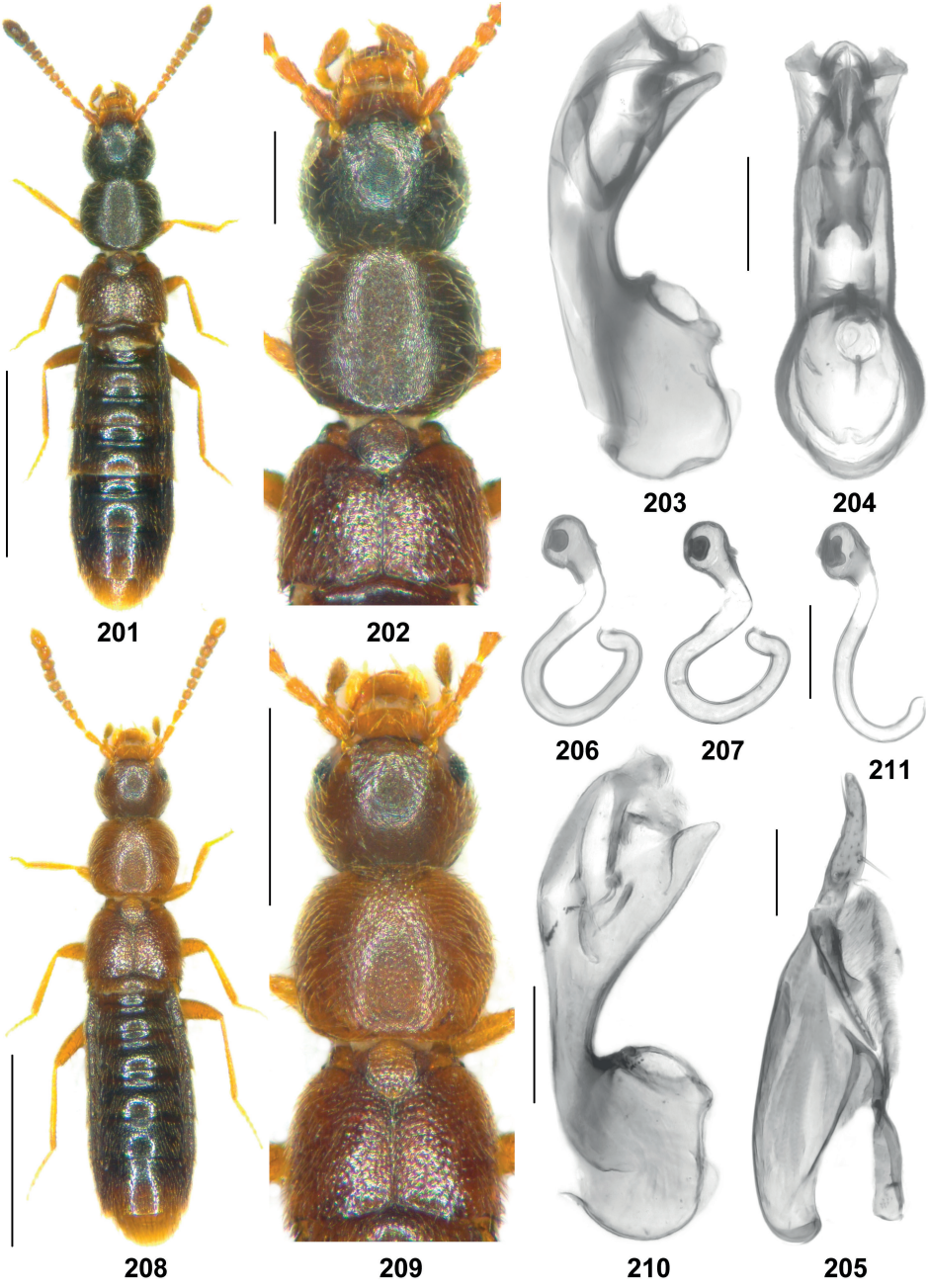
Figs 165–176: *Tectusa killinica* from Aroania (165, 167, 169–171), Killini (172–173), and Panahaiko (166, 168, 174–176): 165–166) habitus; 167–168) forebody; 169–170, 172–176) median lobe of aedeagus in lateral and in ventral view; 171) paramere. Scale bars: 165–166: 1.0 mm; 167–168, 171: 0.2 mm; 169–170, 172–176: 0.1 mm.



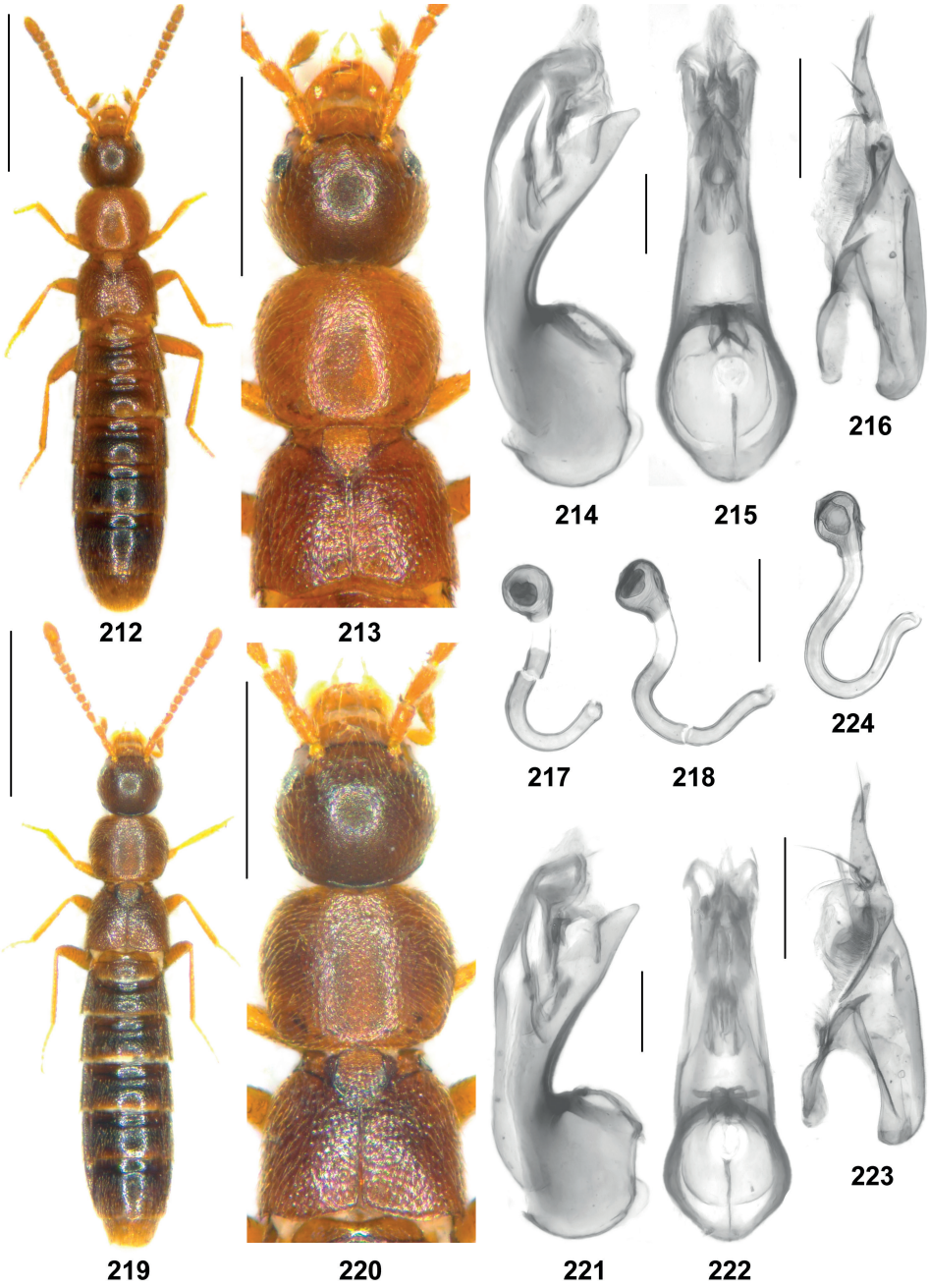
Figs 177–189: *Tectusa latilobata* (177–182), *T. pauli* (183–187), and T. *killinica* (188–189) from Aroania (188) and Panahaiko (189): 177, 183) habitus; 178, 184) forebody; 179–180, 185–186) median lobe of aedeagus in lateral and in ventral view; 181) paramere; 182, 187–189) spermatheca. Scale bars: 177, 183: 1.0 mm; 178, 184: 0.2 mm; 179–182, 185–189: 0.1 mm.



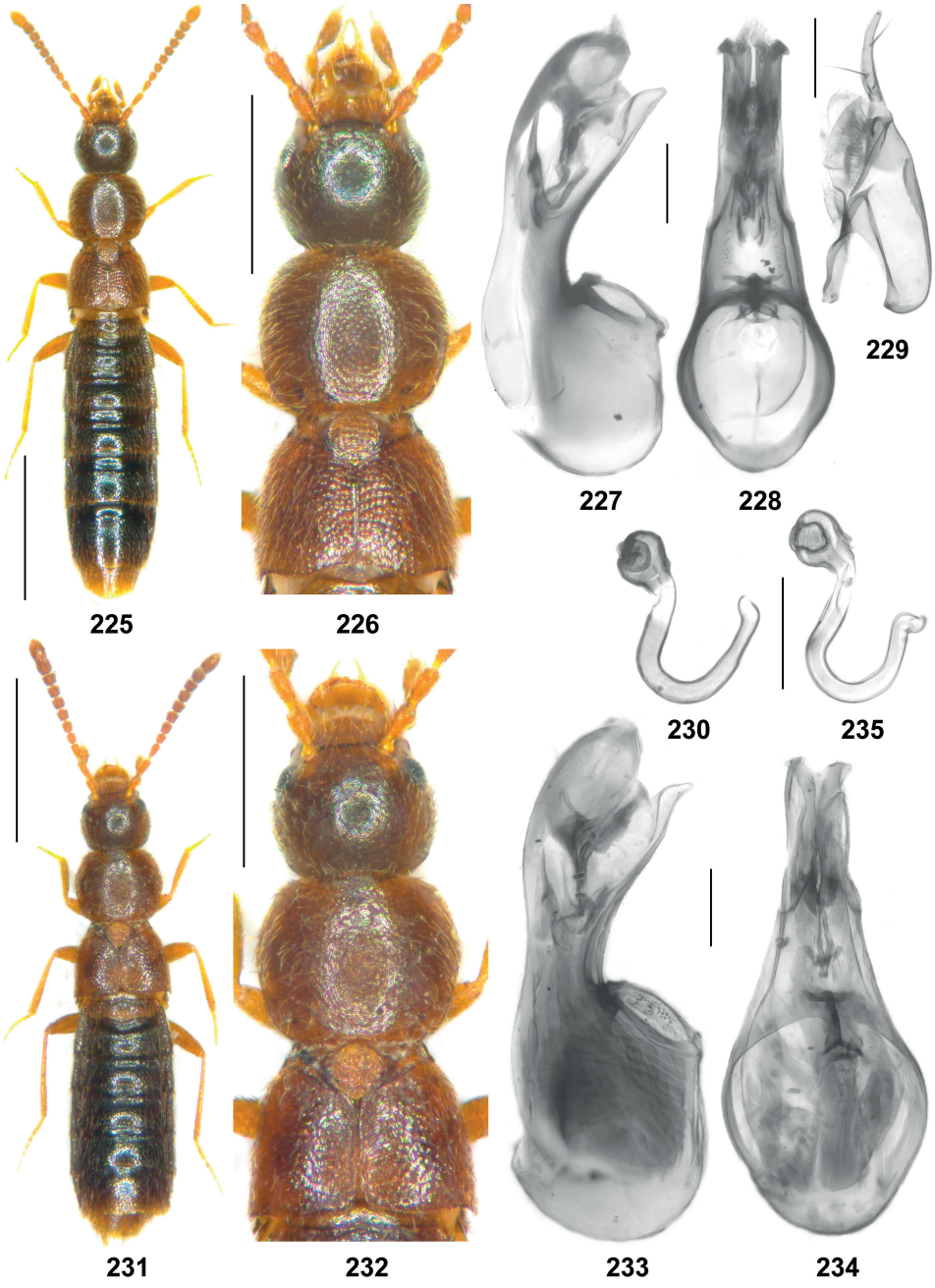
Figs 190–200: *Tectusa apanoica* (190–194) and *T. vodiasa* (195–200): 190, 195) habitus; 191, 196) forebody; 192–193, 197–198) median lobe of aedeagus in lateral and in ventral view; 194, 199–200) spermatheca. Scale bars: 190, 195: 1.0 mm; 191, 196: 0.2 mm; 192–194, 197–200: 0.1 mm.



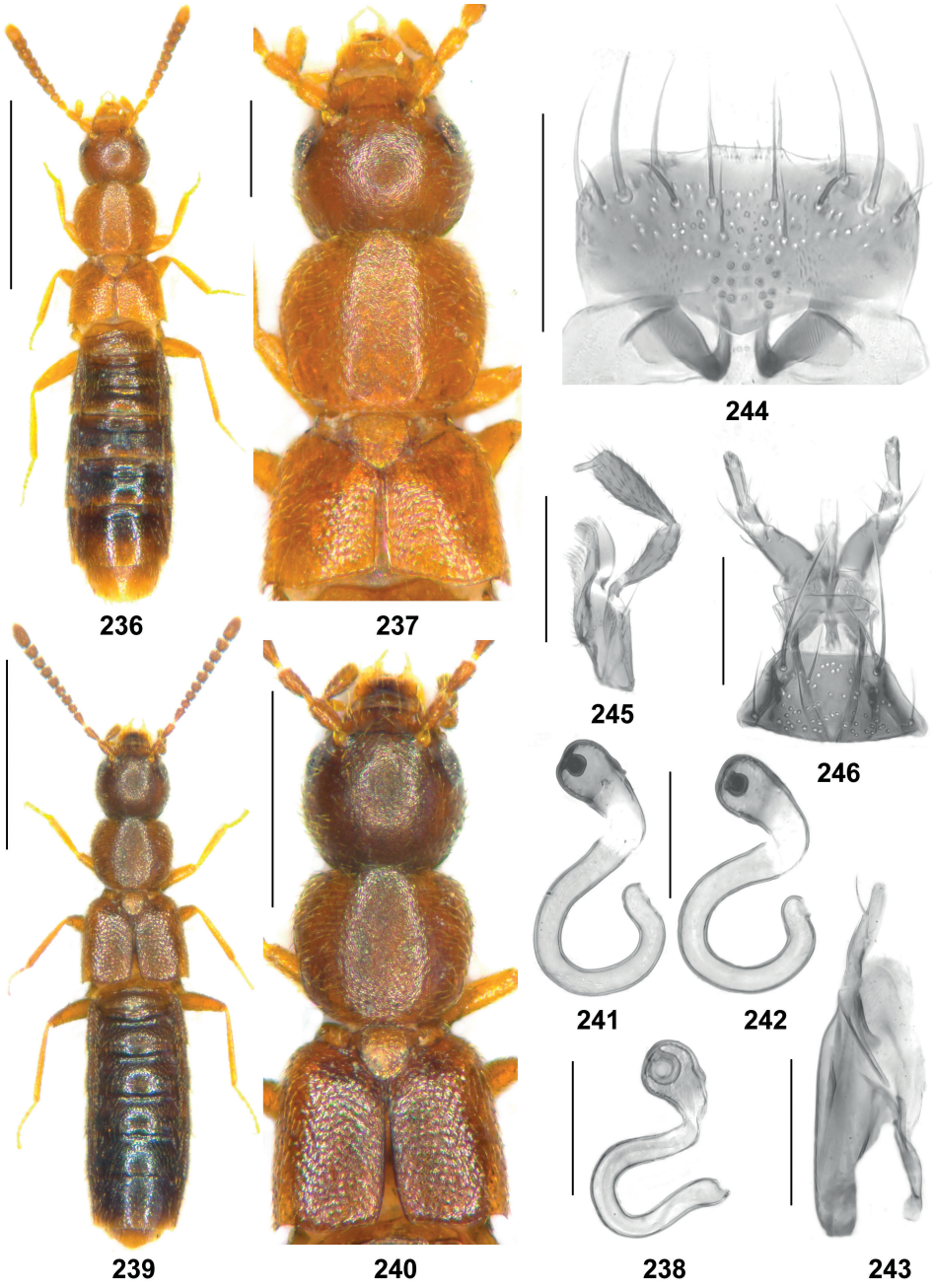
Figs 201–211: *Tectusa parnonica* (201–207) and *T. affinis* (208–211): 201, 208) habitus; 202, 209) forebody; 203–204, 210) median lobe of aedeagus in lateral and in ventral view; 205) paramere; 206–207, 211) spermatheca. Scale bars: 201, 208: 1.0 mm; 209: 0.5 mm; 202: 0.2 mm; 203–207, 210–211: 0.1 mm.



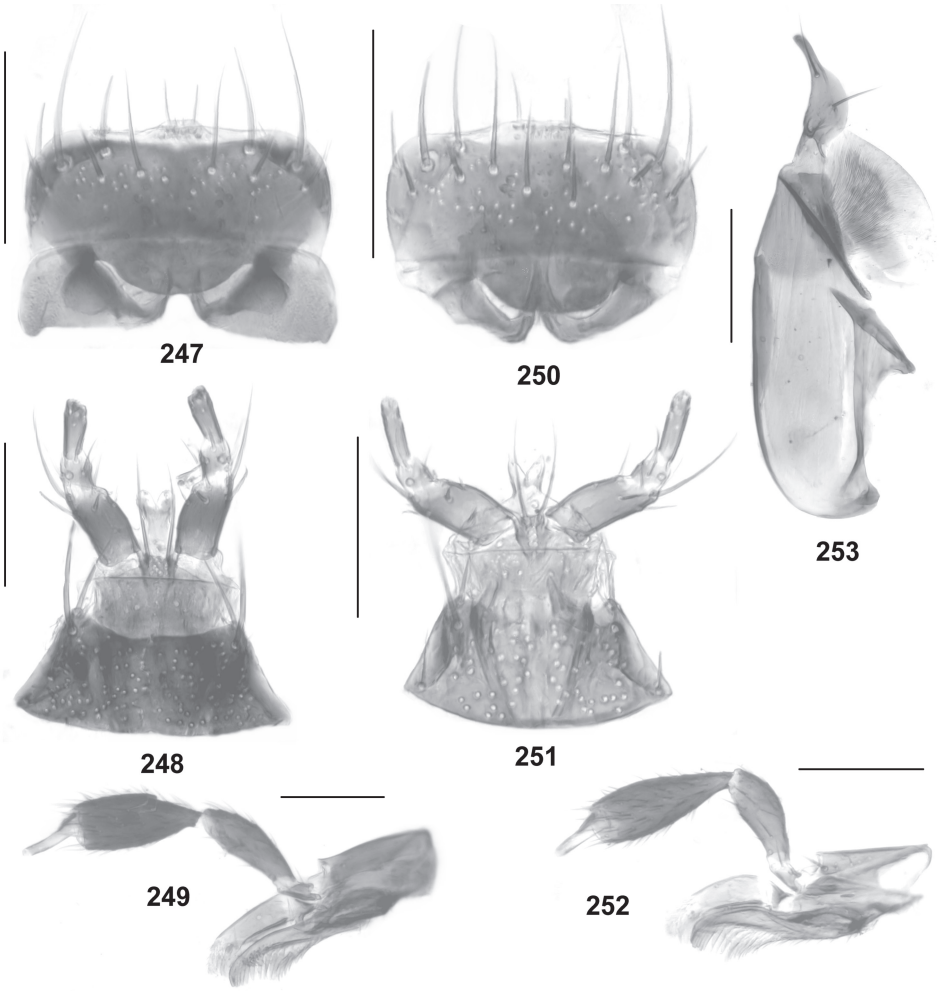
Figs 212–224: *Tectusa acrilobata* (212–218) and *T. chelmosica* (219–224): 212, 219) habitus; 213, 220) forebody; 214–215, 221–222) median lobe of aedeagus in lateral and in ventral view; 216, 223) paramere; 217–218, 224) spermatheca. Scale bars: 212, 219: 1.0 mm; 213, 220: 0.5 mm; 216, 223: 0.2 mm; 214–215, 217–218, 221–222, 224: 0.1 mm.



Figs 225–235: *Tectusa menaloica* (225–230) and *T. taygetana* (231–235): 225, 231) habitus; 226, 232) forebody; 227–228, 233–234) median lobe of aedeagus in lateral and in ventral view; 229) paramere; 230, 235) spermatheca. Scale bars: 225, 231: 1.0 mm; 226, 232: 0.5 mm; 229: 0.2 mm; 227–228, 230, 233–235: 0.1 mm.



Figs 236–246: *Tectusa leonhardi*, syntype (236–238), *T. fimbriata* (239–242), *T. apanoica* (243), and *T. rastrifera* (244–246): 236, 239) habitus; 237, 240) forebody; 238, 241–242) spermatheca; 243) paramere; 244) labrum; 245) maxilla; 246) labium. Scale bars: 236, 239: 1.0 mm; 240: 0.5 mm; 237, 243, 245: 0.2 mm; 238, 241–242, 244, 246: 0.1 mm.



Figs 247–253: *Tectusa taurica* (247–249) and *Oxypoda besucheti* (250–253): 247, 250) labrum; 248, 251) labium; 249, 252) maxilla; 253) paramere. Scale bars: 253: 0.2 mm; 247–252: 0.1 mm.

Assing" (cAss); 1 ♂: same data, but leg. Wunderle (cWun); 4 ♂♂, 4 ♀♀, 7 exs.: "GR: Fthiótida, Parnassos, W Ski-Center, N-Hang, 1650 m, 38.33.08N / 22.34.07O, 14.IV.1998, Tannenwald, Schneerand, leg. Zerche" (SDEI, cAss); 2 ♂♂, 2 ♀♀: "GR: Fthiótida, Óros Iti, SO Kastania, N-Hang, S Bergsattel, Schnee im Rasen, 2010 m / 38°48'07N, 22°15'14O, 6.V.1999, leg. Zerche" (SDEI, cAss); 1 ♂: "GR: Fthiótida, Óros Iti, S Kastania, *Abies*, *Juniperus*, Schnee, Kalk-Hang, N-Seite, / 1660 m, 38°47'22N, 22°13'49O, 3.V.1999, leg. Zerche & Behne" (SDEI).

Etymology: The specific epithet is composed of the adjectives latus (broad) and lobatus (lobed). It alludes to the broadly flattened apical lobe of the paramere.

Description: Small species; body length 2.0–2.5 mm; length of forebody 0.9–1.0 mm. Habitus as in Fig. 177. Colouration: forebody blackish-brown to black; abdomen black with the apex (posterior margin of segment VII, posterior portion of segment VIII, and segments VIII–X) yellowish; legs and antennae yellow. Head and pronotum with weak shine, elytra significantly more glossy. Pubescence of forebody rather long and suberect.

Head (Fig. 178) approximately as broad as long, of suborbicular shape; punctation moderately dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes very small, composed of 8–10 ommatidia with pigmentation, approximately one-fourth as long as postocular region in dorsal view. Antenna short, approximately 0.6 mm long, and distinctly incrassate; antennomeres IV distinctly transverse, V–X of gradually increasing width and at least twice as broad as long, and XI as long as the combined length of IX and X, or nearly so.

Pronotum (Fig. 178) approximately 1.15 times as broad as long and 1.1 times as broad as head, broadest near anterior angles, more strongly narrowed posteriorly than anteriorly, weakly convex in cross-section; lateral margins straight in posterior two-thirds; punctation and microsculpture similar to those of head; pubescence of midline directed anteriad in anterior half and posteriad in posterior half.

Elytra (Fig. 178) short, 0.55–0.60 times as long as pronotum; punctation less dense and more distinct than that of pronotum; microsculpture less fine and dense than that of

Fig. 254: Distribution of the species of the *Tectusa killinica* group in South Greece: *T. killinica* (black circles); *T. vodiasa* (white triangles); *T. pauli* (white diamond); *T. apanoica* (white squares); *T. parnonica* (black diamonds); *T. timfristosensis* (black triangle); *T. viduus* (black triangle); *T. vardousiensis* (black star); *T. latilobata* (white circles).

pronotum. Hind wings completely reduced. Metatarsomere I as long as, or shorter than, the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation very fine; interstices with microsculpture composed of a mix of short and long transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: median lobe of aedeagus small, approximately 0.27 mm long and shaped as in Figs 179–180; ventral process very long and slender; paramere (Fig. 181) approximately 0.35–0.38 mm long; apical lobe short, flattened, broadest approximately in the middle, and apically rather obtuse.

♀: spermatheca as in Fig. 182.

Comparative notes: Among the described *Tectusa* species from Greece, this species is characterized particularly by small body size, very small eyes composed of few ommatidia, dark colouration of the body strongly constrasting with the yellowish appendages, and by the primary sexual characters.

Distribution and natural history: This species has been found in three geographically close mountains in the south of mainland Greece: Giona, Parnassos, and Iti (Fig. 254). The specimens were sifted from litter near snow in fir forests and from grass roots, moss, and the litter of cushion plants near snow at altitudes between 1650 and 2010 m.

Tectusa pauli sp.n.
(Figs 183–187, 254)

Type material: Holotype ♂: "GR, Nord-Peloponnes, Aroania-gebirge (Chelmos) 2000 [m], Schneefeld, 06.06.1996, P. Wunderle / Holotypus ♂ *Tectusa pauli* sp. n., det. V. Assing 2019" (cAss). **Paratypes:** 2 ♀♀: same data as holotype (cWun, cAss).

Etymology: This species is dedicated to my friend Paul Wunderle, who collected the type series.

Description: Small species; body length 2.2–2.5 mm; length of forebody 1.0 mm. Habitus as in Fig. 183. Colouration: forebody reddish-brown to blackish-brown; abdomen black with the apex (posterior margin of segment VII and segments VIII–X) yellowish to yellowish-brown; legs and antennae yellow. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody moderately long and depressed to suberect.

Head (Fig. 184) of suborbicular shape; punctation moderately dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes small, composed of approximately 12–15 ommatidia with pigmentation, approximately one-fourth to one-third as long as postocular region in dorsal view. Antenna short, 0.7 mm long, and distinctly incrassate; antennomeres IV distinctly transverse, V–X of gradually increasing width and approximately twice as broad as long, and XI as long as the combined length of IX and X, or nearly so.

Pronotum (Fig. 184) approximately 1.1 times as broad as long and 1.00–1.10 times as broad as head, broadest anterior to middle, more strongly narrowed posteriorly than anteriorly, weakly convex in cross-section; lateral margins nearly straight in posterior

half; punctation and microsculpture similar to those of head; pubescence of midline directed anteriad in anterior half and posteriad in posterior half.

Elytra (Fig. 184) short, 0.57–0.65 times as long as pronotum; punctation slightly less dense and slightly more distinct than that of pronotum; interstices with shallow, but distinct microreticulation. Hind wings completely reduced. Metatarsomere I as long as the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with distinct, tergite VI with indistinct anterior impressions; punctation fine, but noticeable; interstices with microsculpture composed of predominantly isodiametric (posterior tergites) and transverse meshes (anterior tergites); posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus 0.31 mm long and shaped as in Figs 185–186; paramere approximately 0.5 mm long; apical lobe elongate, flattened, broadest at basal third, and apically moderately acute.

♀: spermatheca as in Fig. 187.

Comparative notes: This species is distinguished from the sympatric *T. killinica* by yellow antennae and maxillary palpi, a less transverse and posteriorly more strongly tapering pronotum, a less convex posterior margin of the abdominal tergite VIII, and a smaller aedeagus with an apically less acute ventral process (both in lateral and in ventral view).

Distribution and natural history: The type locality is situated in Oros Chelmos (Oros Aroania), North Pelopónnisos (Fig. 254), at an altitude of 2000 m. The specimens were collected at the margins of snowfields.

Tectusa apanoica **sp.n.**
(Figs 190–194, 243, 254)

Type material: Holotype ♂: "GR: Peloponnes, Arkadía, Menalo-Geb., SW Levidi, Ski-Center, 1625 m, 37.39.06N / 22°15'48O, 22.IV.1998, Tannenwald, Schneeflecken, leg. Zerche / Holotypus ♂ *Tectusa apanoica* sp. n., det. V. Assing 2019" (SDEI). **Paratypes:** 2 ♂♂, 4 ♀♀: "GR: Peloponnes, Arkadía, Óros Melano(n) [sic; recte: Menalo], *Abies*-Wald, Schnee, N-Hang, / 1670 m, 37°39'06N, 22°15'43O, 23.IV.1999, leg. Zerche" (SDEI, cAss).

Etymology: The specific epithet is an adjective derived from Apano. Apano Chrepa is an old and now obsolete synonym of Menalo (= Mainalo).

Description: Small species; body length 2.0–2.3 mm; length of forebody 0.8–1.0 mm. Habitus as in Fig. 190. Colouration: forebody reddish-brown to blackish; abdomen black with the apex (posterior margin of segment VII and segments VIII–X) yellowish to yellowish-brown; legs yellow; antennae yellow to yellowish-brown. Eyes minute, composed of 10–15 ommatidia. Pubescence of pronotal midline directed anteriad in anterior fourth to half and posteriad in posterior half to three-fourths. Other external characters (Fig. 191) as in *T. pauli*.

♂: median lobe of aedeagus 0.33–0.35 mm long and shaped as in Figs 192–193; paramere (Fig. 243) approximately 0.45 mm long; apical lobe elongate, flattened, broadest at basal third, and apically moderately acute.

♀: spermatheca as in Fig. 194.

Comparative notes: This species differs from the similar *T. pauli* by a slightly larger aedeagus with an apically more acute ventral process and by a proximally more strongly curved spermatheca. The shape of the median lobe of the aedeagus somewhat resembles that of *T. killinica*, from which *T. apanoica* is distinguished especially by yellow antennae, a larger pronotum (in relation to the head, smaller average body size, a longer apical portion of the ventral process of the aedeagus in lateral view (angle closer to crista apicalis), and a spermatheca of different shape.

Distribution and natural history: *Tectusa apanoica* is most likely endemic to the Menalo (= Mainalo) range (Greece: Central Pelopónnisos) (Fig. 254). The specimens were collected in fir forests with snow at altitudes of 1625 and 1670 m.

Tectusa vodiasa sp.n.
(Figs 195–200, 254)

Type material: Holotype ♂: "Greece: Peloponnes, Panahaiko, Gipfelplateau, 38°12'29"N, 21°52'21"E, 1700–1750 m, Polsterpflanzen, Rasen, Gesiebe an Schneefeldrand, 4.IV.2016, leg. M. Schülke [GR 16-10] / Holotypus ♂ *Tectusa vodiasa* sp. n., det. V. Assing 2019" (MNB). **Paratypes:** 1 ♂, 3 ♀♀: same data as holotype (MNB, cAss); 1 ♂, 1 ♀: "GR: Peloponnes, Ahaïa, Panahaiko-Geb., N Shuli, Schnee auf Wiese, N-Hang / 1450 m, 38°11'03N, 21°51'38O, 29.IV.1999, leg. Behne" (SDEI).

Etymology: The specific epithet is an adjective derived from Vodias, the medieval name of the mountain where the species is probably endemic.

Description: Body length 3.0–3.5 mm; length of forebody 1.2–1.3 mm. Habitus as in Fig. 195. Colouration: forebody reddish-brown to blackish-brown; abdomen black with the apex (posterior portion of segment VIII and segments IX–X) reddish; legs yellow; antennae reddish. Forebody with some shine despite distinct microsculpture. Pubescence of forebody rather long and suberect.

Head (Fig. 196) approximately as long as broad, of suborbicular shape; punctation moderately dense, moderately fine, but shallow, barely noticeable in the pronounced microsculpture. Eyes small, composed of 10–15 ommatidia with pigmentation, approximately one-third as long as postocular region in dorsal view. Antenna moderately long (0.8–0.9 mm) and distinctly incrassate; antennomeres IV moderately transverse, V–X of gradually increasing width, X nearly twice as broad as long, and XI significantly shorter than the combined length of IX and X.

Pronotum (Fig. 196) approximately 1.1 times as broad as long and 1.05–1.10 times as broad as head, broadest near anterior angles, more strongly narrowed posteriorly than anteriorly, weakly convex in cross-section; lateral margins nearly straight in posterior two-thirds; punctation and microsculpture similar to those of head; pubescence of midline directed anteriad in anterior half and posteriad in posterior half.

Elytra (Fig. 196) short, approximately 0.6 times as long as pronotum; punctation slightly less dense and less fine than that of pronotum; microsculpture composed of slightly coarser meshes than that of pronotum. Hind wings completely reduced. Metatarsomere I slightly shorter than the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with distinct, tergite VI with shallower anterior impressions; punctation extremely fine, visible only at high magnification (100 x); interstices with microsculpture composed of transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII very obtusely angled in the middle.

♂: posterior margin of sternite VIII obtusely produced in the middle; median lobe of aedeagus approximately 0.4 mm long and shaped as in Figs 197–198; ventral process very acute apically both in lateral and in ventral view; paramere approximately 0.55 mm long; apical lobe moderately elongate, broadest in the middle, and apically obtuse.

♀: spermatheca as in Figs 199–200.

Comparative notes: *Tectusa vodiasa* is readily distinguished from the sympatric *T. affinis* of the *T. affinis* group by numerous external characters alone (see group characters in the section on *T. affinis*). For differences separating it from the sympatric *T. killinica* see the comparative notes in the section on that species.

Distribution and natural history: The known distribution is confined to two localities in Oros Panahaiko near Patras, North Pelopónnisos (Fig. 254). The specimens were sifted from cushion plants, grass roots, and debris near snowfields at altitudes of 1450 and 1700–1750 m.

Tectusa parnonica sp.n.
(Figs 201–207, 254)

Type material: Holotype ♂: "GR: Peloponnes, Lakonia, Parnon-Geb., Hochebene W Meg. Toúrla, *Abies*-Wald, Schnee, N-Hang / 1645 m, 37°16'44N, 22°36'19O, 19.IV.1999, leg. Zerche & Behne / Holotypus ♂ *Tectusa parnonica* sp. n., det. V. Assing 2019" (SDEI). **Paratypes:** 4 ♂♂, 4 ♀♀, 52 exs.: same data as holotype (SDEI, cAss); 92 exs.: "GR: Peloponnes, Lakonia, Parnon-Geb., Hochebene W Meg. Toúrla, *Abies*-Wald, Schnee, N-Hang / 1700 m, 37°16'45N, 22°36'29O, 19.IV.1999, leg. Zerche & Behne" (SDEI, cAss); 2 ♀♀, "GR: Peloponnes, Arkadía, Parnon-Geb., S Kastanitsa, 1385 m, 37°12'07N, 22°37'52E / 19.IV.1998, Tannen-Kiefern-Wald, Schneefelder, leg. Zerche & Behne" (SDEI).

Etymology: The specific epithet is an adjective derived from Parnon, the name of the mountain range where this species is most likely endemic.

Description: Body length 2.0–3.0 mm; length of forebody 1.0–1.3 mm. Habitus as in Fig. 201. Colouration: forebody blackish-brown to black, rarely paler; abdomen black; legs brown, with yellowish tarsi and with the femora often darker; antennae reddish to dark-brown. Head and pronotum nearly matt; elytra with subdued shine. Pubescence of forebody rather long and depressed to suberect.

Head (Fig. 202) approximately as long as broad; punctation moderately dense, extremely fine, barely visible even at high magnification (100 x); interstices with pronounced microreticulation. Eyes small, composed of approximately 15 ommatidia with pigmentation, approximately one-third as long as postocular region in dorsal view. Antenna moderately long (approximately 0.8 mm) and distinctly incrassate; antennomeres IV moderately transverse, V–X of gradually increasing width, VI–X approximately twice as broad as long, X longer than IX and nearly twice as broad as long, and XI significantly shorter than the combined length of IX and X.

Pronotum (Fig. 202) of somewhat variable shape, usually 1.10–1.15 times as broad as long and 1.10–1.15 times as broad as head, broadest near anterior angles, more strongly

narrowed posteriorly than anteriorly, moderately convex in cross-section; lateral margins straight or weakly convex in posterior two-thirds; punctation and microsculpture similar to those of head; pubescence of midline directed anteriad in anterior half and posteriad in posterior half.

Elytra (Fig. 202) short, approximately 0.6 times as long as pronotum; punctation slightly less dense and less fine than that of pronotum; microsculpture distinct, but less pronounced than that of pronotum. Hind wings completely reduced. Metatarsomere I as long as, or slightly shorter than the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with, tergite VI without distinct anterior impressions; punctation extremely fine, visible only at high magnification (100 x); interstices with microsculpture composed of short transverse meshes on anterior tergites and more or less isodiametric meshes on tergites V–VII; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII convex.

♂: posterior margin of sternite VIII obtusely angled in the middle; median lobe of aedeagus approximately 0.38 mm long and shaped as in Figs 203–204; ventral process very acute apically both in lateral and in ventral view; paramere (Fig. 205) 0.55–0.60 mm long; apical lobe moderately elongate, broadest at basal third, and apically rather acute.

♀: spermatheca as in Figs 206–207, length of proximal portion subject to some variation.

Comparative notes: Among the species of similarly small size and with similarly small eyes, *T. parnonica* is characterized by its dark colouration, pronounced microsculpture of the forebody, a relatively broad pronotum, and by the shape of the aedeagus.

Distribution and natural history: This species is most likely endemic to the Parnon range in the Southeast Pelopónnisos (Fig. 254). The specimens were sifted from litter near snow in fir forests and a mixed fir and pine forest at altitudes of 1385–1700 m.

Tectusa affinis group

The species of this group share the following characters: body of moderate size and robust habitus; pronotum and elytra reddish to reddish-brown; eyes composed of approximately 25–30 ommatidia; pronotum large in relation to head, distinctly transverse, and with pubescence of type II; antennae slender, preapical antennomeres moderately transverse; tarsi slender, with metatarsomere I nearly as long as the combined length of metatarsomeres II–IV; ventral process of aedeagus subapically broad and apically acute in lateral view; apical lobe of paramere slender, broadest near base, and apically acute; spermatheca with a large apical cuticular invagination. Aside from the six species treated below, the following examined described taxa belong to this group: *T. longiuter*; *T. rastrifera*. All the species currently in this group are distributed in Greece (Fig. 255).

Tectusa affinis (Eppelsheim, 1884)
(Figs 208–211, 255)

Leptusa affinis Eppelsheim, 1884: 42 f.

Material examined: GREECE: Pelopónnisos: 1 ♀, Panahaiko, above Ano Kastritsi, 38°14'58"N, 21°51'32"E, 1500 m, 28.III.1997, leg. Assing (cAss); 1 ♂, 1 ♀, Panahaiko, 38°11'00"N, 21°51'41"E, 1610 m, snowfields, 29.IV.1998, leg. Zerche (SDEI).

Comment: The original description is based on few syntypes ("wenigen Exemplaren") collected "bei Patras" (EPPELSHEIM 1884). The type material has been out on loan to L. Zerche for more than 20 years and was not available for study. However, according to the labels attached to the specimens below, they had been compared with the syntypes.

Redescription: Body length 2.6–3.0 mm; length of forebody 1.2–1.4 mm. Habitus as in Fig. 208. Colouration: forebody reddish-brown to blackish-brown, with or without the head slightly darker than the pronotum and elytra; abdomen blackish with the posterior margin of segment VII and segments VIII–X yellowish-brown; legs pale-reddish; antennae reddish. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody rather short and more or less depressed.

Head (Fig. 209) of suborbicular shape; punctation dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes moderately small, composed of approximately 25–30 ommatidia with pigmentation, approximately one-third as long as postocular region in dorsal view. Antenna rather long and slender, 0.9–1.0 mm long, not distinctly incrassate; antennomeres IV as long as broad or weakly oblong, V weakly transverse, VI–X of gradually (but weakly) increasing width, barely 1.5 times as broad as long, and XI less than twice as long as broad and approximately as long as the combined length of IX and X.

Pronotum (Fig. 209) approximately 1.10–1.15 times as broad as long and 1.15–1.20 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately strongly convex in cross-section; lateral margins nearly straight in posterior half; punctation and microsculpture similar to those of head; midline with pubescence directed posteriad along its entire length.

Elytra (Fig. 209) moderately short, approximately 0.6 times as long as pronotum; punctation slightly less dense and much more distinct than that of pronotum; microsculpture composed of coarser meshes than that of pronotum. Hind wings completely reduced. Metatarsomere I nearly as long as the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with shallow microsculpture composed of transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus 0.37 mm long and shaped as in Fig. 210; ventral process acute both in lateral and in ventral view; paramere approximately 0.65 mm long; apical lobe rather long, flattened, basally moderately dilated, gradually tapering apicad, and apically very acute.

♀: spermatheca as in Fig. 211.

Comparative notes: Among the species of the *T. affinis* group, *T. affinis* is characterized particularly by the shape of the median lobe of the aedeagus. For additional distinguishing characters see the comparative notes in the following sections.

Distribution and natural history: The distribution of *T. affinis* is most likely confined to Panahaiko mountain in the North Pelopónnisos (Fig. 255). The recently collected specimens were found by sifting grass roots and debris at the margins of snowfield at altitudes of 1500–1610 m.

Tectusa acrilobata sp.n.
(Figs 212–218, 255)

Type material: Holotype ♂: "GR. Pelopónnisos, Erimanthos, oberh. Kalendzi, Sattel, 1500 m, 37°56'38N, 21°46'30E, 27.III.1997, V. Assing / Holotypus ♂ *Tectusa acrilobata* sp. n., det. V. Assing 2019" (cAss). **Paratypes**: 3 ♀♀: same data as holotype (cAss); 1 ♂, 2 ♀♀: "GR. Pelopónnisos, Erimanthos, oberh. Kalendzi, *Abies*, 1200 m, 37°57'02N, 21°46'34E, 27.III.1997, V. Assing" (cAss); 1 ♂: "GR – Peloponnes, Erymanthos, Kalentzi, ca. 1350 m, Tannenwald, 27.3.97 P. Wunderle" (cWun); 1 ♀: "GR – Peloponnes, Erymanthos, Kalentzi, Pass, 1500 m, Rasen, Tanne, 27.3. 97 P. Wunderle" (cWun); 1 ♂: "GR: Peloponnes, Ahaïa, Erimanthos-Gebirge, oberhalb Kaléntzi, 1150 m, NW-Hang, Tannenwald / Gesiebe, 37°56'38N, 21°46'30O, 27.3.1997, leg. L. Zerche" (SDEI).

Etymology: The specific epithet (adjective: acutely lobed) alludes to the shape of the apical lobe of the paramere.

Description: Species of relatively large size; body length 2.8–3.3 mm; length of forebody 1.3–1.4 mm. Habitus as in Fig. 212. Colouration: head dark-brown to blackish-brown; pronotum and elytra reddish to reddish-brown; abdomen reddish with most of segments VI–VII blackish and with the discs of tergites III–V more or less extensively infuscate; legs pale-reddish; antennae reddish. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody short, indistinct, and depressed.

Head (Fig. 213) approximately as broad as long, of suborbicular shape; punctation dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes moderately small, composed of approximately 25 ommatidia with pigmentation, noticeably more than one-third as long as postocular region in dorsal view. Antenna rather long and slender, 0.9–1.0 mm long, not distinctly incrassate; antennomeres IV as long as broad or weakly oblong, V weakly transverse or as long as broad, VI–X of gradually (but weakly) increasing width, barely 1.5 times as broad as long, and XI nearly twice as long as broad and as long as the combined length of IX and X.

Pronotum (Fig. 213) approximately 1.1 times as broad as long and 1.15 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately strongly convex in cross-section; lateral margins nearly straight in posterior half; punctation and microsculpture similar to those of head; midline with pubescence directed posteriad along its entire length.

Elytra (Fig. 213) moderately short, approximately 0.6 times as long as pronotum; punctation slightly less dense and much more distinct than that of pronotum; microsculpture composed of coarser meshes than that of pronotum. Hind wings completely reduced. Metatarsomere I nearly as long as the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with shallow microsculpture composed of transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus 0.40–0.43 mm long and shaped as in Figs 214–215; ventral process of distinctive shape especially in lateral view; paramere (Fig. 216) nearly 0.7 mm long; apical lobe rather long, flattened, basally moderately dilated, gradually tapering apicad, and apically very acute.

♀: spermatheca as in Figs 217–218.

Comparative notes: *Tectusa acrilobata* is distinguished from the closely related *T. affinis* by a slightly smaller and more slender body, a less transverse pronotum, a slightly larger aedeagus of slightly different shape, and a spermatheca with a longer proximal portion and an apical cuticular invagination of different shape.

Distribution and natural history: This species was found in three localities in the Erimanthos range (Greece: Northwest Pelopónnisos) (Fig. 255), where it is probably endemic. The specimens were collected by sifting grass roots, moss, and litter beneath cushion plants near snow at an altitude of 1500 m, and by sifting litter near snow in a fir forest at an altitude of 1200 m.

Tectusa chelmosica sp.n.
(Figs 219–224, 255)

Type material: Holotype ♂: "GR. Pelopónnisos, Aroania-Geb., 1450 m, 10 km E Kalavrita, 38°01'02N, 22°10'21E, 29.III.1997, V. Assing / Holotypus ♂ *Tectusa chelmosica* sp. n., det. V. Assing 2019" (cAss). **Paratypes:** 1 ♂, 2 ♀♀: "GR: Peloponnes, Ahaïa, 10 km O Kalávrita, Aroánia, Straße zum Chelmos, 1450 / m, Gesiebe im Tannenwald, 38°01'02N, 22°10'21O, 30.3.1997, leg. L. Zerche" (SDEI); 1 ♂, 2 ♀♀: "GR: Peloponnes, Ahaïa, Chelmos-Geb., Straße Kalávrita–Xerokambos (Ski-Center), *Abies*-Wald, / Schnee, N-Hang, 1545 m, 38°01'17N, 22°10'43O, 23.IV.1999, leg. Zerche" (SDEI); 2 ♂♂: "GR: Ahaïa, Chelmos, Str. von Kalavrita zum Xerokambos (Ski-Center), 1450 m, 3.IV.2000, *Abies*-Wald / Schneefelder, 38°01'18N, 22°10'45O, leg. Zerche" (SDEI, cAss); 1 ♀: "N38°01'17 E22°10'45 (4), GR Peloponnes, 13.4.2017, Mt. Helmon 1550 m, leg. Brachat & Meybohm" (cAss).

Etymology: The specific epithet is an adjective derived from Chelmos, the mountain where this species may be endemic.

Description: Body length 2.6–3.2 mm; length of forebody 1.1–1.4 mm. Habitus as in Fig. 219. Colouration: forebody reddish to blackish-brown with the head often slightly darker than pronotum and elytra; abdomen dark-brown to black with paler apex (segments VIII–X), sometimes with segments III–IV paler, reddish to brown; legs reddish with yellow tarsi; antennae reddish. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody short and depressed.

Head (Fig. 220) approximately as broad as long, of suborbicular shape; punctation dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes moderately small, composed of approximately 25 ommatidia with pigmentation, approximately one-third as long as postocular region in dorsal view. Antenna rather long and slender, 0.9–1.0 mm long, weakly incrassate; antennomeres IV as long as broad or weakly oblong, V–X of gradually (but weakly) increasing width, less than 1.5 times as broad as long, and XI less than twice as long as broad and as long as the combined length of IX and X.

Pronotum (Fig. 220) 1.13–1.23 times as broad as long and 1.21–1.24 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately strongly convex in cross-section; lateral margins nearly straight or weakly convex in posterior half; punctation and microsculpture similar to those of head; midline with pubescence directed posteriad along its entire length.

Fig. 255: Distribution of the species of the *Tectusa affinis* group in South Greece: *T. affinis* (black circles); *T. acrilobata* (white squares); *T. chelmosica* (white diamonds); *T. menaloica* (black squares); *T. taygetana* (black triangles); *T. longiuter* (black diamond); *T. rastrifera* (white circles); *T. leonhardi* (black star).

Comparative notes: Based on external characters and particularly the morphology of the aedeagus (shape and internal structures of median lobe; shape of apical lobe of paramere), *T. chelmosica* belongs to the species group including *T. affinis* and allied species. It is distinguished from the geographically close *T. acrilobata* by a relatively larger and more transverse pronotum, a smaller aedeagus of slightly different shape, and a spermatheca with an apical cuticular invagination of different shape.

Distribution and natural history: This species was found in three localities in Oros Aroania (Greece: North Pelopónnisos) (Fig. 255), where it is probably endemic. The specimens were collected in fir forests by sifting litter near snow at altitudes of 1450 and approximately 1550 m.

Tectusa menaloica sp.n.
(Figs 225–230, 255)

Type material: Holotype ♂: "GR: Peloponnes, Arkadía, Óros Melano(n) [sic; recte: Menalo], *Abies*-Wald, Schnee, N-Hang, / 1670 m, 37°39'06N, 22°15'43O, 23.IV.1999, leg. Zerche / Holotypus ♂ *Tectusa menaloica* sp. n., det. V. Assing 2019" (SDEI). **Paratypes:** 1 ♀: same data as holotype (SDEI); 1 ♂, 1 ♀: "GR: Peloponnes, Arkadía, Menalo-Geb., SW Levidi, Ski-Center, 1625 m, 37.39.06N / 22°15'48O, 22.IV.1998, Tannenwald, Schneeflecken, leg. Zerche" (SDEI); 1 ♂: "GR: Arkadía, Melano(n) [sic], N-Hang am Ski-Center, 2.IV.2000, 1670 m, *Abies*-Wald / Schneefelder, 37°39'06N, 22°15'43O, leg. Zerche" (cAss); 1 ♀: "N37°33'06 E22°11'09 (25), GR Peloponnes, 20.4.2017, Ditiko Menalo 1280 m, leg. Brachat & Meybohm" (cAss); 1 ♀: "Greece: Peloponnes, W Menalon, 3.5 km NW Chrysovitsi, 1294 m, 37°34'08.5"N, 22°10'06.1"E, *Abies* forest, sifted, 21.IV.2015, leg. M. Schülke [GR 15-05]" (MNB).

Etymology: The specific epithet is an adjective derived from Menalo, the mountain where this species may be endemic.

Description: Body length 2.9–3.5 mm; length of forebody 1.3–1.5 mm. Habitus as in Fig. 225. Eyes composed of > 30 ommatidia. Pronotum (Fig. 226) approximately 1.1 times as broad as long and 1.2 times as broad as head. Other external characters as in *T. chelmosica*.

♂: median lobe of aedeagus 0.47–0.52 mm long and shaped as in Figs 227–228; paramere (Fig. 229) 0.73–0.80 mm long.

♀: spermatheca as in Fig. 230.

Comparative notes: *Tectusa menaloica* is distinguished from the closely related *T. affinis*, *T. acrilobata*, and *T. chelmosica* only by slightly larger size, a less transverse pronotum, slightly larger eyes, and a larger aedeagus with a weakly pronounced crista proximalis.

Distribution and natural history: This species is most likely endemic to Oros Menalo (= Mainalo) (Greece: Central Pelopónnisos) (Fig. 255). The specimens were collected in fir forests by sifting litter near snow at altitudes of 1280–1670 m.

Tectusa taygetana sp.n.
(Figs 231–235, 255)

Type material: Holotype ♂: "GR: Peloponnes, Messinía, nördl. Taigetos-Geb., W. Mt. Pserovoúnia, *Abies*-Wald, Schnee, N-Hang, / 1545 m, 37°06'38N, 22°16'50O, 22.IV.1999, leg. Zerche & Behne / Holotypus ♂ *Tectusa taygetana* sp. n., det. V. Assing 2019" (SDEI). **Paratypes:** 1 ♂, 3 ♀♀: same data as holotype (SDEI, cAss); 1 ♀: "GR: Peloponnes, Lakonia, Taigetos-Geb., Weg Paleopanagia – Prof. Ilias, *Abies*, *Pinus*, Schnee / O Hütte, 1570 m, 36°57'00N, 22°22'06O, 20.IV.1999, leg. Zerche" (SDEI).

Etymology: The specific epithet is an adjective derived from Taygetos, the mountain range where this species may be endemic.

Description: Body length 2.7–3.2 mm; length of forebody 1.3–1.4 mm. Habitus as in Fig. 231. Colouration: forebody brown to dark-brown; abdomen dark-brown to black with paler apex (segments VIII–X and posterior portion of segment VII); legs reddish with yellow tarsi; antennae reddish. Pubescence of forebody short and depressed.

Head (Fig. 232) approximately as broad as long, of suborbicular shape; punctation dense, extremely fine, visible only at high magnification (100 x); interstices with distinct

microreticulation. Eyes moderately small, composed of approximately 25–30 ommatidia with pigmentation, nearly half as long as postocular region in dorsal view. Antenna approximately 1.0 mm long, weakly incrassate; antennomeres IV as long as broad, V–X of gradually (but weakly) increasing width, X barely 1.5 times as broad as long, and XI less than twice as long as broad and as long as the combined length of IX and X.

Pronotum (Fig. 232) 1.15–1.20 times as broad as long and approximately 1.25 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately strongly convex in cross-section; lateral margins nearly straight or weakly convex in posterior half; punctation slightly more distinct than that of head; interstices with pronounced microsculpture; midline with pubescence directed posteriad along its entire length.

Elytra (Fig. 232) approximately 0.6 times as long as pronotum; punctation less dense and much more distinct than that of pronotum; microsculpture shallow. Hind wings completely reduced. Metatarsomere I approximately as long as the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with shallow microsculpture composed of transverse striae and transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus large, approximately 0.6 mm long and shaped as in Figs 233–234; paramere approximately 0.8 mm long; apical lobe rather long, flattened, basally moderately dilated, gradually tapering apicad, and apically acute.

♀: spermatheca as in Fig. 235.

Comparative notes: Based on external and sexual characters, *T. taygetana* undoubtedly belongs to the *T. affinis* group. It is distinguished from other representatives of this group particularly by a significantly larger aedeagus.

Distribution and natural history: This species is most likely endemic to the Taygetos range (Greece: Southwest Pelopónnisos) (Fig. 255). The specimens were collected in a fir forest and a mixed pine and fir forest by sifting litter near snow at altitudes of 1545 and 1570 m.

Tectusa leonhardi (Bernhauer, 1912)

(Figs 236–238, 255)

Ocyusa leonhardi Bernhauer, 1912: 263 f.

Type material examined: Syntype ♀: "Kephallenia 1905, Eleutherios-Pass, O. Leonhard / *Ocyusa Leonhardi* Brh. / *Ocyusa Leonhardi* Bernh. Type / Syntypus / DEI Müncheberg, Col – 13313 / *Tectusa leonhardi* (Bernhauer), det. V. Assing 2019" (SDEI).

Comment: The original description is based on two syntypes ("zwei Exemplare") collected "auf Kephallenia am Eleuterios-Passe" (Bernhauer 1912). One of these syntypes (examined) is deposited in SDEI, the other in FMNH (not examined).

Redescription: Body length 2.8 mm; length of forebody 1.2 mm. Habitus as in Fig. 236. Colouration: forebody reddish; abdomen blackish with the posterior portion of segment

VII and segments VIII–X yellowish; legs yellow; antennae reddish-yellow. Head and pronotum with weak shine, elytra more glossy. Pubescence of forebody depressed.

Head (Fig. 237) of suborbicular shape; punctation dense, extremely fine, visible only at high magnification (100 x); interstices with distinct microreticulation. Eyes moderately small, composed of approximately 30 ommatidia with pigmentation, approximately half as long as postocular region in dorsal view. Antenna approximately 0.8 mm long, weakly incrassate; antennomeres IV–X weakly transverse, X barely 1.5 times as broad as long, and XI less than twice as long as broad and shorter than the combined length of IX and X.

Pronotum (Fig. 237) approximately 1.1 times as broad as long and 1.15 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately strongly convex in cross-section; lateral margins nearly straight in posterior half; punctation and microsculpture similar to those of head; pubescence of midline disturbed in the examined syntype, probably directed posteriad along its entire length.

Elytra (Fig. 237) short, 0.55 times as long as pronotum; punctation slightly less dense and more distinct than that of pronotum; microsculpture shallow and predominantly transverse. Hind wings completely reduced. Metatarsomere I shorter than the combined length of metatarsomeres II–IV.

Abdomen: tergites III–V with, tergite VI without anterior impressions; punctation fine and dense; interstices with shallow microsculpture composed of transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: unavailable.

♀: spermatheca as in Fig. 238.

Comparative notes: *Tectusa leonhardi* belongs to the *T. affinis* group. It is distinguished from most other species of this group by shorter elytra, shorter antennae, and by the shape of the spermatheca.

Distribution and natural history: This species has been reported only from the Ionian island Kefallinía, Greece (Fig. 255).

Species belonging to other groups

Tectusa fimbriata sp.n.
(Figs 239–242)

Type material: Holotype ♀: "GR. Pelopónnisos, Panahaiko-Geb., 1500 m, oberh. Ano Kastritsi, 38°14'58N, 21°51'32E, 28.III.1997, V. Assing / Holotypus ♀ *Tectusa fimbriata* sp. n., det. V. Assing 2019" (cAss). **Paratype** ♀: same data as holotype (cAss).

Etymology: The specific epithet (Latin, adjective: with a fringe) alludes to the presence of a palisade fringe at the posterior margin of the abdominal tergite VIII.

Description: Body length 2.7–2.9 mm; length of forebody 1.3 mm. Habitus as in Fig. 239. Colouration: head dark-brown; pronotum and elytra reddish-brown; abdomen blackish-brown to blackish with the anterior tergites and the apex (segments VIII–X) paler brown;

legs reddish-yellow with yellow tarsi; antennae dark-brown. Head and pronotum with subdued shine due to distinct microsculpture, elytra more glossy. Pubescence of forebody moderately long and suberect.

Head (Fig. 240) weakly oblong, of suborbicular shape; punctation moderately dense and extremely fine, barely visible even at high magnification (100 x); interstices with pronounced microreticulation. Eyes relatively large, composed of numerous (approximately 50) ommatidia with pigmentation, more than half as long as postocular region in dorsal view. Antenna slender, approximately 0.9 mm long, and weakly incrassate; antennomeres IV–X distinctly transverse, of weakly increasing width, X approximately 1.5 times as broad as long, and XI approximately twice as long as broad and slightly longer than the combined length of IX and X.

Pronotum (Fig. 240) approximately 1.12 times as broad as long and 1.12 times as broad as head, broadest in anterior half, more strongly narrowed posteriorly than anteriorly, moderately convex in cross-section; lateral margins nearly straight or weakly convex in posterior half; punctation fine, but more distinct than that of head; microsculpture similar to that of head; pubescence of midline directed anteriad only in anterior fifth and posteriad in posterior four-fifths.

Elytra (Fig. 240) rather long, approximately 0.85 times as long as pronotum; punctation dense, significantly more distinct than that of pronotum; microsculpture very shallow. Hind wings completely reduced. Metatarsomere I slightly longer than the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with, tergite VI without distinct anterior impressions; punctation fine and rather dense; interstices with microsculpture composed of isodiametric meshes of tergites V–VII; posterior margin of tergite VII with rudiment of a palisade fringe; posterior margin of tergite VIII weakly convex.

♂: unknown.

♀: spermatheca as in Figs 241–242.

Comparative notes: *Tectusa fimbriata* is distinguished from all other *Tectusa* species distributed in the Pelopónnisos by external characters alone, particularly large eyes, longer elytra, and the presence of a narrow palisade fringe at the posterior margin of tergite VII.

Distribution and natural history: The type locality is situated in Oros Panahaiko, North Pelopónnisos. The specimens were sifted from grass roots in an unforested plateau at an altitude of 1500 m.

Tectusa taurica Assing, 2004
(Figs 247–249)

Tectusa taurica Assing, 2004b: 703 f.

Comment: This species differs from all other species listed in the catalogue by sexually dimorphic antennae with the male antennomere XI longer and noticeably constricted in the middle. Based on the shape of the pronotum, the mouthparts (Figs 247–249), and the morphology of the aedeagus (shape of apical lobe of parameres and of dorso-apical

structures of median lobe), however, it does not belong to *Parocyusa*, which is why it is retained in *Tectusa* for the time being.

Unnamed species

The examined material included several species represented exclusively by females. Consequently, these species remain undescribed for the time being.

Tectusa sp. 1

Material examined: GREECE: Pelopónnisos: 2 ♀♀, Ahaïa, Kaliphoni range, S Ano Vlasia, 37°57'41"N, 21°53'54"E, 1470 m, fir forest with snow, 25.IV.1999, leg. Zerche (SDEI).

This species belongs to the *T. affinis* group.

Tectusa sp. 2

Material examined: GREECE: Pelopónnisos: 1 ♀, Ahaïa, Klokou, Keruneias above Fteri, 38°09'22"N, 22°03'43"E, 1300 m, fir forest, snowfield, 29.III.2000, leg. Zerche & Behne (SDEI).

Like *Tectusa* sp. 1, this species belongs to the *T. affinis* group.

Tectusa sp. 3

Material examined: GREECE: Pelopónnisos: 1 ♀, Korinthía, Killini range, S Trikala, 37°55'41"N, 22°24'09"E, 2060–2080 m, snowfield, 28.IV.1998, leg. Zerche (SDEI).

This species, too, belongs to the *T. affinis* group.

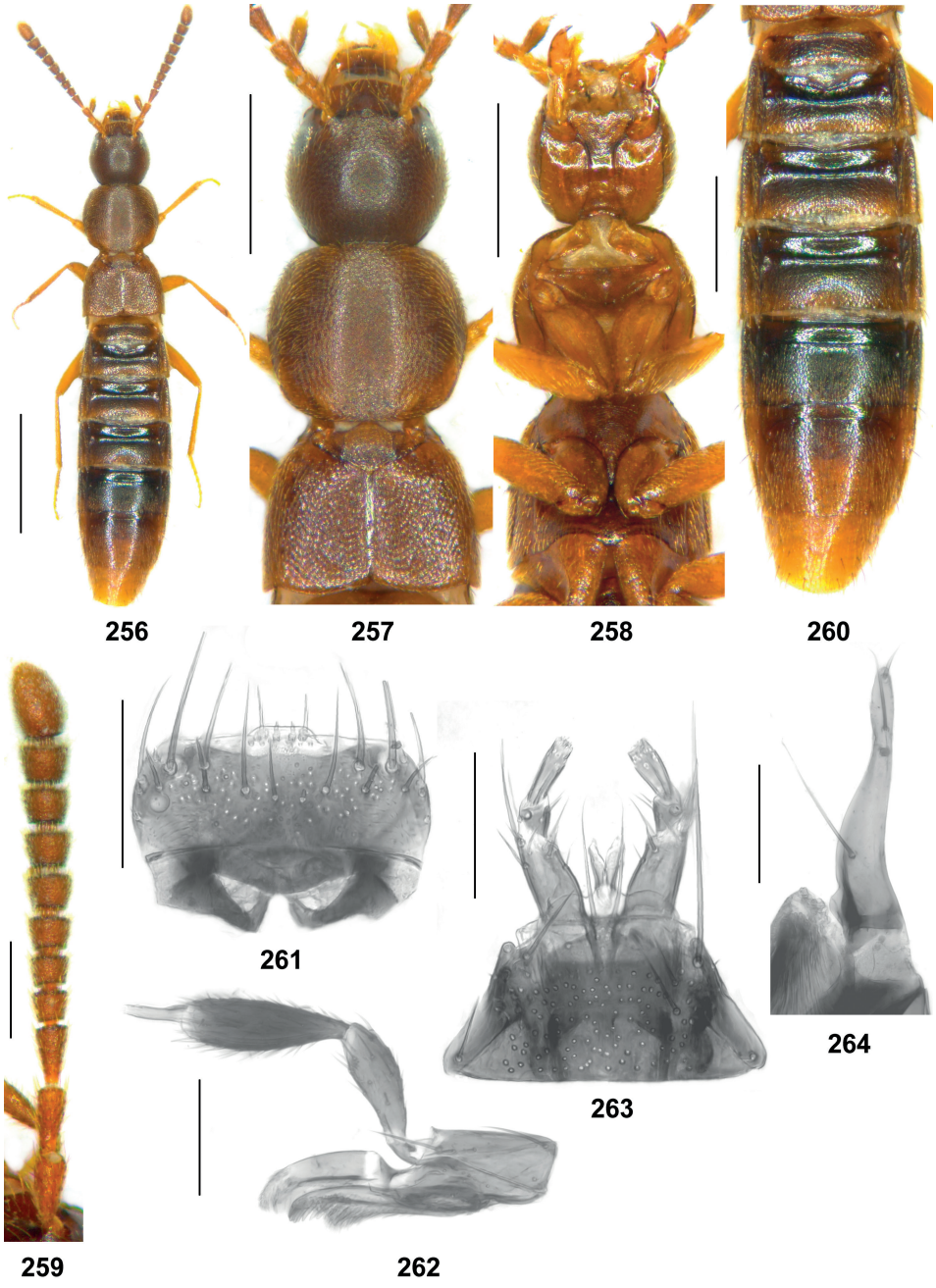
Tectusa sp. 4

Material examined: GREECE: Pelopónnisos: 2 ♀♀, Erimanthos, pass above Kalentzi, 37°56'38"N, 21°46'30"E, 1500 m, 27.III.1997, leg. Assing & Wunderle (cAss, cWun); 1 ♀, same data, but 37°56'15"N, 21°47'23"E, 1490 m, meadow, under stones, 26.IV.1999, leg. Zerche (SDEI).

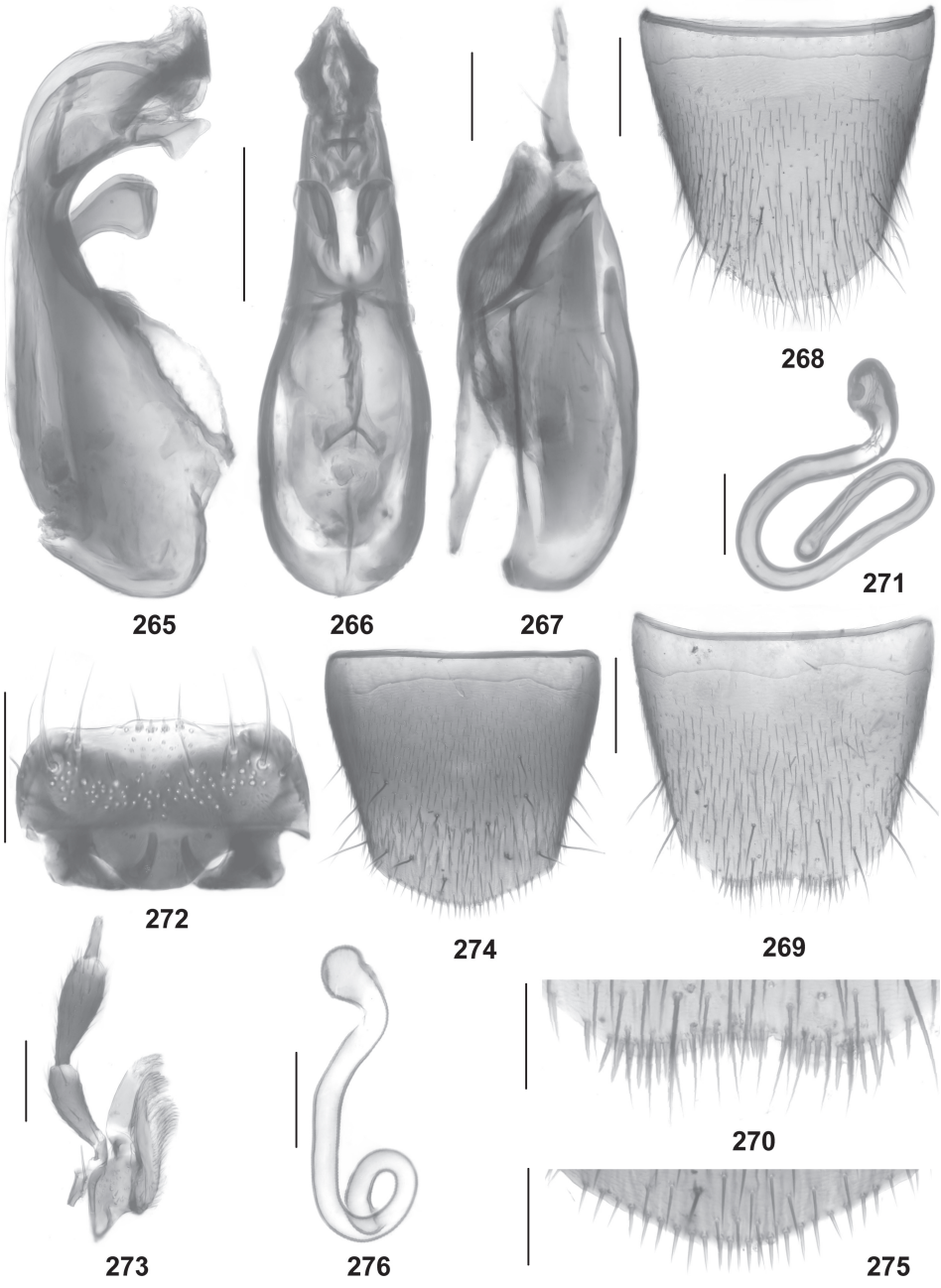
Based on external characters (small size, slender habitus, shape and pubescence pattern of pronotum), this species is closely allied to *T. killinica*.

Tectusa sp. 5

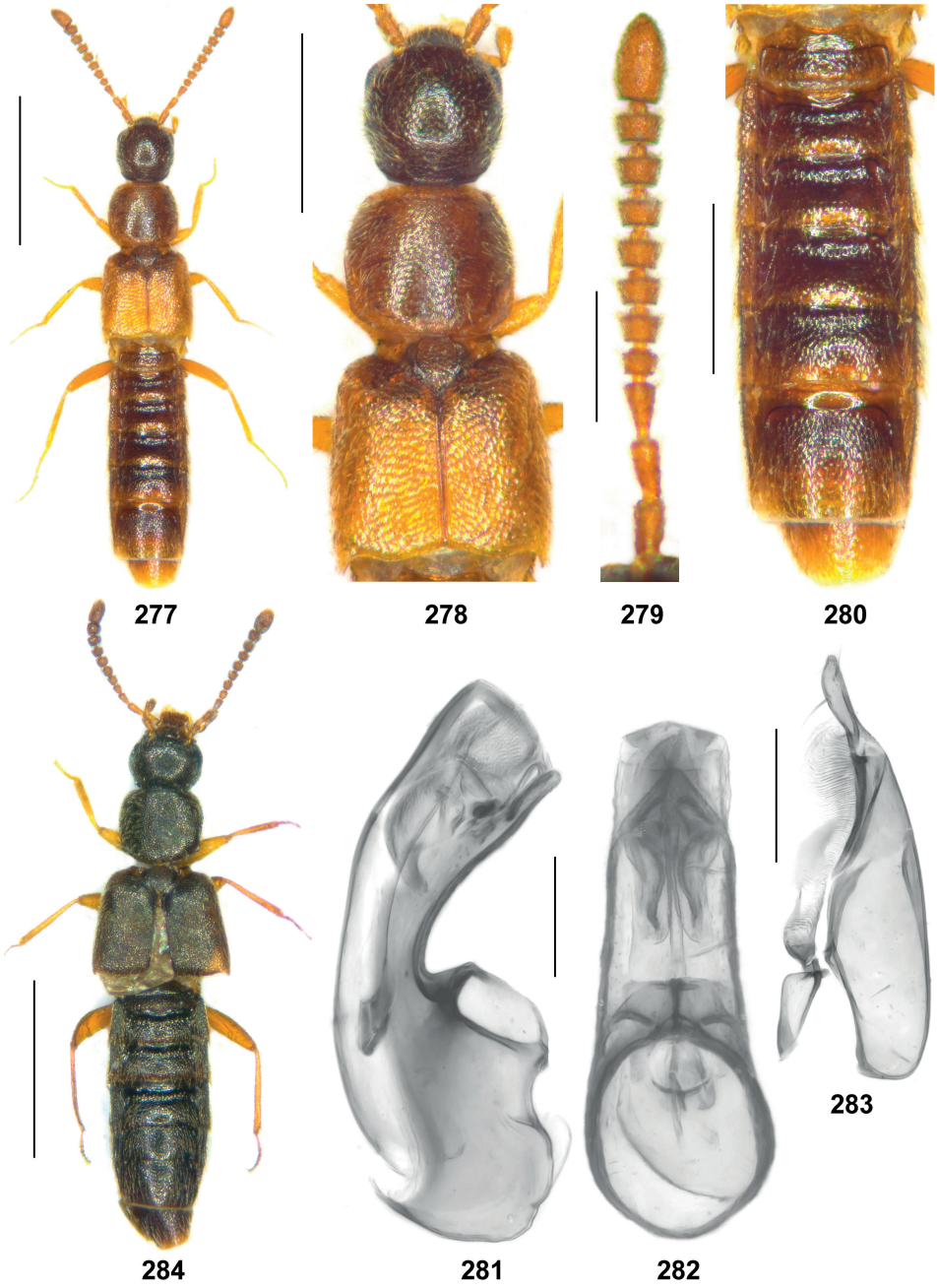
Material examined: GREECE: Pelopónnisos: 1 ♀, E Kalavrita, Aroania, plateau near ski resort, 38°00'45"N, 22°11'33"E, 1700 m, fir and juniper litter near and under snow sifted, 30.III.1997, leg. Assing (cAss); 2 ♀♀, 10 km E Kalavrita, Aroania, 38°01'02"N, 22°10'21"E, 1450 m, 29.III.1997, leg. Assing (cAss); 5 ♀♀, same data, but 30.III.1997, leg. Zerche (SDEI), 1 ♀, same data, but 38°01'13"N, 22°10'35"E, 1465 m, 12.IV.1998, leg. Zerche (SDEI); 3 ♀♀, Aroania, road to Xerokambos, 38°00'36"N, 22°11'27"E, 1650 m, fir forest with snow, 12.IV.1998, leg. Zerche (SDEI).



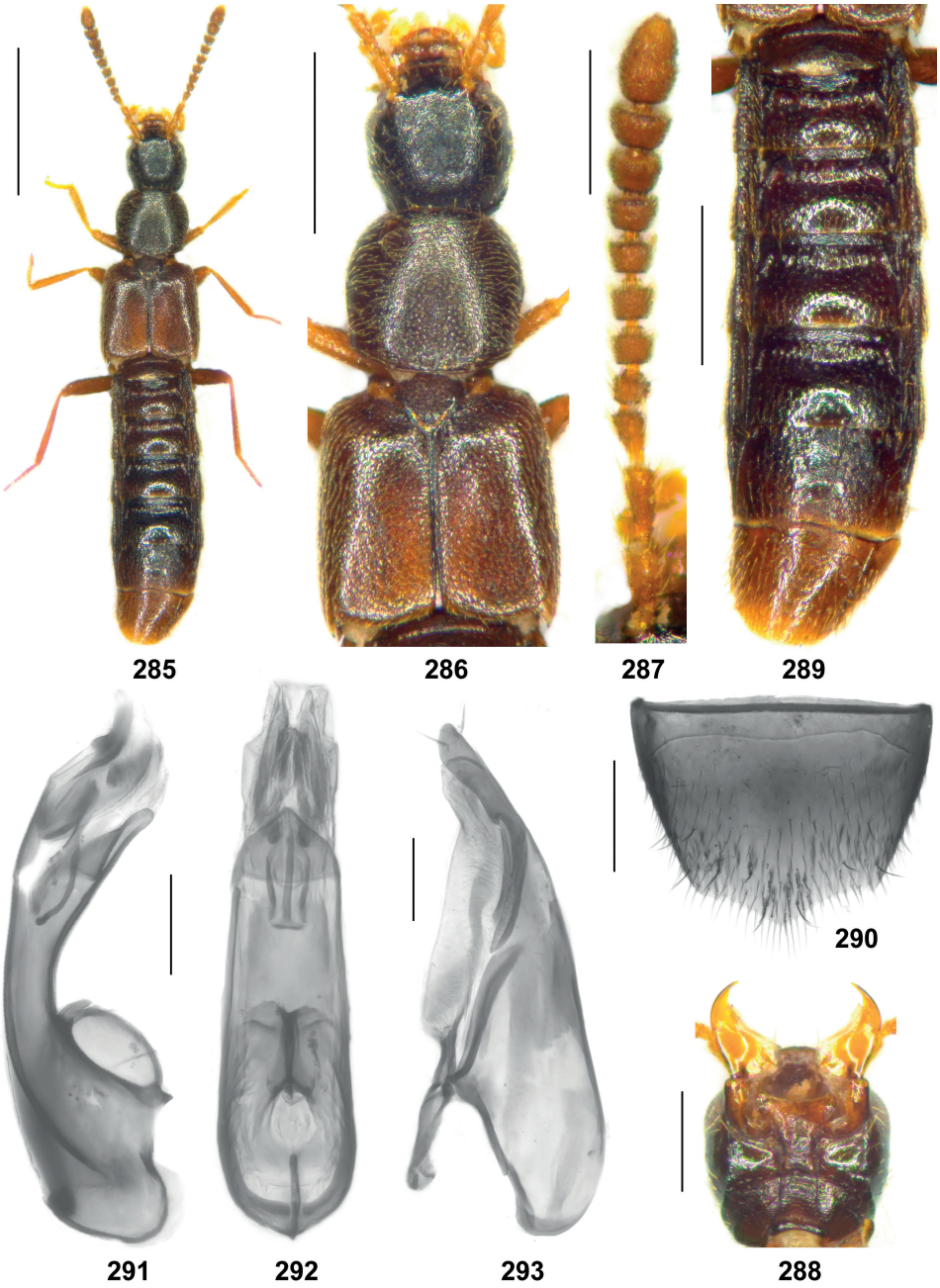
Figs 256–264: *Duplocyusa uludaghensis*: 256) habitus; 257) forebody in dorsal view; 258) forebody in ventral view; 259) antenna; 260) abdomen; 261) labrum; 262) maxilla; 263) labium; 264) apical lobe of paramere. Scale bars: 256: 1.0 mm; 257–258, 260: 0.5 mm; 259, 264: 0.2 mm; 261–263: 0.1 mm.



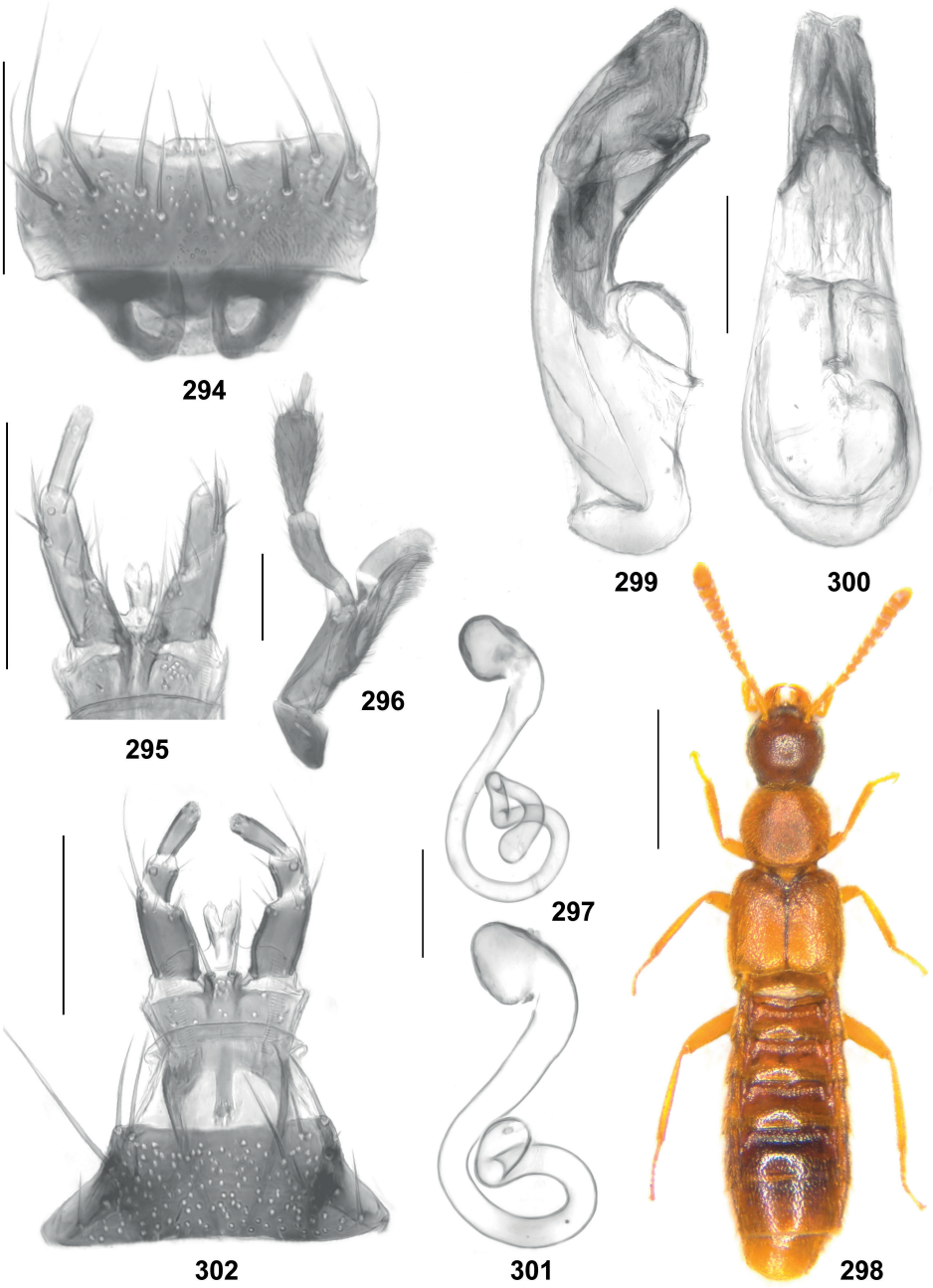
Figs 265–276: *Duplocyusa uludaghensis* (265–271) and *D. bucegiensis* (272–276): 265–266) median lobe of aedeagus in lateral and in ventral view; 267) paramere; 268) male sternite VIII; 269, 274) female sternite VIII; 270, 275) posterior margin of female sternite VIII; 271, 276) spermatheca; 272) labrum; 273) maxilla. Scale bars: 265–269, 274: 0.2 mm; 270–273, 275–276: 0.1 mm.



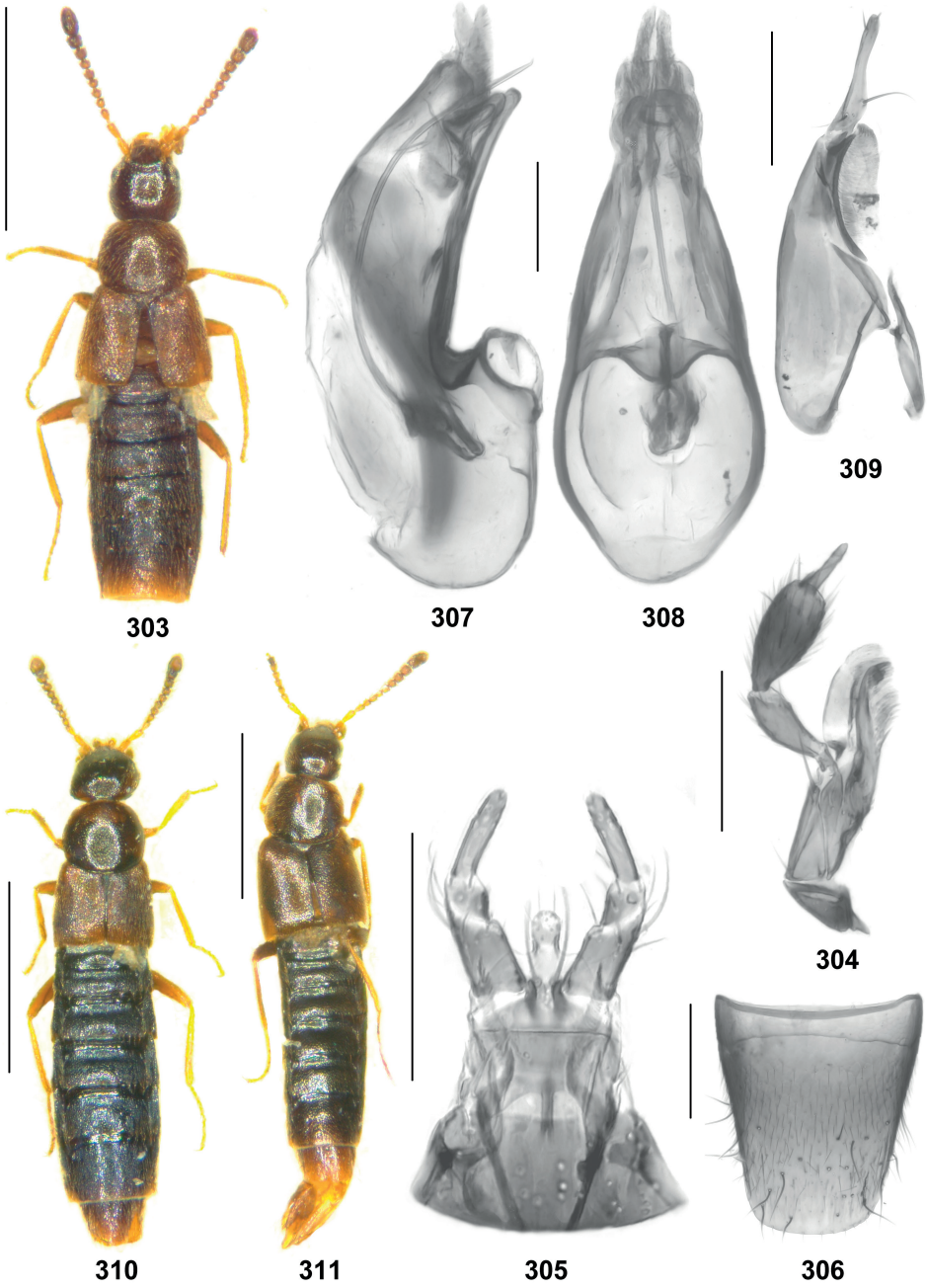
Figs 277–284: *Cousya luteipennis* (277–283) and "*Cousya*" *lobifera*, holotype (284): 277, 284) habitus; 278) forebody; 279) antenna; 280) abdomen; 281–282) median lobe of aedeagus in lateral and in ventral view; 283) paramere. Scale bars: 277, 284: 1.0 mm; 278, 280: 0.5 mm; 279, 283: 0.2 mm; 281–282: 0.1 mm.



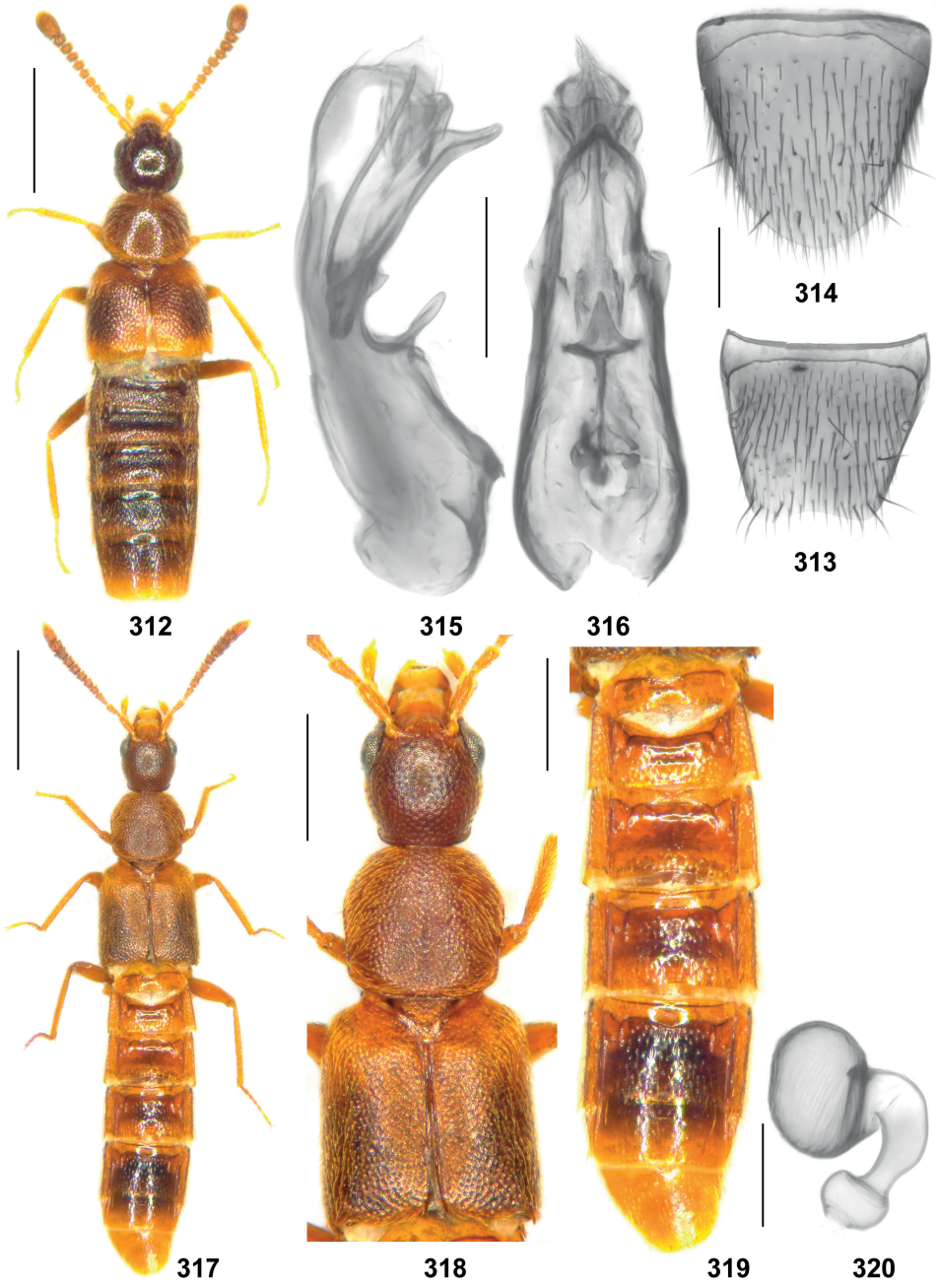
Figs 285–293: *Parocalea tenebricosa*: 285) habitus; 286) forebody; 287) antenna; 288) ventral aspect of head; 289) abdomen; 290) male sternite VIII; 291–292) median lobe of aedeagus in lateral and in ventral view; 293) paramere. Scale bars: 285: 1.0 mm; 286, 289: 0.5 mm; 287–288, 290: 0.2 mm; 291–293: 0.1 mm.



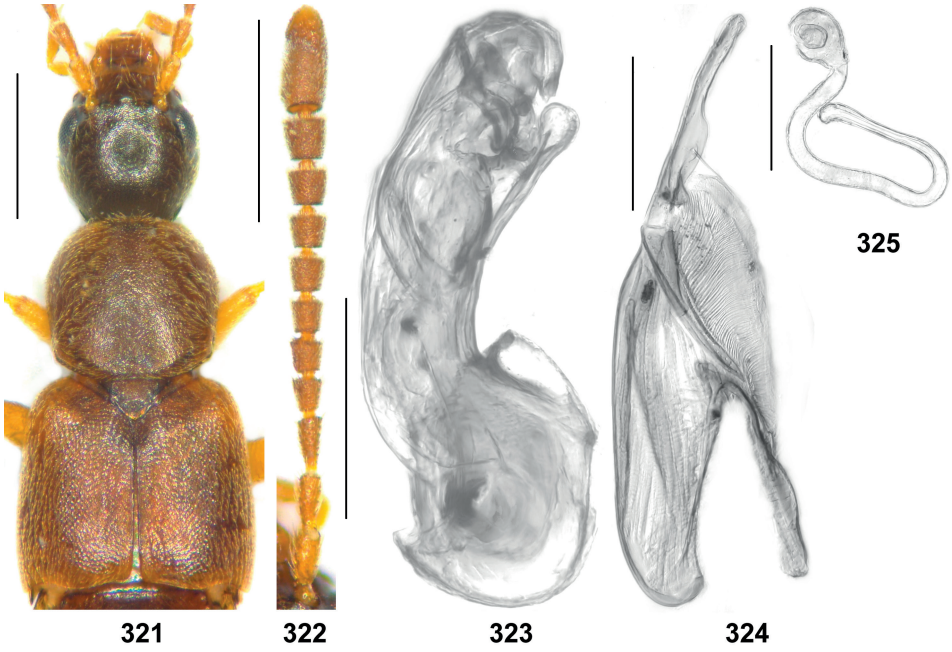
Figs 294–302: *Parocalea tenebricosa* (294–297), *P. baicalica* (298–301), and *Duplocyusa bucegiensis* (302): 294) labrum; 295, 302) labium; 296) maxilla; 297, 301) spermatheca; 298) habitus; 299–300) median lobe of aedeagus in lateral and in ventral view. Scale bars: 298: 1.0 mm; 299–300: 0.2 mm; 294–297, 301–302: 0.1 mm.



Figs 303–311: *Trichoglossina retunsa* (303–309), *T. xuemontis*, holotype (310), and *T. yunnanensis*, holotype (311): 303, 310–311) habitus; 304) maxilla; 305) labium; 306) male sternite VIII; 307–308) median lobe of aedeagus in lateral and in ventral view; 309) paramere. Scale bars: 303, 310–311: 1.0 mm; 306, 309: 0.2 mm; 304–305, 307–308: 0.1 mm.



Figs 312–320: *Trichoglossina tricuspidata* (312–316) and *Chinecousya globosa* (317–320): 312, 317) habitus; 313) male tergite VIII; 314) male sternite VIII; 315–316) median lobe of aedeagus in lateral and in ventral view; 318) forebody; 319) abdomen; 320) spermatheca. Scale bars: 317: 1.0 mm; 312, 318–319: 0.5 mm; 313–316, 320: 0.1 mm.



Figs 321–325: *Parocyusa fuliginosa* (321–324) and *P. japonica*, syntype (325): 321) forebody; 322) male antenna; 323) median lobe of aedeagus in lateral view; 324) paramere; 325) spermatheca. Scale bars: 321–322: 0.5 mm; 323–325: 0.2 mm.

This species is distinguished from the similar and syntopic *T. killinica* by the pubescence pattern of the pronotum (pubescence directed anteriad only in anterior fourth of midline), longer and more slender antennae with less transverse antenno-meres V–X, significantly larger eyes composed of approximately 25 ommatidia, and a spermatheca with a shorter proximal portion. Based on the shape of the spermatheca of the specimen collected at 1700 m, the possibility that this female is not conspecific with the remainder of the above material cannot be ruled out entirely.

Tectusa sp. 6

Material examined: GREECE: Pelopónnisos: 1 ♀, Arkadía, Óros Menalo, 37°39'06"N, 22°15'43"E, 23.IV.1999, 1670 m, fir forest with snow, leg. Zerche (SDEI).

This species is distinguished from the similar and syntopic *T. apanoica* by less minute eyes composed of approximately 20 ommatidia, a pale reddish-brown forebody, and a longer spermatheca.

Tectusa sp. 7

Material examined: GREECE: Pelopónnisos: 6 ♀♀, Arkadía, Óros Menalo, 37°39'06"N, 22°15'43"E, 23.IV.1999, 1670 m, fir forest with snow, leg. Zerche (SDEI); 1 ♀, Menalo, 1600 m, 26.IV.1999, leg. Wolf (MNB).

This species is distinguished from the similar *T.* sp. 4 by significantly larger eyes composed of > 25 ommatidia, darker, longer, and more slender antennae with the preapical antennomeres less than twice as broad as long, and by a longer spermatheca.

Tectusa sp. 8

Material examined: GREECE: Pelopónnisos: 2 ♀♀, Panahaiko, above Ano Kastritsi, 38°14'58"N, 21°51'32"E, 1500 m, 28.III.1997, leg. Assing (cAss); 3 ♀♀, Panahaiko, SE Ano Kastritsi, 38°14'51"N, 21°51'32"E, 1575 m, snowfields on grassland, 24.IV.1999, leg. Zerche (SDEI); 2 ♀♀, Panahaiko, above Ano Kastritsi, 38°14'46"N, 21°51'37"E, 1550 m, snowfield, 30.III.2000, leg. Zerche & Behne (SDEI); 1 ♀, Panahaiko, above Shuli, 38°11'00"N, 21°51'36"E, 1465 m, 29.III.2000, leg. Zerche & Behne (SDEI); 1 ♀, Panahaiko, NW Avriokambos, 38°11'13"N, 21°53'58"E, 1325 m, snowfields, 1.IV.2000, leg. Zerche & Behne (SDEI).

This species is characterized by dark colouration, a large head in relation to the pronotum, a weakly transverse and rather strongly convex (cross-section) pronotum with the pubescence of the midline directed anteriad only in the anterior fourth, eyes composed of 20–25 ommatidia, and a spermatheca with a rather short and stout proximal portion.

Tectusa sp. 9

Material examined: GREECE: Pelopónnisos: 1 ♀, Taygetos, Paleopanagia to Profitis Ilias, 36°57'10"N, 22°21'52"E, 1630 m, 20.IV.1998, leg. Behne & Zerche (SDEI); 8 ♀♀, Taygetos, Paleopanagia to Profitis Ilias, 36°57'03"N, 22°21'58"E, 1615 m, fir and pine forest, 20.IV.1999, leg. Behne & Zerche (SDEI); 1 ♀, Taygetos, Paleopanagia to Profitis Ilias, 36°56'59"N, 22°22'15"E, 1605 m, 20.IV.1999, leg. Zerche (SDEI); 5 ♀♀, Taygetos, W Pserovoúnia Mt., 37°06'32"N, 22°17'21"E, 1495 m, fir forest, 22.IV.1999, leg. Zerche (SDEI); 1 ♀, same data, but 37°06'38"N, 22°16'50"E, 1545 m, fir forest, 22.IV.1999, leg. Zerche & Behne (SDEI).

The habitus and colouration of this species are similar to those of *T.* sp. 8.

Species excluded from *Tectusa*

Zerche (2007, 2008) described eight *Tectusa* species from the Carpathians: *T. transsylvanica* Zerche, 2007, *T. bucegiensis* Zerche, 2007, *T. rosenauensis* Zerche, 2007, *T. ceahlauensis* Zerche, 2007, *T. rodnaensis* Zerche, 2007, *T. nigromontis* Zerche, 2007, *T. calimaniensis* Zerche, 2008, and *T. ciucasensis* Zerche, 2008. While Zerche (2007) only presents descriptions of six of the species without providing any arguments for assigning them to *Tectusa*, Zerche (2008: 167) at least implies that his main (and only) arguments may have been the visibility of hypomera of the pronotum in lateral view, as well as the reduced hind wings and the reduced length of the elytra. He states that he attributes them to *Tectusa*, although "ihr *Tectusa*-Habitus weniger ausgeprägt ist als bei vielen anderen *Tectusa*-Arten" and notes that the Carpathian species are more similar to *Oxypoda* than to *Tectusa montana* (a species now in *Parocyusa*). Additional arguments are wanting.

As can be inferred especially from the synapomorpically derived morphology of the aedeagus (ventral process with a conspicuous pair of slender processes at base), the Carpathian species undoubtedly form a monophyletic group. Such modifications of the aedeagus are unknown in *Tectusa*. To my knowledge, the only West Palaearctic

Oxypodini with a pronounced process or pair of pronounced processes at the base of the ventral process are species of the genus *Euryalea* MULSANT & REY, 1875, one species of *Ocalea* ERICHSON, 1837, two species of *Parocyusa* from North Spain and South Italy, *Oxypoda acuminata* (STEPHENS, 1832), and *Oxypoda uludaghensis* FAGEL, 1971, a species subsequently moved to *Tectusa* by ASSING (2011a). While the aedeagal modifications in *Euryalea*, *Parocyusa*, and *Oxypoda acuminata* are most unlikely to be homologous to those of the Carpathian "*Tectusa*", those in *O. uludaghensis* probably are, as is suggested by the fact that the latter species shares numerous additional similarities with the Carpathian lineage.

It is concluded, therefore, that the representatives of this lineage and *O. uludaghensis* represent adelphotaxa, both of which are assigned to a new genus mainly constituted by a similarly derived morphology of the aedeagus. In view of the differences between these lineages, however, they are attributed to separate subgenera.

***Duplocyusa* gen.n.**

Type species: *Oxypoda uludaghensis* FAGEL, 1971; present designation.

Etymology: The name is composed of the Latin adjective duplus (double) and the generic name *Ocyusa*. It alludes to the distinctive pair of processes at the base of the ventral process of the aedeagus and to the resemblance to *Parocyusa*. The gender is feminine.

Description: Habitus more or less slender. Whole body with very dense and very fine punctation, and with depressed pubescence.

Head (Fig. 257) of suborbicular shape, posteriorly with a carina, not constricted; ventral aspect (Fig. 258) laterally with a distinct carina and with broadly separated gular sutures. Antenna (Fig. 259) slender; antennomere XI not particularly elongate, with more or less pronounced sexual dimorphism. Labrum (Figs 261, 272) of transversely quadrangular shape; middle of anterior margin with broad projection. Maxilla (Figs 262, 273) with slender four-segmented palpi. Labium (Figs 263, 302) with three-segmented palpi and deeply bifid ligula. Mandibles (Fig. 258) unmodified, without distinct molar teeth.

Pronotum (Fig. 257) broadest anteriorly, along middle usually with a shallow sulcus; pubescence of midline directed posteriad; hypomera narrowly visible in lateral view; prosternum (Fig. 258) strongly transverse, with pronounced elevation in the middle. Posterior process of mesoventrite acute, reaching halfway between mesocoxae (Fig. 258). Tarsal formular 5,5,5; tarsi slender, metatarsomere I approximately as long as combined length of metatarsomeres II–IV.

Abdominal tergites III–V with, tergite VI without anterior impressions (Fig. 260).

♂: antennomere XI with more or less distinct median constriction; sternite VIII (Fig. 258) with strongly convex posterior margin (i. e., not angularly or acutely produced in the middle) with long thin marginal setae; aedeagus highly distinctive: median lobe robust, with strongly curved ventral process (lateral view), with a pair of conspicuous processes at base of ventral process, and with long crista apicalis (e. g., Fig. 265–266); paramere (Fig. 267) significantly longer than median lobe; apical lobe of paramere (Fig. 264) sinuate and slender, but barely one-third as long as basal portion, basally without angular projection.

♀: antennomere XI not constricted; posterior margin of sternite VIII (Figs 260–270, 274, 275) with stout marginal setae; spermatheca (Figs 271, 276) with long and slender proximal portion.

Comparative notes: *Duplocyusa* is distinguished from both *Parocyusa* and *Tectusa* particularly by the morphology of the aedeagus, above all by the presence of a conspicuous pair of processes at the base of the ventral process and the shape of the apical lobe of the paramere. The new genus additionally differs from them as follows:

from *Parocyusa* by a more deeply bifid ligula, a less slender labial palpomere III, a less transverse praementum, and a less slender antennomere XI;

from *Tectusa* by a larger and more robust body, more slender antennae, and a less pronounced apical cuticular invagination of the spermatheca, from many species also by a different pronotal pubescence pattern.

Subgenus *Duplocyusa*

Description: Habitus (Fig. 256) slender, somewhat resembling that of a micropterous *Parocyusa* species. Ligula very deeply bifid (Fig. 261). Male antennomere XI with median constriction. Processes at base of ventral process of aedeagus strongly curved and stout (Figs 265–267). Posterior margin of female sternite VIII (Figs 269–270) broadly and distinctly concave, and with conspicuously dense and strongly modified, stout marginal setae; spermatheca (Fig. 271) with more pronounced apical cuticular invagination.

Duplocyusa (*Duplocyusa*) *uludaghensis* (Fagel, 1971), comb.n.
(Figs 256–271)

Oxypoda uludaghensis Fagel, 1971: 135 ff.
Derocala uludaghensis: Smetana (2004).
Tectusa uludaghensis: Assing (2011a).
Tectusa uludaghensis: Schülke & Smetana (2015).

Material examined: TURKEY: Bursa: 1 ♂, Uludağ, 1900 m, 22.VII.1969, leg. Besuchet (SDEI); 2 ♀♀, Uludağ, 1900–2000 m, 12.V.1976, leg. Besuchet & Löbl (SDEI); for previously recorded material see Assing (2011a).

Redescription: Body length 4.0–4.5 mm; length of forebody 1.5–1.8 mm. Habitus as in Fig. 256. Colouration: forebody reddish to dark-brown with the head usually slightly darker; abdomen reddish with segment VI infuscate to blackish with the posterior margins of the anterior tergites and segments VIII–X reddish; legs dark-yellow; antennae brown to dark-brown with the basal antennomeres usually somewhat paler.

Head (Fig. 257) with very dense and very fine punctation, and with distinct microsculpture. Eyes of reduced size, approximately 0.3–0.4 times as long as postocular region in dorsal view. Antenna (Fig. 259) 1.2–1.4 mm long; antennomeres IV–X weakly transverse, much less than 1.5 times as broad as long.

Pronotum (Fig. 257) weakly transverse, approximately 1.1 times as broad as long and 1.20–1.25 times as broad as head, broadest in anterior half, moderately convex in cross-section; punctation and microsculpture similar to those of head.

Elytra (Fig. 257) short, 0.60–0.65 times as long as pronotum; punctation dense and fine, but significantly more distinct than that of head and pronotum; interstices with shallow microreticulation. Hind wings completely reduced.

Abdomen (Fig. 260) broadest at segment VI; tergites III–V with shallow anterior impressions; punctation very fine and dense; interstices with distinct microreticulation; posterior margin of tergite VII without palisade fringe.

♂: antennomere XI weakly constricted in the middle; sternite VIII shaped as in Fig. 268; median lobe of aedeagus (Figs 265–266) approximately 0.65 mm long and of highly distinctive shape; paramere (Figs 274, 267) approximately 1.3 mm long, with large basal portion.

♀: posterior margin of sternite VIII (Figs 269–270) broadly and distinctly concave in the middle and with dense and distinctly modified stout setae; spermatheca as in Fig. 271.

Comparative notes: This species is distinguished from the Carpathian lineage of the genus (see below) by a more slender habitus, the distinctive shape of the median lobe of the aedeagus (shapes of ventral process and of pair of process at the base of the ventral process), the conspicuous shape and chaetotaxy of the female sternite VIII, and by a more distinct apical cuticular invagination of the spermatheca.

Distribution and natural history: *Duplocyusa uludaghensis* is an endemic of Uludağı, a mountain in Bursa province, Northwest Turkey.

Carpocyusa subgen.n.

Type species: *Tectusa nigromontis* ZERCHE, 2007; present designation.

Etymology: The name is composed of Carp- (from Carpathian) and the generic name *Ocyusa*. It alludes to the fact that this lineage appears to be endemic to the Carpathians. The gender is feminine.

Description: Habitus robust, somewhat resembling that of a micropterous *Oxypoda* species. Ligula moderately deeply bifid. Male antennomere XI without distinct median constriction. Processes at base of ventral process of aedeagus weakly curved and slender, apically acute. Posterior margin of female sternite VIII convex to obtusely angled, and weakly modified and not particularly dense marginal setae; spermatheca with very indistinct apical cuticular invagination (Fig. 276). For illustrations of external and sexual characters see ZERCHE (2007, 2008).

Duplocyusa (*Carpocyusa*) *nigromontis* (ZERCHE, 2007), comb.n.

Tectusa nigromontis ZERCHE, 2007: 304 ff.

Material examined: UKRAINE: 1 ♀, NE-Carpathians, Hoverla, 1800 m, 23.V.2002, leg. Gontarenko (cAss); 1 ♂, 2 ♀♀, Hoverla, 24.VII.2004, leg. Gontarenko (cAss); 1 ♂, 1 ex., Hoverla, 1500 m, 27.VI.2015, leg. Gontarenko (cGon, cAss); 1 ♀, Chernogora range, Turkul mt., 1850 m, 17.VII.2012, leg. Gontarenko (cGon).

Duplocyusa (*Carpocyusa*) *bucegiensis* (Zerche, 2007), comb.n.
(Figs 272–276, 302)

Tectusa bucegiensis Zerche, 2007: 294 ff.

Type material examined: Paratypes: 2 ♀♀: "Rum. S.-Karpaten, Bucegi-Geb., Omul, 2300 m, 19.VI.1987 / Schneefeldrand, leg. Zerche & Behne / Paratypus *Tectusa bucegiensis* Zerche" (cAss).

Additional material examined: ROMANIA: 1 ♀, same data as paratypes, but 2100 m (cAss).

The mouthparts and the female sexual characters are illustrated in Figs 272–276, 302.

Other species of *Duplocyusa*

In addition to the above species, the following taxa are moved from *Tectusa* to *Duplocyusa*, subgenus *Carpocyusa*:

Duplocyusa (*Carpocyusa*) *transsylvanica* (Zerche, 2007), comb.n.; *Duplocyusa* (*Carpocyusa*) *rosenauensis* (Zerche, 2007), comb.n.; *Duplocyusa* (*Carpocyusa*) *ceahlauensis* (Zerche, 2007); comb.n.; *Duplocyusa* (*Carpocyusa*) *rodnaensis* (Zerche, 2007), comb.n.; *Duplocyusa* (*Carpocyusa*) calimaniensis (Zerche, 2008), comb.n., Duplocyusa (Carpocyusa) *iucasensis* (Zerche, 2008), comb.n.

For illustrations and distribution maps of these species see Zerche (2007, 2008).

Oxypoda besucheti Focarile, 1982
(Figs 250–253)

Oxypoda besucheti Focarile, 1982: 549.
Tectusa orobiana Assing, 2012: 988.
Tectusa besucheti: Assing (2016a).

Comment: Originally assigned to *Oxypoda* by Focarile (1982), *O. besucheti* was subsequently moved to *Tectusa* by Assing (2016a), based on the previously broad concept of *Tectusa*. A re-evaluation of external characters (see figures in Assing 2016a), the mouthparts (Figs 250–252), the morphology of the median lobe of the aedeagus (see figures in Assing 2012, 2016a), and the paramere (Fig. 252), however, revealed that this species does not belong to *Tectusa* (nor *Parocyusa*). Since the primary sexual characters are similar to those of *Oxypoda*, it is therefore transferred back to the genus it was originally assigned to.

Appendix: Additional taxonomic changes in Oxypodina

Genus *Eurylophus* J. Sahlberg, 1876, revalidated

Eurylophus J. Sahlberg, 1876: 117 f. (type species *Eurylophus grandiceps* J. Sahlberg, 1876).
Drepasiagonusa Pace, 2012: 131 (type species *Drepasiagonusa smetanai* Pace, 1912); **syn.n.**

Comment: Sahlberg (1876) described the genus *Eurylophus* to include only the newly described *E. grandiceps*, the type species by monotypy. *Eurylophus* was subsequently treated as a junior synonym of *Mniusa* Mulsant & Rey, 1875 (Bernhauer 1902).

When describing the genus *Drepasiagonusa*, which originally included only *D. smetanai* PACE, 2012 from China, the type species by monotypy, PACE (2012) compared the new taxon with *Beijingusa* PACE, 1999, but not with *Mniusa*.

ASSING (2018b) recently reviewed *Drepasiagonusa* and described four additional species from China and East Siberia.

A comparison of material of *Eurylophus grandiceps* and *Drepasiogonusa smetanai* revealed that they are undoubtedly congeneric, resulting in the synonymy of *Drepasiogonusa*. *Eurylophus grandiceps* and the species previously in *Drepasiogonusa* share with *Mniusa incrassata* (MULSANT & REY, 1852) a short bifid ligula (see ASSING 2018b: figure 12), but are distinguished by numerous other characters such as the shape of the maxillary palpi (preapical palpomere stout in *Mniusa* and slender in *Eurylophus*), the shape of the antennae (apically incrassate in *Mniusa* and conspicuously filiform in *Eurylophus*), the shape of the mandibles (unmodified in *Mniusa* and conspicuously long, slender, and acute in *Eurylophus*), and the shape of the pronotum (strongly transverse and much broader than the head in *Mniusa*, moderately transverse and small in relation to the head in *Eurylophus*). *Mniusa* and *Eurylophus* are undoubtedly closely related. Nevertheless, in view of the number and nature of the distinguishing characters, these taxa should be considered distinct genera.

Eurylophus grandiceps J. SAHLBERG, 1876, comb.n.

Eurylophus grandiceps J. SAHLBERG, 1876: 118.
Drepasiagonusa feldmanni ASSING, 2018b: 86 f; **syn.n.**

Comment: A re-examination of the holotype of *Drepasiagonusa feldmanni* revealed that the aedeagus differs slightly from that of a male from East Siberia (slightly larger; ventral process of slightly different shape), but otherwise no characters were found suggesting that they should represent distinct species. Hence the synonymy proposed above.

The revalidation of *Eurylophus* and the proposed synonymy of *Drepasiagonusa* result in the following additional new combinations:

Eurylophus smetanai (PACE, 2012), comb.n.; *Eurylophus procerus* (ASSING, 2018), comb.n.; *Eurylophus tibeticus* (ASSING, 2018), comb.n.; *Eurylophus angulatus* (ASSING, 2018), comb.n.

Eurylophus angulatus (ASSING, 2018)

Material examined: CHINA: Sichuan: 1 ♂, Ganzi Tibet. Aut. Pref., Kangding Co., Daxue Shan, 15 km NW Kangding, Mu Ge Cuo, above lake, 30°09'N, 101°52'E, 3700 m, 27.VI.1999, leg. Schülke (MNB).

This species was previously known from Qinghai and Gansu provinces (ASSING 2018b). The above male represents the first record from Sichuan.

Genus *Cousya* MULSANT & REY, 1875

According to a recent revision (ASSING 2018a), *Cousya* was previously represented in the West Palaeartic region including Middle Asia by 19 species. Species currently assigned to the genus and recorded from the East Palaearctic region have not been revised.

"*Cousya*" *lobifera* Pace, 2015
(Fig. 284)

Type material: Holotype ♀: "NEPAL, Prov. Koshi, distr. Sankhuwasabha, Arun-Valley, Num, NE, 27°33,18'N, 87°17,58"E, 850 m NN, 30.XI.1998, leg. M. Hartmann / Holotypus *Cousya lobifera* mihi, det. R. Pace 2015 / *Cousya lobifera* n. sp., det. R. Pace 2015 / '*Cousya*' *lobifera* Pace, det. V. Assing 2015" (NME).

Comment: The original description is based on a unique female from "Nepal, Prov. Koshi, distr. Sankhuwasabhan, Arun Valley, Num NE" (Pace 2015). This species was erroneously assigned to *Cousya*. It most likely belongs to an undescribed genus. The holotype is illustrated in Fig. 284.

Cousya luteipennis sp.n.
(Figs 277–283)

Type material: Holotype ♂: "UDSSR: Usbekistan, Tienschan-Gebirge, Großer Tschimgan, ca. 1500 m, 12.V.1989, leg. U. Heinig / Schotterbett, am Ufer geschwemmt / Holotypus ♂ *Cousya luteipennis* sp. n., det. V. Assing 2019" (cAss).

Etymology: The specific epithet (Latin, adjective: with yellow wings) alludes to the colouration of the elytra.

Description: Habitus somewhat resembling that of *Tomoglossa* Kraatz, 1856; body length 3.2 mm; length of forebody 1.5 mm. Habitus as in Fig. 277. Colouration: head dark-brown; pronotum castaneous; elytra yellow with the anterior margins slightly and diffusely darker; abdomen dark-brown with the posterior margins of tergites III–VI, the posterior half of tergite VII, and segments VIII–X reddish; legs yellow; antennae dark-reddish.

Head (Fig. 278) 1.1 times as long as broad, small in relation to pronotum; punctation dense and fine; interstices with distinct microreticulation. Eyes approximately as long as postocular region in dorsal view. Antenna (Fig. 279) 0.95 mm long; antennomeres IV–X distinctly transverse, of gradually increasing width, X nearly twice as broad as long, and XI slightly longer than the combined length of IX and X.

Pronotum (Fig. 278) approximately 1.1 times as broad as long and 1.2 times as broad as head, broadest approximately in the middle; hypomera narrowly visible in lateral view; punctation and microsculpture similar to those of head; midline with pubescence directed posteriad along its entire length.

Elytra (Fig. 278) approximately as long as pronotum; punctation coarser than that of head and pronotum. Hind wings probably present (not examined). Tarsi slender; metatarsomere I approximately as long as the combined length of metatarsomeres II and III.

Abdomen: tergites III–V with pronounced, tergite VI with shallow anterior impressions with coarse and dense punctation; punctation of remainder of tergal surfaces rather dense and distinct; interstices without microsculpture and glossy; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII smoothly convex.

♂: median lobe of aedeagus approximately 0.4 mm long and shaped as in Figs 281–282, with large crista apicalis; paramere (Fig. 283) 0.65 mm long; apical lobe of moderate length, approximately one-third as long as basal portion.

♀: unknown.

Comparative notes: *Cousya luteipennis* is characterized particularly by its colouration, a parallel habitus somewhat resembling that of *Tomoglossa*, a small head (in relation to the pronotum), rather coarse and dense punctation and the absence of microsculpture on the abdomen, the presence of a shallow anterior impression on tergite VI, and the shape of the aedeagus. For descriptions and illustrations of other *Cousya* species see ASSING (2018a).

Distribution and natural history: The type locality is situated in the Greater Chimgan in the western Tian Shan range, Uzbekistan. The holotype was floated from gravel on a stream bank at an altitude of 1500 m.

Genus *Parocalea* BERNHAUER, 1902

Parocalea previously included three species, the type species *P. baicalica* (EPPELSHEIM, 1893) from East Siberia and two species distributed in Canada and Alaska, *P. nearctica* LOHSE, 1990 and *P. pseudobaicalica* LOHSE, 1990.

Parocalea baicalica (EPPELSHEIM, 1893)

(Figs 298–301)

Material examined: MONGOLIA: 1 ♂, "Mongolia bor.", leg. Reitter (NHMW). **RUSSIA:** 1 ♀, "Transbaikalien", leg. Leder (c Ass).

This species was previously known only from East Siberia (SCHÜLKE & SMETANA 2015). The above male represents the first record from Mongolia. The habitus and the primary sexual characters are illustrated in Figs 298–301.

Parocalea tenebricosa sp.n.

(Figs 285–297)

Type material: Holotype ♂: "Rußland: Sibiria or. (S29), Chabarowskij Kr., Badshalkij Geb., 1250–1600 m, Quelle des Omot-Makit, 14.–18.VII.1997, Sundukow / Holotypus ♂ *Parocalea tenebricosa* sp. n., det. V. Assing 2019" (MNB). **Paratypes:** 5 exs.: same data as holotype (MNB, cAss); 6 exs: same data, but "850 m, Mündg. des Omot-Makit, 12.VII.1997" (MNB, cAss); 1 ex.: "Russia or.: Khabarovsky Kr., Badzhal ridge, lake Omot, 1165 m, taiga, 134°16'34"E, 50°32'35"N, 13.–20.VII.1999, leg. J. Sundukov" (MNB).

Etymology: The specific epithet (Latin, adjective: dark) alludes to the dark colouration of the body.

Description: Body length 3.0–3.8 mm; length of forebody 1.5–1.7 mm. Habitus as in Fig. 285. Colouration: body blackish with the elytra sometimes dark-brown; legs brown to dark-brown with paler tarsi; antennae brown to dark-brown with the basal 2–3 antennomeres more or less distinctly paler; maxillary palpi pale-reddish with the apical palpomere yellow.

Head (Fig. 286) weakly oblong; punctation moderately dense and fine, barely visible in the pronounced microreticulation. Eyes approximately as long as postocular region in dorsal view. Antenna (Fig. 287) approximately 1.0 mm long, of similar morphology as in species of *Calodera*, with very indistinct sexual dimorphism; antennomere XI with weakly

indicated median constriction; antennomeres IV weakly transverse, V–X of gradually increasing width and slightly increasingly transverse, X approximately 1.5 times as broad as long (or nearly so), and XI barely as long as the combined length of IX and X. Labrum, maxilla, and labium as in Figs 294–296. Ventral aspect of head as in Fig. 288.

Pronotum (Fig. 286) weakly transverse, 1.05–1.10 times as broad as long and approximately 1.2 times as broad as head, broadest in anterior half, weakly convex in cross-section; punctation and microsculpture similar to those of head; pubescence whitish and depressed, in midline directed anteriad in anterior two-thirds and posteriad in posterior third.

Elytra (Fig. 286) approximately 1.1 times as long as pronotum; punctation dense and fine, but significantly more distinct than that of head and pronotum; interstices with microreticulation. Hind wings present. Metatarsomere I longer than the combined length of metatarsomeres II and III.

Abdomen (Fig. 289) broadest at segment VI; tergites III–VI with deep coarsely and densely punctate anterior impressions; punctation rather dense and more distinct than that of elytra; interstices with microreticulation; posterior margin of tergite VII with palisade fringe; tergite VIII posteriorly with a median pair of long setae.

♂: antennomere XI indistinctly longer than in female; sternite VIII (Fig. 290) distinctly transverse, posterior margin distinctly pointed in the middle; median lobe of aedeagus (Figs 291–292) approximately 0.45 mm long and slender, with pronounced crista apicalis and crista proximalis; internal sac with dark membranous structures apically, without sclerotized spines; paramere (Fig. 293) approximately 0.65 mm long, with rather stout and moderately long apical lobe without distinct basal projection; velum strongly developed, nearly extending to apex of apical lobe.

♀: posterior margin of sternite VIII weakly angled in the middle; spermatheca (Fig. 297) with somewhat coiled proximal portion, distally without distinct cuticular invagination.

Comparative notes: The new species is distinguished from *P. baicalica*, the only other *Parocalea* species known from the Palaearctic region, by numerous characters such as smaller body size, a much more slender and more depressed habitus and paler colouration (*P. baicalica*: pronotum reddish, legs and antennae yellow), significantly longer elytra, less dense punctation of the abdomen, particularly of the anterior impressions of tergites III–VI, a significantly smaller aedeagus (*P. baicalica*: median lobe > 0.6 mm long) of different shape, and a smaller spermatheca with a longer, thinner, and more strongly coiled proximal portion. For illustrations of *P. baicalica* see Figs 298–301. The Nearctic *P. nearctica* and *P. pseudobaicalica* are figured by Lohse et al. (1990).

Distribution and natural history: The specimens were collected in three geographically close localities in the Bureja range, Khabarovskiy Kray, in the Russian Far East. The labels suggest that they were found near a river and a lake.

Genus *Trichoglossina* Pace, 1987

Trichoglossina previously included 39 species, 14 from Nepal and 25 from China (Assing 2018c). The new species described and the new combination proposed below raise the figures for total species number and species recorded from China to 42 and 27, respectively. Moreover, the genus is reported from Taiwan for the first time.

Trichoglossina taiwafimbriata (PACE, 2010), comb.n.

Oxypoda (*Podoxya*) *taiwafimbriata* PACE, 2010: 38.

Comment: The original description of *Oxypoda taiwafimbriata* is based on a unique female from "Taiwan, Taichung Hsien, Anmashan" (PACE 2010). It can be inferred from the illustrations of the habitus, the spermatheca, and particularly from the chaeotaxy of the female sternite VIII (unique among Oxypodina) (PACE 2010: figures 80–82) that this species undoubtedly belongs to *Trichoglossina*, not to *Oxypoda*.

Trichoglossina retunsa sp.n.
(Fig. 303–309)

Type material: Holotype ♂: "CHINA: N-Yunnan [03-07], Zhongdian Co., 55 km N Zhongdian, 28°19.8'N, 99°45.7'E, 3800 m, primary mixed forest, Rhodod., dead wood, mushrooms, moss, 18.VIII.2003, M. Schülke / Holotypus ♂ *Trichoglossina retunsa* sp. n., det. V. Assing 2019" (MNB).

Etymology: The specific epithet (Latin, adjective: blunt) alludes to the apically convex ventral process of the aedeagus (ventral view).

Description: Small species; body length 2.2 mm; length of forebody 1.1 mm. Habitus as in Fig. 303. Colouration: head and abdomen blackish; pronotum blackish-brown; elytra dark-brown; legs dark-yellow; antennae with antennomeres I–II dark-yellow, gradually darkened towards apex, antennomeres X–XI blackish.

Head (Fig. 304) weakly oblong; punctation moderately dense and fine; interstices with shallow microreticulation and with subdued shine. Eyes shorter than postocular region in dorsal view. Antenna 0.75 mm long; antennomeres IV indistinctly transverse, V–X of gradually increasing width and transverse, X approximately 1.5 times as broad as long, and XI slightly longer than the combined length of IX and X. Maxilla and labium as in Figs 304–305.

Pronotum (Fig. 304) small in relation to head, 1.15 times as broad as long and approximately 1.2 times as broad as head, broadest approximately in the middle; punctation and microsculpture similar to those of head.

Elytra (Fig. 304) approximately as long as pronotum; punctation dense and fine; interstices with shallow microreticulation. Hind wings present, but of reduced length. Metatarsus slender, nearly as long as metatibia; metatarsomere I slightly longer than the combined length of metatarsomeres II and III.

Abdomen broad in relation to forebody; punctation fine and very dense; interstices with microreticulation; posterior margin of tergite VII with palisade fringe.

♂: posterior margin of tergite VIII with truncate projection in the middle; sternite VIII (Fig. 306) much longer and more slender than tergite VIII, posteriorly nearly truncate; median lobe of aedeagus (Figs 307–308) rather large in relation to body size, 0.47 mm long; ventral process slender and straight in lateral view, apically convex in ventral view; paramere approximately 0.65 mm long and shaped as in Fig. 309.

♀: unknown.

Comparative notes: This species is distinguished from most representatives of the genus recorded from China by its small size and dark colouration alone. It differs from

the similarly small, similarly dark-coloured, and geographically close *T. xuemontis* Pace, 2012 (male unknown) and *T. yunnanensis* Pace, 2012, both of which have their type localities in Zhongdian County, as follows:

from *T. xuemontis* by the presence of microsculpture on the head, an indistinctly transverse antennomere IV, and by distinct punctation on the head and pronotum;

from *T. yunnanensis* by the presence of microsculpture on the head and by the shape of the aedeagus (*T. yunnanensis*: ventral process curved in lateral view and apically acute in ventral view; crista apicalis less strongly produced and of different shape; internal flagellum shorter).

For illustrations of *T. xuemontis*, *T. yunnanensis*, and other species recorded from China see Figs 310–311, Pace (1999, 2012), and Assing (2018c).

Distribution and natural history: The type locality is situated in Northwest Yunnan, China. The holotype was sifted from moss and litter in a primary mixed forest at an altitude of 3800 m.

Trichoglossina tricuspidata sp.n.
(Figs 312–316)

Type material: Holotype ♂: "CHINA: Yunnan [CH07-04], Dali Bai Auton. Pref., Diancang Shan W Dali, 25°41'47"N, 100°06'32"E, 3016 m, moist escarpment, litter sifted, 28.V.2007, legt. A. Pütz / Holotypus ♂ *Trichoglossina tricuspidata* sp. n., det. V. Assing 2019" (cPüt). **Paratypes:** 2 ♂♂: same data as holotype (cPüt, cAss).

Etymology: The specific epithet (Latin, adjective: with three tips) alludes to the spinose processes of the median lobe of the aedeagus.

Description: Body length 2.1–2.3 mm; length of forebody 0.9–1.0 mm. Habitus as in Fig. 312. Colouration: head blackish; pronotum yellowish-red to reddish-brown; elytra reddish-yellow with an extensive, but weakly delimited dark lateral spot; abdomen blackish-brown with the posterior margins of tergites III–VI, the posterior portion of tergite VII, and all of segments VIII–X yellow; legs pale-brown with yellowish tarsi; antennae brown with the basal 2–4 antennomeres yellow.

Head approximately as broad as long; punctation moderately dense and fine; interstices with practically obsolete microsculpture. Eyes distinctly convex, longer than postocular region. Antenna approximately 0.65 mm long; antennomere IV distinctly transverse; antennomeres V–X of gradually increasing width and increasingly transverse, X approximately twice as broad as long, and XI large, broader than preapical antennomeres and slightly longer than the combined length of antennomeres VIII–X.

Pronotum small in relation to head and elytra, 1.15–1.20 times as broad as long and approximately 1.25 times as broad as head; punctation dense, more distinct than that of head; pubescence long and yellow; interstices without distinct microreticulation.

Elytra approximately as long as pronotum; punctation dense and coarse; interstices without microsculpture. Hind wings fully developed. Metatarsomere I short, barely as long as the combined length of II and III.

Abdomen: tergites III–V with shallow anterior impressions; punctation coarse and very dense, only slightly less dense on tergite VII than on anterior tergites; interstices without distinct microsculpture; posterior margin of tergite VII with palisade fringe.

♂: posterior margin of tergite VIII concave (Fig. 313); sternite VIII (Fig. 314) longer than tergite VIII, posterior margin produced; median lobe of aedeagus (Figs 315–316) 0.3 mm long; ventral process subapically strongly curved and apically acute in lateral view, basally with a pair of short spine-shaped lateral processes; crista apicalis long and narrow, apically with a conspicuous process; paramere not distinctive.

♀: unknown.

Comparative notes: *Trichoglossina tricuspidata* is characterized particularly by its small size, its distinctive colouration, and above all by the conspicuous morphology of the aedeagus. It is distinguished from the geographically close *T. yunnanensis* PACE, 2012 and *T. xuemontis* PACE, 2012 (holotypes of both species examined), both described from Xue Shan (Yunnan), as follows:

from *T. yunnanensis* by smaller size, different colouration (*T. yunnanensis*: body blackish except fo the paler apex of the abdomen), much more incrassate antennae (*T. yunnanensis*: antennomeres IV–X weakly transverse), a much smaller pronotum (in relation to the head), coarser punctation particularly of the elytra and the abdomen, a more glossy body due to the absence of microsculpture on the pronotum, elytra, and abdomen, shorter elytra, much shorter tarsi, and a smaller aedeagus of different shape;

from *T. xuemontis* (male unknown) by smaller body size, a more coarsely punctate and more shiny body (*T. xuemontis*: whole body with microsculpture), different colouration (*T. xuemontis*: body blackish), a smaller pronotum in relation to the head and elytra, shorter tarsi, and shorter elytra.

For illustrations of *T. xuemontis*, *T. yunnanensis*, and other species recorded from China see Figs 310–311, PACE (1999, 2012), and ASSING (2018c).

Distribution and natural history: The type locality is situated in the Diancang Shan near Dali (China: Northwest Yunnan). The specimens were sifted from moist litter at an altitude of approximately 3020 m.

Genus *Chinecousya* ASSING, 2006

This genus was previously represented by a single species, *Chinecousya procera* ASSING, 2006, described based on a unique specimen from Yunnan, China. Aleocharinae material from China forwarded to me by Michael Schülke included a second specimen of *Chinecousya*. A comparison with the holotype of *C. procera* revealed that it belonged to an undescribed species. The extreme rarity of material of this genus suggests that the species of this genus live in a cryptic habitat and are found only by chance.

Chinecousya globosa sp.n.

(Figs 317–320)

Type material: Holotype ♀: "CHINA: Yunnan, Baoshan Pref., 10 km SE Kambaiti pass, 45 km NW Tengchong, 1700–1800 m, 25°21'13–29"N, 98°13'39–54"E, primary forest, litter and mushrooms sifted, 29.VIII.2009, leg. M. Schülke [CH09-15] / Holotypus ♀ *Chinecousya globosa* sp. n., det. V. Assing 2019" (MNB).

Etymology: The specific epithet (Latin, adjective) alludes to the shape of the distal portion of the spermatheca.

Description: Body length 5.0 mm; length of forebody 2.2 mm. Habitus slender (Fig. 317). Colouration: head brown with yellowish-brown anterior portion; pronotum castaneous; elytra yellowish with the postero-lateral portions extensively infuscate; abdomen reddish with the middle of tergite V, most of tergite VI, and the anterior three-fourths of tergite VII blackish, and with segments VIII–X dark-yellow; legs pale-reddish; antennae dark-reddish with antennomeres I–III and XI paler red; maxillary palpi reddish-yellow with the apical palpomere pale-yellow.

Head (Fig. 318) distinctly oblong, 1.18 times as long as broad; punctation rather dense and distinct; interstices with pronounced microreticulation and nearly matt. Eyes distinctly convex, nearly as long as postocular region in dorsal view. Antenna 1.3 mm long; antennomeres IV–X of gradually increasing width and transverse, X approximately 1.5 times as broad as long, and XI slightly shorter than the combined length of IX and X.

Pronotum (Fig. 318) approximately as broad as long and 1.18 times as broad as head, broadest in anterior half; punctation denser and less defined than that of head; microreticulation distinct.

Elytra (Fig. 318) 1.1 times as long as pronotum; punctation very dense and distinct; interstices with pronounced microreticulation. Hind wings present. Metatarsomere I slightly longer than the combined length of metatarsomeres II and III.

Abdomen (Fig. 319) with segments III–VI of subequal width; tergites III–V with shallow anterior impressions; punctation rather coarse and dense, absent in anterior impressions of tergites III–V, and sparse on tergites VII–VIII; tergites III–VI without, tergites VII–VIII with shallow microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex.

♂: unknown.

♀: posterior margin of sternite VIII broadly convex; spermatheca shaped as in Fig. 320.

Comparative notes: This species is distinguished from *C. procera* by numerous characters, particularly a more slender habitus and slightly smaller size, the colouration (*C. procera*: pronotum bright-red and strongly contrasting with the blackish head; elytra uniformly dark; middle of abdominal tergites III–IV blackish), finer and less distinct punctation of the forebody, relatively longer antennae with less transverse preapical antennomeres and a longer antennomere XI, much coarser, denser, and more extensive punctation of the abdomen, and a spermatheca of different shape. For illustrations of *C. procera* see Assing (2006).

Distribution and natural history: The type locality is situated in Northwest Yunnan, China, close to the border with Myanmar. The holotype was sifted from litter in a primary forest at an altitude of 1700–1800 m.

Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material under their care, in particular to Manfred Kahlen (TLMF) for the generous gift of material of *Parocyusa montana*. Roger Booth, former curator at BMNH, clarified the identity of the type material of *Aleochara attenuata* in the Stephens collection. Benedikt Feldmann (Münster) proof-read the manuscript.

References

ASSING, V. 1996a: The first species of *Leptusina* BERNHAUER from the Iberian Peninsula: *Leptusina schuelkei* spec.n. (Insecta: Coleoptera: Staphylinidae: Aleocharinae). – Reichenbachia 31: 163–165.

ASSING, V. 1996b: Die *Leptusina*-Arten Italiens (Insecta: Coleoptera: Staphylinidae: Aleocharinae). – Reichenbachia 31: 167–169.

ASSING, V. 1996c: A revision of the European species of *Calodera* MANNERHEIM (Coleoptera, Staphylinidae, Aleocharinae). – Beiträge zur Entomologie, Berlin 46 (1): 3–24.

ASSING, V. 1998: A revision of the Palaearctic species of *Zoosetha* MULSANT & REY and *Poromniusa* GANGLBAUER (Coleoptera, Staphylinidae, Aleocharinae). – Deutsche Entomologische Zeitschrift 45 (1): 73–94.

ASSING, V. 2002: New species of Staphylinidae from Greece (Insecta: Coleoptera). – Reichenbachia 34: 277–284.

ASSING, V. 2003a: A revision of *Calodera* MANNERHEIM. III. A new species from Russia and a key to the Palaearctic species of the genus (Coleoptera: Staphylinidae: Aleocharinae). – Zootaxa 311: 1–7.

ASSING, V. 2003b: The first species of *Tectusa* BERNHAUER from Portugal (Insecta: Coleoptera: Staphylinidae: Aleocharinae). – Entomologische Abhandlungen 60: 129–132.

ASSING, V. 2004a: New species and records of Staphylinidae from Greece (Insecta: Coleoptera). – Linzer Biologische Beiträge 36 (2): 593–613.

ASSING, V. 2004b: New species and records of Staphylinidae from Turkey III (Insecta: Coleoptera). – Linzer Biologische Beiträge 36 (2): 669–733.

ASSING, V. 2006: A new genus and new species of Aleocharinae from China (Insecta: Coleoptera: Staphylinidae). – Entomological Problems 36 (1): 21–30.

ASSING, V. 2007: New species and additional records of Paederinae and Aleocharinae from Iran (Coleoptera, Staphylinidae). – Deutsche Entomologische Zeitschrift 54 (2): 179–193.

ASSING, V. 2011a: On the Staphylinidae of Turkey VIII. Eleven new species, two new synonymies, a new combination, and additional records (Coleoptera: Staphylinidae). – Koleopterologische Rundschau 81: 179–227.

ASSING, V. 2011b: On the Staphylinidae (Coleoptera) of Iran. II. New species and additional records, with special reference to the Paederinae, Xantholinini, and Aleocharinae. – Stuttgarter Beiträge zur Naturkunde Serie A, Neue Serie 4: 137–183.

ASSING, V. 2012: A new species of *Tectusa* from the Alpi Orobie, Italy (Coleoptera: Staphylinidae: Aleocharinae). – Linzer Biologische Beiträge 44 (2): 987–991.

ASSING, V. 2014a: On the Staphylinidae of Turkey X. Two new species and additional records (Insecta: Coleoptera). – Linzer Biologische Beiträge 46 (2): 1133–1146.

ASSING, V. 2014b: On the Staphylinidae of Israel II, with a revision of some species of *Dinusa* SAULCY (Coleoptera: Staphylinidae: Aleocharinae). – Linzer Biologische Beiträge 46 (2): 1179–1210.

ASSING, V. 2016a: On *Oxypoda besucheti* FOCARILE (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Linzer Biologische Beiträge 48 (1): 211–220.

ASSING, V. 2016b: On the Staphylinidae of the Greek island Lesbos II, with supplementary notes on the fauna of Samos and Chios (Coleoptera: Staphylinidae). – Koleopterologische Rundschau 86: 103–138.

ASSING, V. 2017a: On the Staphylinidae of the Greek island Kos, with an appendix on Carabidae and additional records from other islands (Insecta: Coleoptera). – Linzer Biologische Beiträge 49 (1): 191–205.

Assing, V. 2017b: On the Staphylinidae of the Greek island Ikaría, with supplementary notes on the fauna of Samos (Coleoptera: Staphylinidae). – Koleopterologische Rundschau 87: 89–116.

Assing, V. 2018a: Revision of the *Cousya* species of the West Palaearctic Region (Coleoptera: Staphylinidae: Aleocharinae). – Integrative Systematics 1: 79–127.

Assing, V. 2018b: New species and additional records of *Cephalocousya* and *Drepasiagonusa* from China and Russia (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Linzer Biologische Beiträge 50 (1): 75–88.

Assing, V. 2018c: Six new species of *Trichoglossina* from China (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Linzer Biologische Beiträge 50 (1): 89–109.

Assing, V. 2019a: A revision of the species of "*Blepharhymenus*" of the Palaearctic and Oriental regions (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Koleopterologische Rundschau 89: 29–106.

Assing, V. 2019b: On the Staphylinidae of the Greek island Samothraki (Insecta: Coleoptera). – Linzer Biologische Beiträge 51 (2): 881–906.

Assing, V. & Feldmann, B. 2012: On the Staphylinidae of Israel (Insecta: Coleoptera). – Linzer Biologische Beiträge 44 (1): 351–363.

Assing, V. & Schülke, M. 2001: Supplemente zur mitteleuropäischen Staphylinidenfauna (Coleoptera: Staphylinidae). II. – Entomologische Blätter 97 (2–3): 121–176.

Assing, V. & Schülke, M. 2006: Systematic catalogue of the entomofauna of the Madeira archipelago and Selvagens Islands. Staphylinoidea, Staphylinidae (Coleoptera). Vol. II, Part 2. – Boletim do Museu Municipal do Funchal, Sup. 11: 5–167.

Assing, V. & Schülke, M. 2007: Supplemente zur mitteleuropäischen Staphylinidenfauna (Coleoptera, Staphylinidae). III. Entomologische Blätter 102 (1–3) (2006): 1–78.

Assing, V. & Schülke, M. 2019: The Staphylinidae of Armenia and Nagorno-Karabakh (Coleoptera). – Contributions to Entomology 69 (1): 91–173.

Assing, V. & Vogel, J. 2019: The mother of synonyms: on the *Meotica* species of the Palaearctic Region (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Linzer Biologische Beiträge 51 (2): 731–772.

Assing, V. & Wunderle, P. 1997: A revision of the species of *Euryalea* Mulsant & Rey, *Pseudocalea* Luze and *Ocyota* Sharp (Coleoptera, Staphylinidae, Aleocharinae). – Entomologische Blätter 93 (2–3): 93–126.

Assing, V. & Wunderle, P. 2001a: On the Staphylinidae of Cyprus (Coleoptera). – Entomologische Zeitschrift 111 (2): 34–41.

Assing, V. & Wunderle, P. 2001b: On the Staphylinidae of Greece. II. New species and new records from central and northern Greece (Insecta: Coleoptera). – Linzer Biologische Beiträge 33 (1): 103–136.

Bernhauer, M. 1899: Dritte Folge neuer Staphyliniden aus Europa, nebst synonymischen und anderen Bemerkungen. – Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 49: 15–27.

Bernhauer, M. 1900: Achte Folge neuer Staphyliniden aus Europa, nebst Bemerkungen. – Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 49: 197–204.

Bernhauer, M. 1901: Die Staphyliniden der paläarktischen Fauna. – Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 51: 430–506.

Bernhauer, M. 1902: Die Staphyliniden der paläarktischen Fauna. I. Tribus: Aleocharini (II. Theil). – Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 52 (Beiheft): 87–284.

BERNHAUER, M. 1912: Neue Staphyliniden der paläarktischen Fauna. – Entomologische Zeitschrift 25 (50): 259–264.

BERNHAUER, M. 1914: Beiträge zur Kenntnis der paläarktischen Staphyliniden-Fauna. III. – Münchener Koleopterologische Zeitschrift 4 (1): 33–45.

BERNHAUER, M. 1928: Neue Staphyliniden der palaearktischen Fauna. – Koleopterologische Rundschau 14: 8–23.

BERNHAUER, M. 1935: Materiali zoologici raccolti dalla spedizione italiana al Karakoram (1929 – Anno VII). Beschreibungen einiger neuen Staphyliniden-Arten. – Atti del Museo Civico di Storia Naturale Trieste 12 [1934]: 86–88.

BERNHAUER, M. & SCHEERPELTZ, O. 1926: Staphylinidae VI. – In: JUNK, W. & SCHENKLING, S. (eds.), Coleopterorum Catalogus, pars 82. – Berlin: 499–988.

BLACKWELDER, R.E. 1952: The generic names of the beetles family Staphylinidae. – Smithsonian Institution, United States National Museum Bulletin 200: I–IV + 1–483.

CAMERON, M. 1933: New species of Staphylinidae (Col.) from Japan. – The Entomologist´s Monthly Magazine 69: 208–219.

CAMERON, M. 1939: Fauna of British India including Ceylon and Burma. Coleoptera Staphylinidae. Volume IV. Parts I & II. – Taylor and Francis, London: xviii + 691 pp.

CASEY, T.L. 1906: Observations on the staphylinid groups Aleocharinae and Xantholinini, chiefly of America. – Transactions of the Academy of Science of St. Louis 16 (6): 125–434.

DROST, B. & CUPPEN, J.G.M. 2008: Entomofauna van Zuid-Limburg. Verslag van de 162e zomerbijeenkomst te Mechelen. – Entomologische Berichten 68 (4): 130–153.

EPPELSHEIM, E. 1878: Staphylinidae. – In: SCHNEIDER, O. & LEDER, H.: Beiträge zur Kenntniss der kaukasischen Käferfauna. – Verhandlungen des Naturforschenden Vereines in Brünn 16 [1877]: 90–131.

EPPELSHEIM, E. 1884: *Leptusa affinis* EPPELSHEIM n. sp.; pp. 42–43. – In: BRENSKE, E. & REITTER, E.: Neuer Beitrag zur Käferfauna Griechenlands. – Deutsche Entomologische Zeitschrift 28 (1): 17–100.

EPPELSHEIM, E. 1889: Neue Staphylinen Europa´s und der angrenzenden Länder. – Deutsche Entomologische Zeitschrift 1889: 161–183.

EPPELSHEIM, E. 1893: Beitrag zur Staphylinen-Fauna des südwestlichen Baikal-Gebietes. – Deutsche Entomologische Zeitschrift 1893 (1): 17–67.

ERICHSON, W.F. 1837: Die Käfer der Mark Brandenburg. Erster Band, Erste Abtheilung. – F.H. Morin, Berlin: viii + 384 pp.

ERICHSON, W.F. 1839: Die Käfer der Mark Brandenburg. Erster Band, Zweite Abtheilung. – F.H. Morin, Berlin: 385–740.

FAGEL, G. 1971: Contribution à la connaissance des Staphylinidae. CXIII. Remarques sur la faune de l'Uludagh, en Anatolie égéenne. – Bulletin et Annales de la Société Royale d'Entomologie de Belgique 107: 119–141.

FENYES, A. 1918: Coleoptera Fam. Staphylinidae subfam. Aleocharinae. – In: WYTSMAN, P. (ed.), Genera Insectorum, Fascicule 173a. – Louis Desmet-Verteneuil, Bruxelles: 1–110.

FOCARILE, A. 1982: Note sur quelques Coléoptères Staphylinides de la Suisse et des Alpes occidentales. – Revue Suisse de Zoologie 89 (2): 543–552.

GANGLBAUER, L. 1895: Die Käfer von Mitteleuropa. 2. Band: Staphylinidae und Pselaphidae. – Carl Gerold´s Sohn, Wien: 850 pp.

HAMMOND, P.M. 1972: On the type material of Staphylinidae (Col.) described by T. Marsham and J. F. Stephens. – Entomologist´s Gazette 23: 129–135.

Heer, O. 1839: Fascicule II; pp 145–360. In: Fauna Coleopterorum Helvetica Pars I. – Orelii, Fuesslini et Sociorum, Turici: xxii + 652 pp.

Horion, A. 1967: Faunistik der mitteleuropäischen Käfer. Bd. XI: Staphylinidae, 3. Teil: Habrocerinae bis Aleocharinae (ohne Subtribus Athetae). – Überlingen-Bodensee: 419 pp.

ICZN 1999: International Code of Zoological Nomenclature. Fourth Edition. – London: XXIX + 306 pp.

Jäger, O., Brunk, I. & Lorenz, J. 2016: Zur Insekten- und Spinnenfauna der Kleinraschützer Heide bei Großenhain in Sachsen – Allgemeiner Teil und Käfer (Coleoptera). – Sächsische Entomologische Zeitschrift 8 [2014/2015]: 30–67.

Jászay, T. & Hlaváč, P. 2016: Zoznam drobcíkovitých chrobákov slovenska (Insecta: Coleoptera: Staphylinidae). – Folia Faunistica Slovaca 21 (2): 131–216.

Kleeberg, A. 2012: Faunistisch bemerkenswerte und für Mecklenburg-Vorpommern neue Arten der Kurzflügelkäfer (Coleoptera, Staphylinidae) – Teil 3. – Archiv der Freunde der Naturgeschichte in Mecklenburg 51: 107–126.

Kleeberg, A. 2016: Faunistisch bemerkenswerte und für Mecklenburg-Vorpommern neue Arten der Kurzflügelkäfer (Coleoptera: Staphylinidae) – Teil 5. – Archiv Natur- und Landeskunde Mecklenburg-Vorpommern 54: 12–33.

Klimaszewski, J., Webster, R.P., Langor, D.W., Brunke, A., Davies, A., Bourdon, C., Labrecque, M., Newton, A.F., Dorval, J.-A. & Frank, J.H. 2018: Aleocharine rove beetles of Eastern Canada (Coleoptera, Staphylinidae, Aleocharinae): a glimpse of megadiversity. – Springer, Cham: i–xvi + 902 pp.

Köhler, F. 2014: Die Käfer (Coleoptera) des Naturwaldreservates Kinzigaue (Hessen). Untersuchungszeitraum 1999–2001. – In: Blick, T., Dorow, W.H.O. & Köhler, G.: Kinzigaue. Zoologische Untersuchungen 1999–2001, Teil 2. Naturwaldreservate in Hessen 13: 5–57.

Kostenbader, H.: Bericht über die Exkursionen der Arbeitsgemeinschaft südwestdeutscher Koleopterologen ins Rotachtal im Ostalbkreis im Jahr 2010. – Mitteilungen des Entomologischen Vereins Stuttgart 47: 3–22.

Kraatz, G. 1856: Naturgeschichte der Insecten Deutschlands. Erste Abtheilung Coleoptera. Zweiter Band. Lieferung 1 und 2. – Nicolai, Berlin: viii + 376 pp.

Lattin, G. de 1967: Grundriss der Zoogeographie. – Gustav Fischer Verlag, Stuttgart: 602 pp.

Lohse, G.A. 1974: Tribus 15–19 (Schistogenini–Aleocharini); pp. 221–292. – In: Freude, H., Harde, K.W. & Lohse, G.A. (eds.), Die Käfer Mitteleuropas, Band 5, Staphylinidae II (Hypocyphtinae und Aleocharinae), Pselaphidae. – Goecke & Evers, Krefeld: 381 pp.

Lohse, G.A. 1988: Staphylinidenstudien II. – Entomologische Blätter 84 (1–2): 41–50.

Lohse, G.A. 1989: 23. Familie Staphylinidae (II) (Aleocharinae); pp. 185–240. – In: Lohse, G.A. & Lucht, W.H. (eds.), Die Käfer Mitteleuropas. 1. Supplementband mit Katalogteil. – Goecke & Evers, Krefeld: 346 pp.

Lohse, G.A. 1998: 206. Gattung: *Parocyusa* Bernhauer; pp. 186, 188. – In: Lucht, W. & Klausnitzer, B. (eds.), Die Käfer MItteleuropas. 4. Supplementband. – Goecke & Evers, Krefeld: 398 pp.

Lohse, G.A., Klimaszewski, J. & Smetana, A. 1990: Revision of Arctic Aleocharinae of North America (Coleoptera: Staphylinidae). – Coleopterists Bulletin 44: 121–202.

Mulsant, E. & Rey, C. 1875: Pp. 163–565. – In: Histoire naturelle des coléoptères de France. Brévipennes. Aléochariens (Suite). Aleocharaires. – Deyrolle, Paris: 565 pp.

Newton, A.F. 2019: StaphBase: Staphyliniformia world catalog database (version N. 2018). In: Roskov, Y., Ower, G., Orrell, T., Nicolson, D., Bailly, N., Kirk, P.M., Bourgoin,

T., DeWalt, R.E., Decock, W., Nieukerken, E. van, Zarucchi, J., Penev, L.(eds), Species 2000 & ITIS Catalogue of Life, 2019 Annual Checklist. Digital resource at www.catalogueoflife.org/annual-checklist/2019. Species 2000. – Naturalis, Leiden, the Netherlands.

Osswald, J., Bachmann, L. & Gusarov, V.I. 2013: Molecular phylogeny of the beetles tribe Oxypodini (Coleoptera: Staphylinidae: Aleocharinae). – Systematic Entomology 38: 507–522.

Pace, R. 1980: *Leptusa* (*Micropisalia*) *kuhnelti* [sic] Scheerpeltz, 1963 non apartiene alla tribu Bolitocharini, ma e specie del genere *Meotica* Mulsant, Rey (Coleoptera Staphylinidae). – Nouvelle Revue d'Entomologie 10: 265–268.

Pace, R. 1986: Aleocharinae dell'Himalaya raccolte da Guillaume de Rougemont (Coleoptera Staphylinidae). – Bollettino del Museo Civico di Storia Naturale di Verona 12 (1985): 165–191.

Pace, R. 1993: Aleocharinae della Cina (Coleoptera, Staphylinidae). – Bollettino del Museo Civico di Storia Naturale di Verona 17 (1990): 69–125.

Pace, R. 1999: Aleocharinae della Cina: Parte V (conclusione). – Revue Suisse de Zoologie 106 (1): 107–164.

Pace, R. 2006: Aleocharinae del Nepal al Naturkundemuseum di Erfurt (Insecta: Coleoptera: Staphylinidae). – In: Hartmann M. & J. Weipert (eds), Biodiversität und Naturausstattung im Himalaya Band II. Verein der Freunde und Förderer des Naturkundemuseums Erfurt e.v., Erfurt: 343–408.

Pace, R. 2010: Thamiaraeini, Lomechusini, Oxypodini, Hoplandriini e Aleocharini di Taiwan (Coleoptera, Staphylinidae). – Bollettino del Museo Civico di Storia Naturale di Verona 34: 19–54.

Pace, R. 2012: Biodiversità delle Aleocharinae della Cina: Hygronomini e Oxypodini (Coleoptera, Staphylinidae). – Beiträge zur Entomologie, Keltern 62 (1): 125–163.

Pace, R. 2013: Nuovo contributo alla conscenza delle Aleocharinae del Nepal (Insecta: Coleoptera: Staphylinidae). – Vernate 32: 347–370.

Pace, R. 2015: Contributo alla conoscenza della biodiversità delle Aleocharinae del Nepal (Insecta: Coleoptera: Staphylinidae). – Vernate 34: 199–227.

Pace, R. 2016: Aleocharinae della Cina al "Naturkundemuseum" di Erfurt (Insecta: Coleoptera: Staphylinidae). – Vernate 35: 295–336.

Pace, R. 2017: [New taxa]. In: Pace, R. & Hartmann, M.: Berichtigungen und Ergänzungen zum Artikel Pace "Aleocharinae della Cina al 'Naturkundemuseum' di Erfurt (Insecta: Coleoptera: Staphylinidae)". – Vernate 36: 297–303.

Paśnik, G. 2001: The North Korean Aleocharinae (Coleoptera, Staphylinidae): diversity and biogeography. – Acta Zoologica Cracoviensia 44 (3): 185–234.

Renner, K. 2011: Über die artenreiche Käferfauna der Senne in Westfalen und des angrenzenden Lippischen Waldes. – Berichte des Naturwissenschaftlichen Verein für Bielefeld und Umgegend 50: 167–210.

Sahlberg, J. 1876: Enumeratio coleopterorum brachelytrorum Fenniae. Systematisk förteckning öfver de inom Finlands naturalhistoriska område hittills funna Coleoptera Brachelytra jemte uppgift om arternas utbredning och beskrifningar af nya och mindre kända species. I. Staphylinidae. – Acta Societatis pro Fauna Flora Fennica 1: 1–248.

Saulcy, F.H.C. de 1865: Descriptions des espèces nouvelles de coléoptères recueillies en Syrie, en Égypte et en Palestine, pendant les mois d'octobre 1863 a janvier 1864, par M. de Saulcy, sénateur, membre de l'Institut. 2e partie. – Annales de la Société Entomologique de France (4) 4 [1864]: 629–660.

Scheerpeltz, O. 1958: Neue Arten der Gattung *Parocyusa* Bernh., nebst einer Bestimmungstabelle der bis heute bekannt gewordenen Arten dieser Gattung (Col. Staphylinidae). – Nachrichtenblatt der Bayerischen Entomologen 7: 102–104, 106–112.

Scheerpeltz, O. 1962: Neue Staphylinidenarten vom Peloponnes (Col. Staph.). – Anzeiger der Österreichischen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse, Abt. I 99: 255–270.

Scheerpeltz, O. 1963: Ergebnisse der von Wilhelm Kühnelt nach Griechenland unternommenen zoologischen Studienreisen. I. (Coleoptera-Staphylinidae). – Sitzungsberichte der Österreichischen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse, Abt. 1 172 (9–10): 413–452.

Schilow, W.F. 1979: Material zu einer Revision der Gattung *Chilopora* Kraatz der europäischen und kaukasischen Fauna (Coleoptera, Staphylinidae, Aleocharinae). – Reichenbachia 17 (16): 121–128.

Scholze, P., Jung, M., Schöne, A. & Lübke-Al Hussein, M. 2016: Kurzflügler (Coleoptera: Staphylinidae). Bestandssituation; pp. 776–808. – In: Frank, D. & Schnitter, P. (eds.), Pflanzen und Tiere in Sachsen-Anhalt – Ein Kompendium der Biodiversität. – Natur+Text, Rangsdorf: 1132 pp.

Schülke, M. & Smetana, A. 2015: Staphylinidae, pp. 304–1134. – In: Löbl, I. & Löbl, D. (eds), Catalogue of Palaearctic Coleoptera. Volume 2. Hydrophiloidea – Staphylinoidea. Revised and updated edition. – Leiden: Brill: xxvi + 1702 pp.

Smetana, A. 2004: Staphylinidae, subfamily Aleocharinae, pp. 353–494. – In: Löbl, I. & Smetana, A. (eds), Catalogue of Palaearctic Coleoptera. II. Hydrophiloidea – Histeroidea – Staphylinoidea. Stenstrup, Apollo Books: 942 pp.

Stephens, J.F. 1832: Illustrations of British entomology. Mandibulata. Vol. V. – London: 240 pp.

Stephens, J.F. 1839: A manual of British Coleoptera, or beetles. – London: 443 pp.

Strand, A. 1962: *Chilopora crebrepunctata* n. sp. (Col., Staphylinidae). – Norsk Entomologisk Tidsskrift 12: 39–40.

Strand, E. 1935: Revision von Gattungsnamen palaearktischer Coleoptera. – Folia Zoologica et Hydrobiologica 7 (2): 282–299.

Uhlig, M., Uhlig, B., Vogel, J. & Herger, P. 2006: Zur Kurzflüglerfauna der Schweiz (Coleoptera: Staphylinidae). – Entomologische Berichte Luzern 56: 21–64.

Vogel, J. 2017: Erster Nachtrag zur Staphyliniden-Fauna der Oberlausitz (Coleoptera). – Entomologische Nachrichten und Berichte 61 (1): 59–68.

Winkler, A. 1925: Catalogus Coleopterorum regionis palaearcticae. Pars 4. – Wien: 369–496.

Zanetti, A. 2015: Second contribution to the knowledge of rove beetles (Coleoptera: Staphylinidae) of Val di Non / Nonstal (Trentino/Südtirol, Italy). – Gredleriana 15: 77–109.

Zanetti, A., Sette, A., Poggi, R. & Tagliapietra, A. 2016: Biodiversity of Staphylinidae (Coleoptera) in the Province of Verona (Veneto, Northern Italy). – Memorie della Società Entomologica Italiana 93 (1–2): 3–237.

Zerche, L. 2007: *Tectusa montana* aus den Alpen und die *Tectusa*-Arten der Karpaten – *Tectusa*-Studien 1 (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – Beiträge zur Entomologie, Keltern 57 (2): 285–320.

Zerche, L. 2008: Was ist *Oxypoda montana* Kraatz (Coleoptera: Staphylinidae: Aleocharinae) aus den Karpaten? – Entomologica Romanica 12: 163–183.

Zerche, L. 2014: Einige *Oxypoda*-Funde aus den Alpen (Coleoptera: Staphylinidae: Aleocharinae). – Joannea Zoologie 13: 197–213.