

## New species and additional records of *Leptusa* from the Palaearctic region, with a focus on the faunas of China and the Caucasus region (Coleoptera: Staphylinidae: Aleocharinae)

With 79 figures

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### Abstract

Eleven species of *Leptusa* KRAATZ, 1858 are described and illustrated: *Leptusa* (*Aphaireleptusa*) *excisa* spec. nov. (China: Shaanxi: Qinling Shan); *L. (A.) grandipennis* spec. nov. (China: Sichuan: Songpan env.); *L. (A.) gonggana* spec. nov. (China: Sichuan: Gongga Shan); *L. (A.) habana* spec. nov. (China: Yunnan: Haba Shan); *L. (A.) auriculata* spec. nov. (China: Yunnan: Diancang Shan); *L. (Drepanoleptusa) emeiana* spec. nov. (China: Sichuan: Emei Shan); *L. (D.) jizuica* spec. nov. (China: Yunnan: Jizu Shan); *L. (D.) desculpens* spec. nov. (China: Yunnan: Dawei Shan); *L. (Chondrelytropisalia) procera* spec. nov. (China: Sichuan: Songpan env.); *L. (Yunnaleptusa) monscangi* spec. nov. (China: Yunnan: Diancang Shan); *L. (Chondrelytropisalia) pathibarana* spec. nov. (Nepal: Taplejung district). One synonymy is proposed: *Leptusa (Drepanoleptusa) emplenotoides* ASSING, 2006 = *Leptusa (Aphaireleptusa) zhongdianensis* PACE, 2010, syn. nov. *Leptusa jinfomontis* PACE, 2001 (previously in *Nesopisalia* PACE, 1992) and *L. calliceroides* ASSING, 2004 (previously incertae sedis) are moved to the subgenus *Drepanoleptusa* PACE, 1982. An updated catalogue of the *Leptusa* species recorded from China, Taiwan, and Hong Kong is provided. The *Leptusa* fauna of this region now includes 73 species and three subspecies in twelve subgenera. Additional records of 22 previously named species are reported from China (eleven species), the Caucasus region (eight), Japan (two), and South Korea (one), among them several new country and regional records. *Leptusa* is now represented in the Palaearctic region by 418 species and 74 subspecies in 71 subgenera.

### Taxonomic acts

*Leptusa excisa* spec. nov. – urn:lsid:zoobank.org:act:963E5B3D-F42E-411C-A6A9-F57EBCCA00E5  
*Leptusa grandipennis* spec. nov. – urn:lsid:zoobank.org:act:476EFE09-A2F0-4227-8F55-AEC9D658E159  
*Leptusa gonggana* spec. nov. – urn:lsid:zoobank.org:act:063A3FD3-32D8-4F48-AABA-5AB12CF1A686  
*Leptusa habana* spec. nov. – urn:lsid:zoobank.org:act:217C5415-9901-4E13-8DD8-3F8AEA4CC8C1  
*Leptusa auriculata* spec. nov. – urn:lsid:zoobank.org:act:1812AE30-52FF-498D-B8C2-D600DCAB2724  
*Leptusa emeiana* spec. nov. – urn:lsid:zoobank.org:act:43EA4727-AFD3-4C04-826C-73ADCE6DAEF0  
*Leptusa jizuica* spec. nov. – urn:lsid:zoobank.org:act:D1844B8D-2B3B-4388-933D-F2F98883B6A6  
*Leptusa desculpens* spec. nov. – urn:lsid:zoobank.org:act:A3342BAF-F31E-43E6-9636-8250A85FBD97  
*Leptusa procera* spec. nov. – urn:lsid:zoobank.org:act:C3881039-6537-452F-974C-48BDAFD02762  
*Leptusa monscangi* spec. nov. – urn:lsid:zoobank.org:act:2B2ECDE0-93FD-42BB-BF27-6D7C7B8E38BC  
*Leptusa pathibarana* spec. nov. – urn:lsid:zoobank.org:act:ED968EFF-8133-4318-992C-A4D401C04ADB

## Key words

Coleoptera, Staphylinidae, Aleocharinae, Homalotini, *Leptusa*, taxonomy, new species, new synonymy, new subgeneric assignments, description, China, Caucasus region, new records, catalogue

## Zusammenfassung

Elf Arten der Gattung *Leptusa* KRAATZ, 1858 werden beschrieben und abgebildet: *Leptusa* (*Aphaireleptusa*) *excisa* spec. nov. (China: Shaanxi: Qinling Shan); *L. (A.) grandipennis* spec. nov. (China: Sichuan: Songpan env.); *L. (A.) gonggana* spec. nov. (China: Sichuan: Gongga Shan); *L. (A.) habana* spec. nov. (China: Yunnan: Haba Shan); *L. (A.) auriculata* spec. nov. (China: Yunnan: Diancang Shan); *L. (Drepanoleptusa) emeiana* spec. nov. (China: Sichuan: Emei Shan); *L. (D.) jizuica* spec. nov. (China: Yunnan: Jizu Shan); *L. (D.) desculpens* spec. nov. (China: Yunnan: Dawei Shan); *L. (Chondrelytropisalia) procera* spec. nov. (China: Sichuan: Songpan env.); *L. (Yunnaleptusa) monscangi* spec. nov. (China: Yunnan: Diancang Shan); *L. (Chondrelytropisalia) pathibarana* spec. nov. (Nepal: Taplejung district). Ein Name wird synonymisiert: *Leptusa (Drepanoleptusa) emplenotoides* ASSING, 2006 = *Leptusa (Aphaireleptusa) zhongdianensis* PACE, 2010, syn. nov. *Leptusa jinfomontis* PACE, 2001 (bisher in *Nesopisalia* PACE, 1992) und *L. calliceroides* ASSING, 2004 (bisher incertae sedis) werden in die Untergattung *Drepanoleptusa* PACE, 1982 transferiert. Ein aktualisierter Katalog der *Leptusa*-Arten Chinas, Taiwans und Hongkongs wird erstellt. Die *Leptusa*-Fauna dieser Region umfasst derzeit 73 Arten und drei Unterarten in zwölf Untergattungen. Weitere Nachweise von 22 Arten, darunter mehrere Erstnachweise, werden aus China (elf Arten), der Kaukasusregion (acht), Japan (zwei) und Südkorea (eine) gemeldet. *Leptusa* ist derzeit in der Paläarktis mit 418 Arten und 74 Unterarten in 71 Untergattungen vertreten.

## Schlüsselwörter

Coleoptera, Staphylinidae, Aleocharinae, Homalotini, *Leptusa*, Taxonomie, neue Arten, neue Synonymie, neue Untergattungszuordnung, Beschreibung, China, Kaukasusregion, neue Nachweise, Katalog

## Introduction

The megadiverse aleocharine genus *Leptusa* KRAATZ, 1858 was previously represented in the Palaearctic region by a total of 408 species and 74 subspecies, with 401 species and all the subspecies assigned to 71 subgenera and nine species listed as incertae sedis (SCHÜLKE & SMETANA 2015, ASSING 2017, 2019). The vast majority of the *Leptusa* species is micropterous, more or less locally endemic, and confined to montane, subalpine, and alpine habitats. Diversity hotspots are the mountain ranges of the northern Iberian Peninsula, Italy, and the Balkans, the Alps, the Caucasus region (including Northeast Turkey and North Iran), the Himalayan region, and the mountain ranges of China and Taiwan (PACE 1989, ASSING 2002, 2011a).

ASSING (2017, 2019) summarised the fauna of the Caucasus region. According to a catalogue provided by ASSING (2010), the *Leptusa* fauna of China and Taiwan was composed of 65 named species and subspecies in twelve subgenera. Two species were added by PACE (2010).

The present study is based on *Leptusa* material made available to me from various sources, primarily by Aleš Smetana (Ottawa) and Michael Schülke (Berlin). An examination of this material revealed that it included as many as eleven unnamed species, ten of them from China, plus numerous records of previously described species.

## Material and methods

The material examined in the course of the present study is deposited in the following public and private collections:

CAS	Chinese Academy of Sciences, Beijing
CNC	Canadian National Collection of Insects, Arachnids and Nematodes (A. Brunke, A. Smetana)
HNHM	Hungarian Natural History Museum (Gy. Makranczy)
MNB	Museum für Naturkunde, Berlin (coll. Schülke)
NIBR	National Institute of Biological Resources, Incheon, Korea
NME	Naturkundemuseum Erfurt (M. Hartmann)
cAss	author's private collection
cGon	private collection Andrey Gontarenko, Odessa
cKov	private collection Alexey Kovalev, St. Petersburg

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

Body length was measured from the anterior margin of the labrum to the apex of the abdomen, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the ante-

rior margin of the clypeus 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 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.

## Results

An examination of many hundred specimens primarily from China and from the Caucasus regions yielded eleven new species and numerous records of previously named species, among them several new country and regional records. Moreover, a new synonymy and two new subgeneric assignments are proposed.

### The *Leptusa* fauna of China

Including ten newly described species and a new synonymy, the *Leptusa* fauna of China, Taiwan, and Hong Kong now includes 73 species and three subspecies in twelve subgenera, with three species not assigned to any of the available subgenera. In view of the number of new species and of the fact that some species have not yet been revised, it appears likely that additional species and synonymies remain to be discovered in the future.

The distributions of two of the newly described species are somewhat doubtful. One of them, *L. auriculata*, was collected in several localities in Diangcang Shan and one in Emei Shan, and the other, *L. emeiana*, was found in several localities in Emei Shan and one in Diancang Shan. The respective specimens were collected by the same entomologist in mountain ranges separated by a considerable distance in the same year, suggesting that these records may be partly based on mislabeled material.

### Updated catalogue of the *Leptusa* species of China, Taiwan, and Hong Kong

The subgenera and the species within each subgenus are arranged alphabetically. The references are sorted by publication year.

The literature references are abbreviated as follows: A02 = ASSING (2002); A04 = ASSING (2004); A06 = ASSING (2006); A08 = ASSING (2008); A10 = ASSING (2010); App = ASSING (present paper); P92 = PACE (1992); P95 = PACE (1995); P96 = PACE (1996); P97 = PACE (1997); P99 = PACE (1999); P01 = PACE (2001); P04 = PACE (2004); P07 = PACE (2007); P10 = PACE (2010).

The subgeneric assignments, specific identities, and status of *L. qinlingensis* (*Akratopisalia*), *L. erlangensis* (*Drepanoleptusa*), *L. microvolans* (*Drepanoleptusa*), *L. rorata* (*Drepanoleptusa*), *L. taichungensis* (*Homopisalia*), and *L. kaohsiungensis* (*Kochliodepisalia*) are doubtful, since the male sexual characters are unknown. In the catalogue, these species are marked with an asterisk.

Subgenus/Species	Distribution	References
<b><i>Akratopisalia</i> PACE, 1996</b>		
<i>cribrata</i> PACE, 1996	Taiwan	P96, A02
<i>kangdingensis</i> PACE, 2010	Sichuan: Daxue Shan	P10
<i>limata</i> ASSING, 2002	China: Shaanxi, Hubei, Beijing	A02, A04, App
* <i>qinlingensis</i> PACE, 1999	China: Shaanxi: Qinling Shan	P99
<i>xianensis</i> PACE, 1999	China: Shaanxi, Gansu	P99, App
<b><i>Anosiopisalia</i> PACE, 1995</b>		
<i>nemoricultrix</i> PACE 1995	Taiwan	P95
<b><i>Aphaireleptusa</i> PACE, 1996</b> = <i>Aleteleptusa</i> PACE, 1997 = <i>Mimumenepisalia</i> PACE, 1997		
<i>acuta</i> ASSING, 2002	Taiwan	A02, P07
<i>anmashanensis</i> PACE, 1996	Taiwan	P96, A02, P07
<i>auriculata</i> spec. nov.	China: Yunnan: Diancang Shan	App
<i>chinensis</i> PACE, 1997	China: Sichuan, Shaanxi, Yunnan	P97, A02, P04, A06, App
<i>excisa</i> spec. nov.	China: Shaanxi: Qinling Shan	App
<i>formidabilis</i> PACE, 1996	Taiwan	P96, A02
<i>gansuensis</i> PACE, 1997	China: Gansu, Sichuan	P97, P10, App

Subgenus/Species	Distribution	References
<i>ganzica</i> ASSING, 2002	China: Sichuan: Daxue Shan	A02
<i>gonggamontis</i> PACE, 1997 = <i>daxuemontis</i> PACE, 2001	China: Sichuan: Gongga Shan, Erlang Shan	P97, P01, A02, App
<i>gonggana</i> <b>spec. nov.</b>	China: Sichuan: Gongga Shan	App
<i>grandipennis</i> <b>spec. nov.</b>	China: Sichuan: Songpan env.	App
<i>habana</i> <b>spec. nov.</b>	China: Yunnan: Haba Shan	App
<i>jiudingensis</i> PACE, 1999	China: Sichuan	P99
<i>michai</i> ASSING, 2002	China: Shaanxi: Qinling Shan	A02
<i>semivolans</i> PACE, 1996	Taiwan	P96, A02
<i>tenchiensis</i> PACE, 1996	Taiwan	P96, A02, P07
<i>tenuicornis</i> ASSING, 2006	China: Yunnan: Zhongdian env.	A06
<i>turgida</i> ASSING, 2006	China: Yunnan: Zhongdian env.	A06
<i>wolongensis</i> ASSING, 2002	China: Sichuan: Qionglai Shan	A02
<i>xiahensis</i> PACE, 1997	China: Gansu, Sichuan	P97, P04
<i>xuemontis</i> PACE, 2001	China: Yunnan: Xue Shan	P01, A04, A06, P10
<i>yunnanensis</i> PACE, 2001	China: Yunnan	P01, A06
<b><i>Chondrelytropisalia</i> SCHEERPELTZ, 1976</b>		
<i>procera</i> <b>spec. nov.</b>	China: Sichuan: Songpan env.	App
<i>proiecta</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08, A10
<i>quinqueimpressa</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08, A10
<i>tectusoides</i> ASSING, 2002	China: Sichuan: Daxiang Ling	A02, A08
<b><i>Drepanoleptusa</i> PACE, 1982</b>		
<i>calliceroides</i> ASSING, 2004	China: Yunnan: Zhongdian env.	A04, App
<i>chengduensis</i> PACE, 2001	China: Sichuan, Shaanxi	P01, A02, A04
<i>desculpens</i> <b>spec. nov.</b>	China: Yunnan: Dawei Shan	App
<i>discolor</i> ASSING, 2006	China: Yunnan	A06, A08
<i>emeiana</i> <b>spec. nov.</b>	China: Sichuan: Emei Shan	App
<i>emplenotoides</i> ASSING, 2006 = <i>zhongdianensis</i> PACE, 2010; <b>syn. nov.</b>	China: Yunnan, Sichuan	A06, P10, App
* <i>erlangensis</i> PACE, 1999	China: Sichuan: Erlang Shan	P99
<i>jinfomontis</i> PACE, 2001	China: Sichuan: Jinfo Shan	P01, App
<i>jizuica</i> <b>spec. nov.</b>	China: Yunnan: Jizu Shan	App
* <i>microvolans</i> PACE, 1997	Hong Kong	P97
<i>pollicita</i> ASSING, 2010	China: Yunnan	A10, App
<i>puetzi</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08
* <i>rorata</i> PACE, 1995	Taiwan	P95
<i>rougemonti</i> PACE, 1997	China: Shanxi, Gansu	P97, App
<i>sichuanensis</i> PACE, 1997	China: Sichuan, Yunnan	P97, P04
<i>stimulans</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08
<i>taiwanensis</i> PACE, 1992	Taiwan	P92, P07
<i>titillans</i> ASSING, 2002	China: Sichuan: Daxue Shan	A02, A08
<i>wuyica</i> ASSING, 2002	China: Fujian: Wuyi Shan	A02
<b><i>Dysleptusa</i> PACE, 1982</b>		
<i>sinorum</i> PACE, 2001	China: Shaanxi: Qinling Shan	P01, App

Subgenus/Species	Distribution	References
<i>Eospisalia</i> PACE, 1982		
<i>pingtungensis</i> PACE, 1995	Taiwan	P95
<i>Heteroleptusa</i> PACE, 1989		
<i>flagellata</i> ASSING, 2002	China: Shaanxi: Qinling Shan	A02, App
<i>hastata</i> ASSING, 2002	China: Shaanxi: Daba Shan	A02
<i>peinantamontis</i> PACE, 2007	Taiwan	P07
<i>peregrina</i> PACE, 1995	Taiwan	P95, A02, P07
<i>shaanxiensis</i> PACE, 1999	China: Shaanxi, Sichuan	P99, P10
<i>Homopisalia</i> PACE, 1982		
* <i>taichungensis</i> PACE, 1996	Taiwan	P96
<i>Kochliodepisalia</i> PACE, 1996		
* <i>kaohsiungensis</i> PACE, 2007	Taiwan	P07
<i>spirarum</i> PACE, 1996	Taiwan	P96, A02
<i>Nesopisalia</i> PACE, 1992		
<i>centralis centralis</i> PACE, 1992	Taiwan	P92
<i>centralis reposita</i> PACE, 1992	Taiwan	P92
<i>centralis tarokensis</i> PACE, 1992	Taiwan	P92
<i>centralis yushanensis</i> PACE, 1992	Taiwan	P92, P07
<i>Yunnaleptusa</i> ASSING, 2008		
<i>armatissima</i> ASSING, 2008	China: Yunnan: Diancang Shan	A08, A10, App
<i>cultellata</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08, A10
<i>curvata</i> ASSING, 2006	China: Yunnan: Zhongdian env.	A06, A08
<i>hamulata</i> ASSING, 2010	China: Yunnan: Gaoligong Shan	A10
<i>monscangi</i> spec. nov.	China: Yunnan: Diancang Shan	App
<i>parvibulbata</i> ASSING, 2008	China: Yunnan: Gaoligong Shan	A08, A10
<i>recta</i> ASSING, 2006	China: Yunnan: Gaoligong Shan	A06, A08, App
<i>zhemomontis</i> ASSING, 2010	China: Yunnan: Zhemoshan	A10
<i>incertae sedis</i>		
<i>excaecata</i> ASSING, 2002	China: Shaanxi: Daba Shan	A02
<i>marmotae</i> ASSING, 2002	China: Sichuan: Shalui Shan	A02
<i>schuelkei</i> PACE, 1999	China: Shaanxi	P99, A08

*Leptusa (Dysleptusa) sinorum* PACE, 2001

**Material examined:** China: 1 ♂, S-Shaanxi, SW Zhouzhi, Qinling Shan, 33°44'N, 107°58'E, 1900 m, NE-slope, stream valley, mixed forest, litter and soil sifted, 25.VII.2012, leg. Schülke (cAss).

This species was previously known only from the type locality, which is situated close to the above locality.

*Leptusa (Akratopisalia) xianensis* PACE, 1999

**Material examined:** China: 6 exs., Gansu, Dagcanglhamo (= Langmusi) env., 34°04'N, 102°37'E, 3460–3640 m,

wet coniferous forest with rhododendron, detritus and wet moss sifted, 25.VI.2005, leg. Hájek, Král & Růžička (MNB, cAss).

The original description is based on nine type specimens from Qinling Shan in Shaanxi (PACE 1999). The species was subsequently reported from a second locality in Qinling Shan, Shaanxi (ASSING 2002). The above specimens represent the first record from Gansu.

*Leptusa (Akratopisalia) limata* ASSING, 2002

**Material examined:** China: 4 exs., Shaanxi, Qinling Shan, pass on road Zhouzhi–Foping, 105 km SW Xi'an,

33°44'N, 107°59'E, 1990 m, small stream valley with mixed deciduous forest and bamboo undergrowth, sifted, 2–4.VII.2001, leg. Schülke (MNB, cAss); 2 exs., S-Shaanxi Micang Shan, 40 km SW Hanzhong, 32°52'N, 106°37'E, 1530 m, N-slope, mixed secondary forest, litter and moss sifted, 16.VIII.2012, leg. Schülke (MNB, cAss); 2 exs., Hubei, Daba Shan, mountain range NE Muyuping, pass 12 km N Muyuping, 31°32'N, 110°26'E, 2380 m, young mixed deciduous forest, sifted, 17.VII.2001, leg. Schülke (MNB, cAss).

This widespread species has been recorded from Shaanxi, Hubei, and Beijing (ASSING 2002, 2004).

*Leptusa (Aphaireleptusa) gansuensis* PACE, 1997

**Material examined:** China: Sichuan: 2 exs., Ganzi Tibetan Autonomous Pref., Daxue Shan, Mugecuo, 15 km NW Kangding, upper lake, 30°09'N, 101°51'E, 3700 m, 27.VI.1999, leg. Pütz (cPüt); 4 exs., Sichuan, Ganzi Tibetan Autonomous Pref., Yajiang Co., Shalui Shan, 32 km WNW Yajiang, 30°08'N, 100°43'E, 4300 m, 2.VII.1999, leg. Pütz, Schülke (MNB, cPüt, cAss); 2 exs., 23 km E Songpan, 32°38'N, 103°51'E, 3920 m, sifted, 25.V.2012, leg. Grebennikov (CNC, cAss); 3 exs., 23 km E Songpan, 32°38'N, 103°49'E, 3840 m, 27.V.2012, leg. Grebennikov (CNC, cAss); 2 exs., 23 km E Songpan, 32°38'N, 103°49'E, 3930 m, sifted, 28.V.2012, leg. Grebennikov (CNC, cAss); 1 ex., 23 km E Songpan, 32°38'N, 103°50'E, 3860 m, sifted, 26.V.2012, leg. Grebennikov (CNC); 1 ex., 23 km E Songpan, 32°38'N, 103°49'E, 3760 m, sifted, 27.V.2012, leg. Grebennikov (CNC).

*Leptusa gansuensis* was originally described based on nine specimens from the environs in Xiahe, Gansu, and subsequently reported also from Shalui Shan in Ganzi Tibetan Autonomous Prefecture (PACE 1997, 2010).

*Leptusa (Aphaireleptusa) chinensis* PACE, 1997

**Material examined:** China: Sichuan: 33 exs., Emei Shan, 29°31'N, 103°20'E, 3035 m, sifted, 14.VI.2010, leg. Grebennikov (CNC, cAss); 21 exs., Emei Shan, 29°32'N, 103°20'E, 2930 m, sifted, 15.VI.2010, leg. Grebennikov (CNC, cAss); 6 exs., Emei Shan, 29°33'N; 103°20'E, 2310 m, sifted, 20.VI.2010, leg. Grebennikov (CNC, cAss); 2 exs., Emei Shan, 29°34'N, 103°21'E, 1800–2400 m, sifted, 27.VI.–5.VII.2009, leg. Grebennikov (CNC, cAss); 1 ex., Emei Shan, 29°33'N, 103°20'E, 2440 m, sifted, 18.VI.2010, leg. Grebennikov (CNC); 2 exs., Emei Shan, 29°32'N, 103°20'E, 2930 m, sifted, 15.VI.2010, leg. Grebennikov (CNC, cAss); 18 exs., Gongga Shan, NE-slope, 29°56'N, 101°59'E, 3550 m, sifted, 17.VI.2011, leg. Grebennikov (CNC, cAss); 7 exs., same data, but 3660 m (CNC, cAss); 1 ex., Daxue Shan, Kangding env., Paoma Shan, 30°03'N, 101°58'E,

2700–2900 m, 22.V.1997, leg. Schülke (MNB); 1 ex., Ganzi Tibet. Aut. Pref., Daxue Shan, Kangding Co., Mu Ge Cou, 2 km above lower lake, 30°11'N, 101°52'E, 5.VII.1999, leg. Schülke (cAss). Yunnan: 5 exs., Dali env., Cang Shan, E-slope, 25°40'N, 100°08'E, 2730 m, 13.V.2010, leg. Grebennikov (CNC, cAss).

This is the most common and most widespread representative of the subgenus *Aphaireleptusa* in mainland China. It has been recorded from numerous localities in Sichuan and Yunnan, but was previously unknown from Emei Shan and Cang (Diancang) Shan (ASSING 2002, 2006, PACE 1997, 2004).

*Leptusa (Aphaireleptusa) excisa* spec. nov.

urn:lsid:zoobank.org:act:963E5B3D-F42E-411C-A6A9-F57EBCCA00E5  
(Figs 1, 12, 19–25)

**Type material:** Holotype ♂: “P.R. CHINA, Shaanxi, S slope Qin Ling Shan, N33°51'40" E108°59'27", 15.v.2011, 2000–2600 m, sift01, V. Grebennikov / Holotypus ♂ *Leptusa excisa* sp. n. det. V. Assing 2020” (CAS). Paratypes: 22 exs.: same data as holotype (CNC, cAss); 4 exs.: “P.R. CHINA, Shaanxi, S slope Qin Ling Shan, N34°01'07" E107°51'50", 17.v.2011, 1700–2200 m, sift02, V. Grebennikov” (CNC).

**Etymology:** The specific epithet (adjective) alludes to the distinctly concave posterior margin of the male tergite VIII.

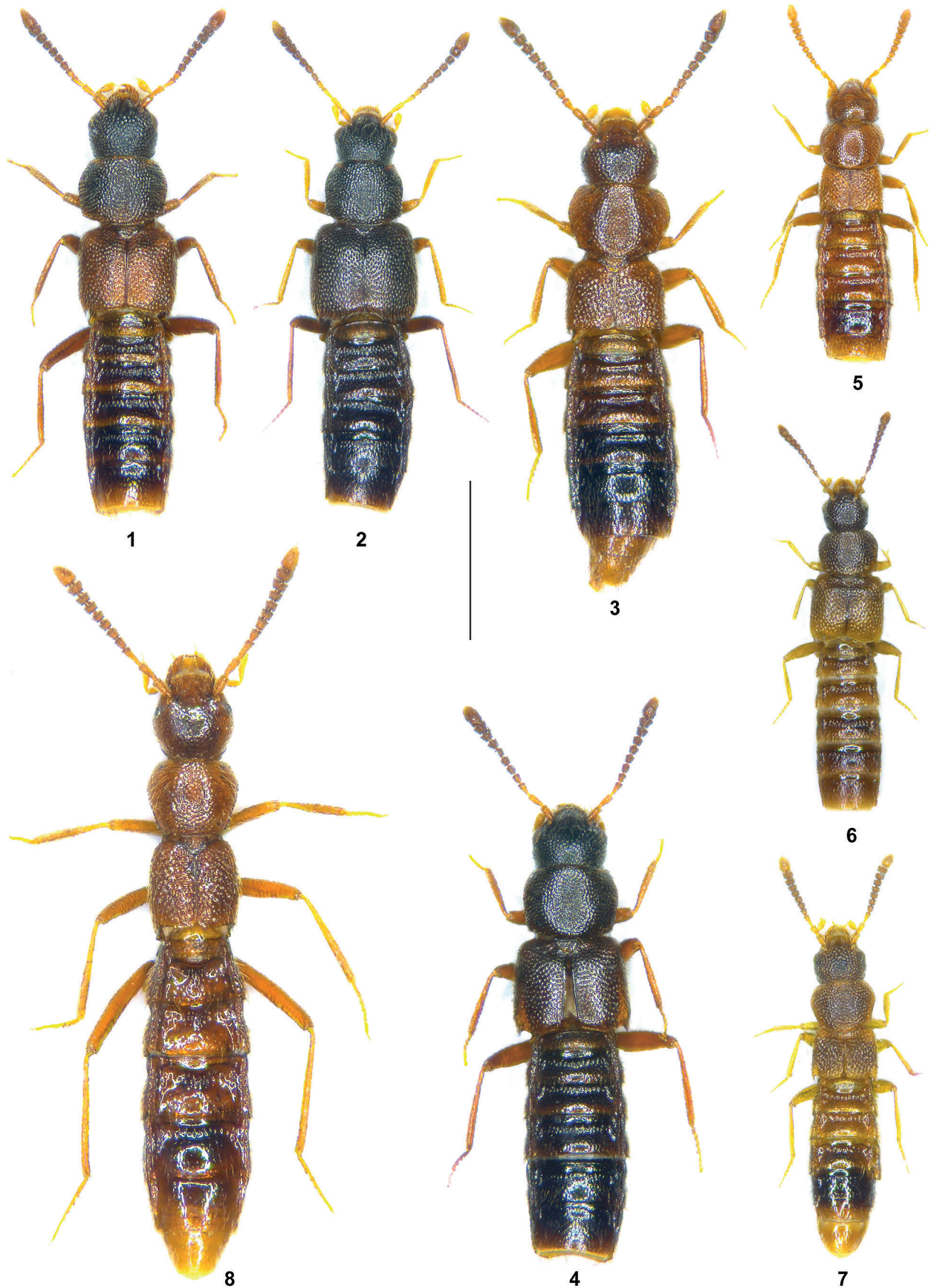
**Description:** Body length 2.4–3.2 mm; length of forebody 1.2–1.5 mm. Habitus as in Fig. 1. Colouration: head and pronotum blackish-brown to black; elytra reddish to dark-red; abdomen reddish to reddish-brown with tergite VI and the anterior half of tergite VII blackish; legs reddish; antennae reddish to reddish-brown with the basal 3–4 antennomeres yellowish-red.

Head (Fig. 12) transverse; punctation rather coarse, very dense, and somewhat umbilicate; interstices reduced to narrow ridges, without microsculpture. Eyes approximately as long as postocular region in lateral view. Antennae slender, gradually and moderately incrassate apically, preapical antennomeres approximately 1.5 times as broad as long.

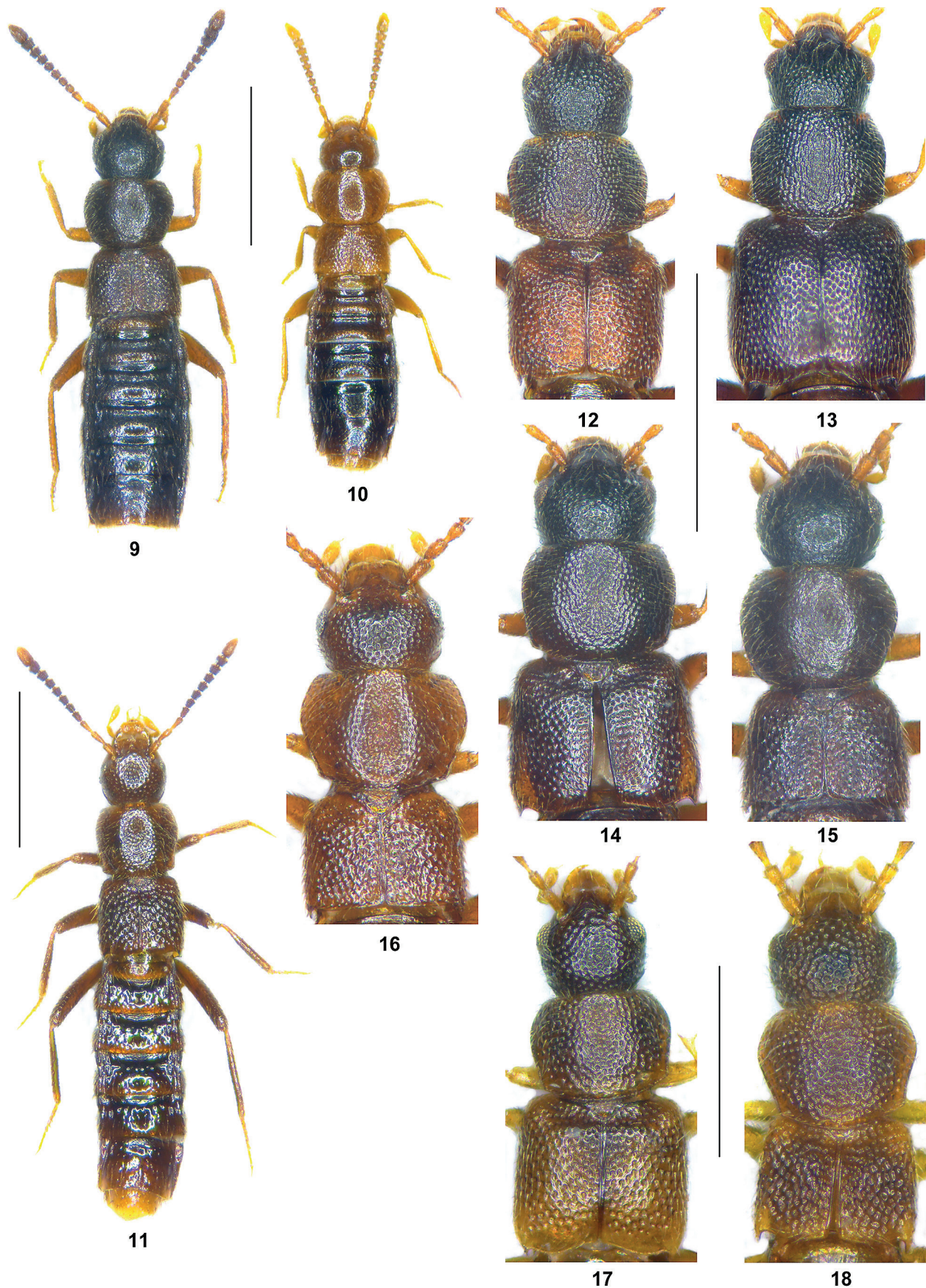
Pronotum (Fig. 12) 1.25–1.30 times as broad as long and approximately 1.25 times as broad as head; maximal width in anterior half; posterior angles angularly marked; punctation coarse, very dense, and distinctly granulose; interstices without microsculpture.

Elytra (Fig. 12) approximately as long as pronotum; punctation coarse, very dense, and defined. Hind wings present.

Abdomen narrower than elytra; punctation fine and rather dense, very coarse and very dense in anterior impressions of tergites III–VI; interstices without microsculpture and glossy; posterior margin of tergite VII with palisade fringe.

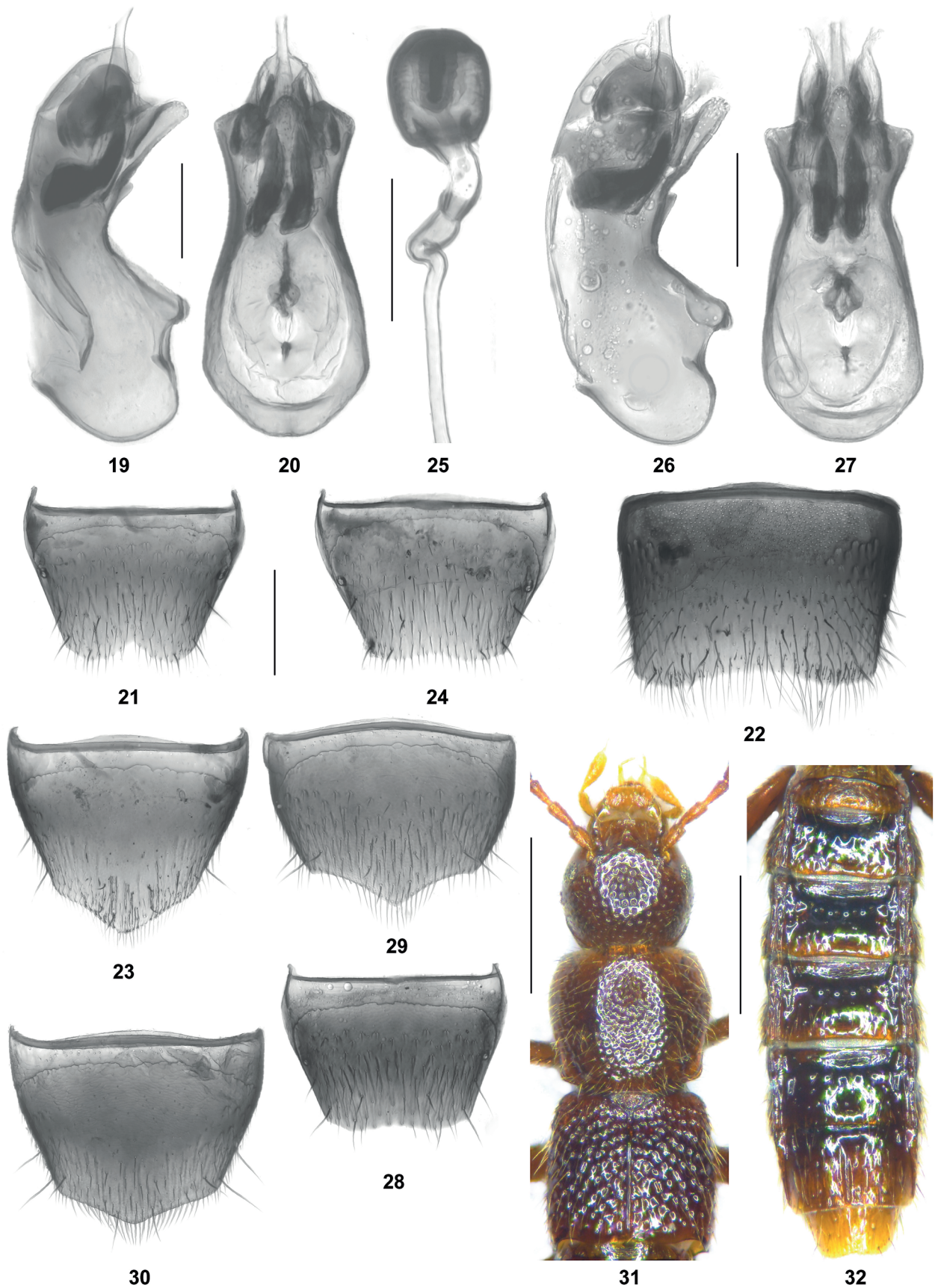


Figs 1–8: Male habitus of *Leptusa* spp. 1 – *L. excisa*; 2 – *L. grandipennis*; 3 – *L. auriculata*; 4 – *L. gonggana*; 5 – *L. emeiana*; 6 – *L. jizuica*; 7 – *L. desculpens*; 8 – *L. procera*. Scale bar: 1.0 mm.

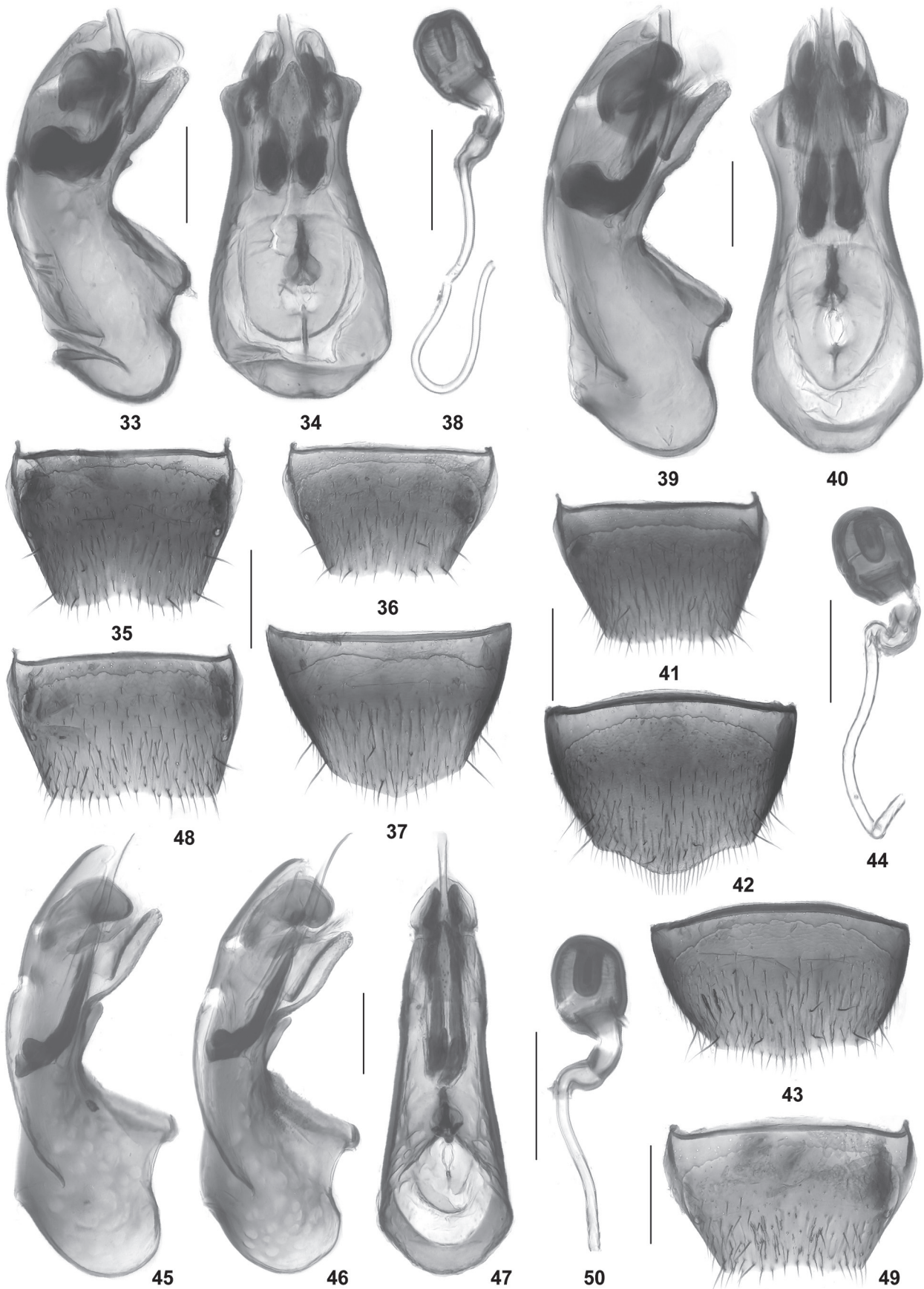


Figs 9–18: Male habitus (9–11) and forebody (12–18) of *Leptusa* spp. 9, 15 – *L. habana*; 10 – *L. monscangi*; 11 – *L. pathibarana*; 12 – *L. excisa*; 13 – *L. grandipennis*; 14 – *L. gonggana*; 16 – *L. auriculata*; 17 – *L. jizuica*; 18 – *L. desculpens*. Scale bars: 9–16: 1.0 mm; 17–18: 0.5 mm.

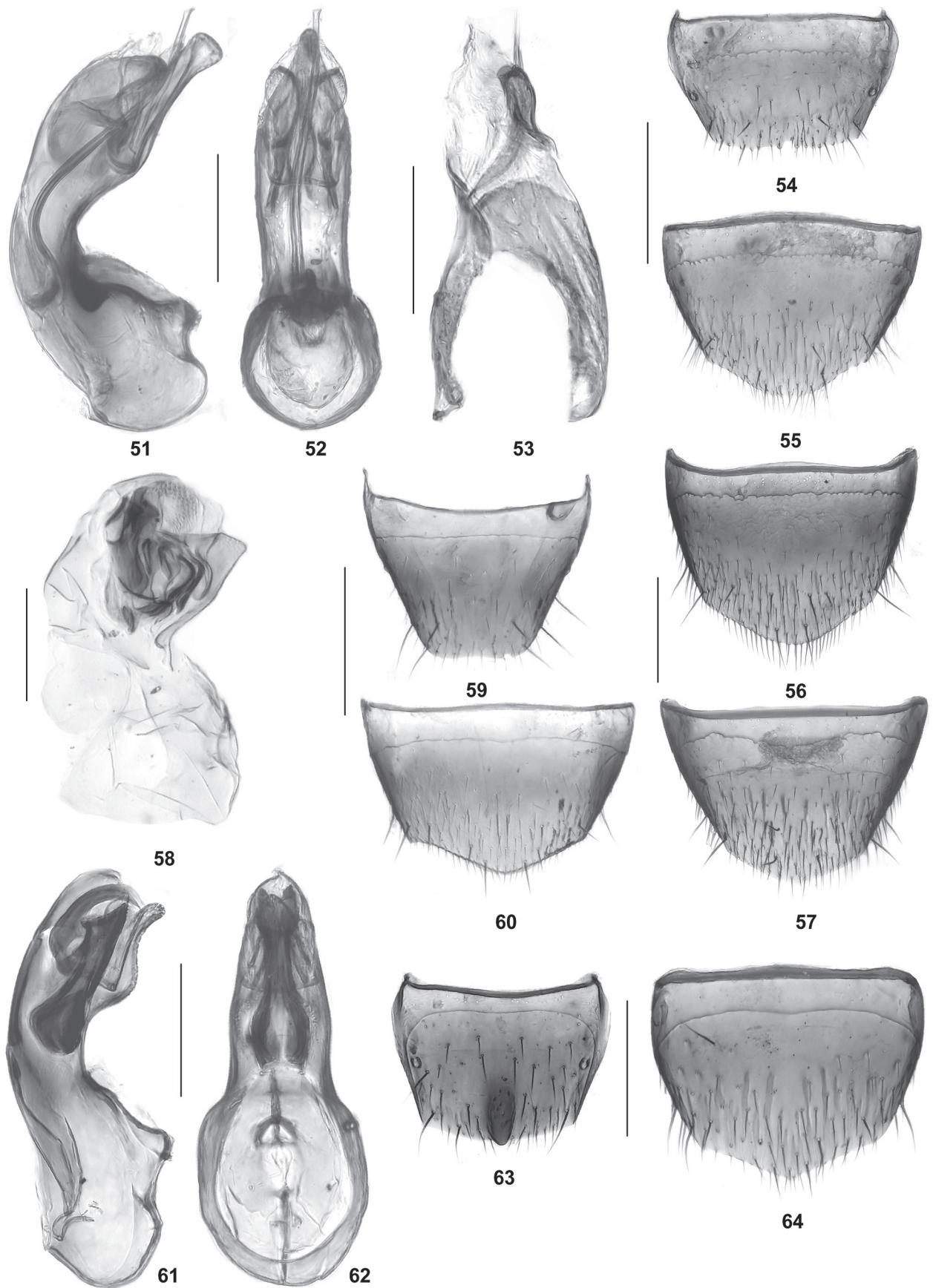




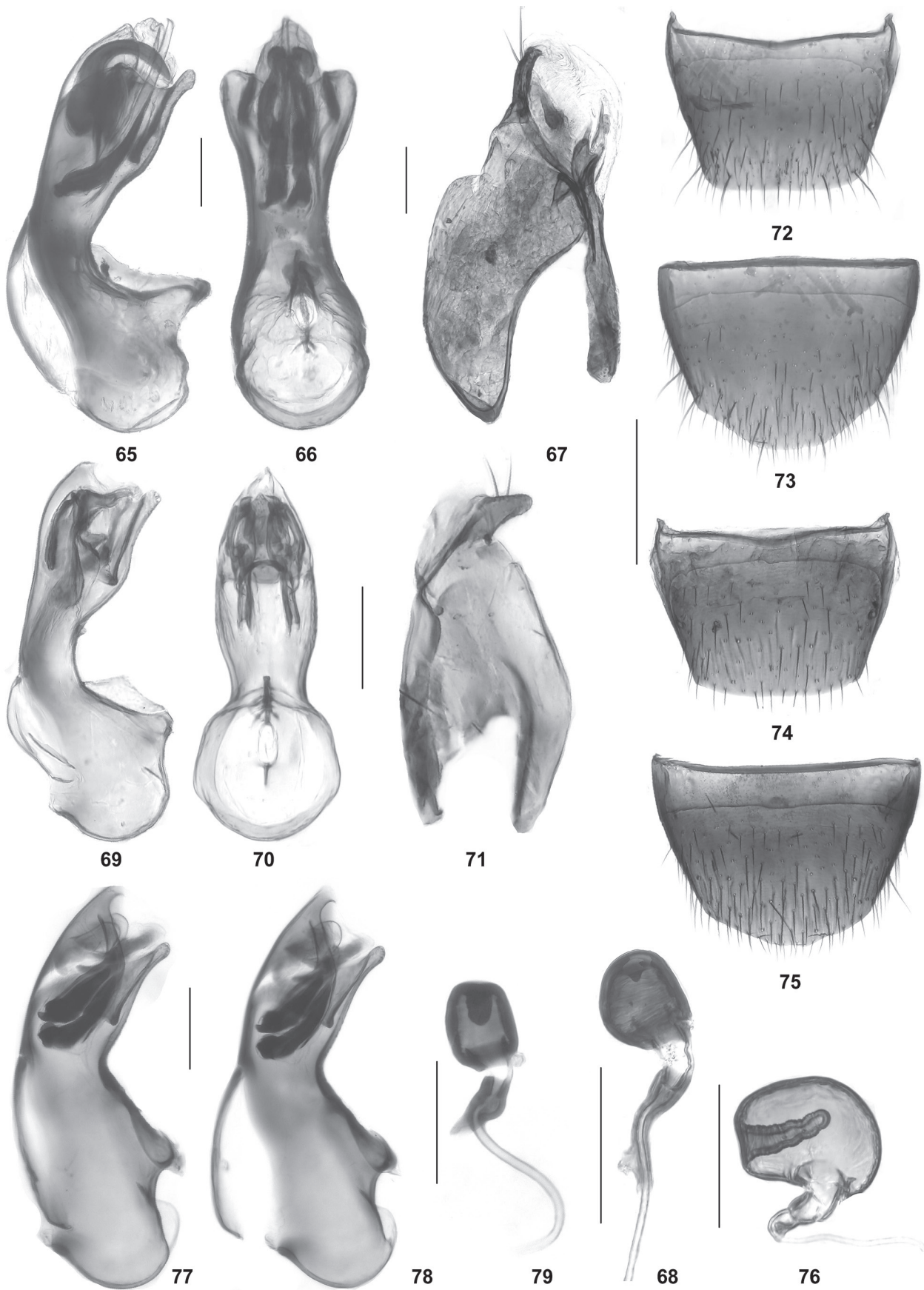
Figs 19–32: *Leptusa excisa* (19–25), *L. grandipennis* (26–29), *L. gonggana* (30), and *L. pathibarana* (31–32). 19–20, 26–27 – median lobe of aedeagus in lateral and in ventral view; 21, 28 – male tergite VIII; 22 – male sternite VII; 23, 29–30 – male sternite VIII; 24 – female sternite VIII; 25 – spermatheca; 31 – forebody; 32 – male abdomen. Scale bars: 31–32: 0.5 mm; 21–24, 28–30: 0.2 mm; 19–20, 25–27: 0.1 mm.



Figs 33–50: *Leptusa gonggana* (33–38), *L. habana* (39–44), and *L. auriculata* (45–50). 33–34, 39–40, 45–47 – median lobe of aedeagus in lateral and in ventral view; 35, 41, 48 – male tergite VIII; 36, 49 – female tergite VIII; 37, 43 – female sternite VIII; 38, 44, 50 – spermatheca; 42 – male sternite VIII. Scale bars: 35–37, 41–43, 48–49: 0.2 mm; 33–34, 38–40, 44–47, 50: 0.1 mm.



**Figs 51–64:** *Leptusa emeiana* (51–55), *L. auriculata* (56–57), *L. jizuica* (58–60), and *L. desculpens* (61–64). 51–52, 58, 61–62 – median lobe of aedeagus in lateral and in ventral view; 53 – paramere; 54, 59, 63 – male tergite VIII; 55–56, 60, 64 – male sternite VIII; 57 – female sternite VIII. Scale bars: 54–57, 59–60, 63–64: 0.2 mm; 51–53, 58, 61–62: 0.1 mm.



Figs 65–79: *Leptusa procera* (65–68), *L. monscangi* (69–76), and *L. pathibarana* (77–79). 65–66, 69–70, 77–78 – median lobe of aedeagus in lateral and in ventral view; 67, 71 – paramere; 72 – male tergite VIII; 73 – male sternite VIII; 74 – female tergite VIII; 75 – female sternite VIII; 68, 76, 79 – spermatheca. Scale bars: 72–75: 0.2 mm; 65–71, 76–79: 0.1 mm.

♂: posterior margin of tergite VIII distinctly concave to acutely excised (Fig. 21); posterior margin of sternite VII broadly concave, with fringe of very long setae (Fig. 22); posterior margin of sternite VIII angularly pointed in the middle (Fig. 23); median lobe of aedeagus approximately 0.38 mm long, and shaped as in Figs 19–20; apical lobe of paramere of similar shape as in *L. chinensis*.

♀: tergite VIII with weakly concave to truncate posterior margin (Fig. 24); posterior margin of sternite VIII convex; spermatheca (Fig. 25) not distinctive.

**Comparative notes:** *Leptusa excisa* resembles *L. chinensis* in habitus and punctuation (especially of the pronotum), but differs from this species by a usually distinctly bicoloured forebody, on average smaller body size, shorter and more coarsely punctate elytra, a more strongly concave posterior margin of the male tergite VIII, a less strongly concave posterior margin of the male sternite VII, and particularly by a significantly smaller aedeagus (*L. chinensis*: median lobe approximately 0.5 mm long). For illustrations of other *Aphaireleptusa* species known from mainland China see PACE (1997, 1999, 2001, 2010) and ASSING (2002, 2006)

**Distribution and natural history:** The specimens were sifted in two close localities in the southern slopes of Qinling Shan, Shaanxi, at altitudes between 1700 and 2600 m.

*Leptusa (Aphaireleptusa) grandipennis* spec. nov.

urn:lsid:zoobank.org:act:476EFE09-A2F0-4227-8F55-AEC9D658E159  
(Figs 2, 13, 26–29)

**Type material:** Holotype ♂: “CHINA: N-Sichuan [CH12-26], 70 km N Songpan, road S 301, above Gan lake, 33°15'26"N, 103°46'03"E, 2700 m, spruce forest with birch, litter, mushrooms, moss, and dead wood sifted, 12.VIII.2012, M. Schülke / Holotypus ♂ *Leptusa grandipennis* sp. n. det. V. Assing 2020” (MNB). Paratype ♂: same data as holotype, but leg. Wrase (cAss).

**Etymology:** The specific epithet (adjective) alludes to the remarkably large elytra (in relation to the head and pronotum).

**Description:** Body length 3.0–3.1 mm; length of forebody 1.4–1.5 mm. Habitus as in Fig. 2. Colouration: body blackish; legs pale-brown, with the metafemora darker brown and the tarsi yellowish; antennae with antennomeres I–IV reddish-yellow and V–XI dark-brown to blackish-brown.

Head (Fig. 13) weakly transverse; punctuation coarse, very dense, and somewhat umbilicate; interstices reduced to narrow ridges, with shallow microsculpture. Eyes large and strongly convex, longer than postocular region in lateral view. Antennae slender, gradually and weakly

incrassate apically, preapical antennomeres less than 1.5 times as broad as long.

Pronotum (Fig. 13) 1.2 times as broad as long and 1.2 times as broad as head; maximal width in anterior half; posterior angles angularly marked; punctuation coarse, very dense, asperate, and partly rugosely confluent, particularly along middle; interstices without microsculpture.

Elytra (Fig. 13) conspicuously large in relation to head and pronotum, approximately 1.2 times as long and nearly 1.4 times as broad as pronotum; punctuation coarse, dense, and defined.

Abdomen much narrower than elytra; punctuation distinct and rather dense, very coarse and very dense in anterior impressions of tergites III–V; interstices with very shallow, nearly obsolete microreticulation on tergites III–V and with very distinct microreticulation on tergites VI–VII; posterior margin of tergite VII with distinct palisade fringe.

♂: posterior margin of tergite VIII weakly concave in the middle (Fig. 28); posterior margin of sternite VII truncate, without pronounced fringe of long setae; posterior margin of sternite VIII angularly pointed in the middle (Fig. 29); median lobe of aedeagus small, only 0.33 mm long, and shaped as in Figs 26–27; apical lobe of paramere of similar shape as in *L. chinensis*.

♀: unknown.

**Comparative notes:** Among the species of the subgenus *Aphaireleptusa*, *L. grandipennis* is most similar to *L. chinensis*, from which it differs by much more slender antennae, much larger and more prominent eyes, a relatively smaller and more slender head and pronotum, larger and longer elytra (in relation to the pronotum), confluent punctuation of the pronotum, and a significantly smaller aedeagus (*L. chinensis*: median lobe approximately 0.5 mm long). For illustrations of other *Aphaireleptusa* species known from mainland China see PACE (1997, 1999, 2001, 2010) and ASSING (2002, 2006).

**Distribution and natural history:** The type locality is situated to the north of Songpan, Sichuan. The specimens were sifted from litter in a forest with dominant spruce and interspersed birch at an altitude of 2700 m.

*Leptusa (Aphaireleptusa) gonggana* spec. nov.

urn:lsid:zoobank.org:act:063A3FD3-32D8-4F48-AA8A-5AB12CF1A686  
(Figs 4, 14, 30, 33–38)

**Type material:** Holotype ♂: “P.R. CHINA, Sichuan, NE slope Gongga Shan, N29°50'05" E102°02'53", 11.vi.2011, 3019 m, sift15, V. Grebennikov / Holotypus ♂ *Leptusa gonggana* sp. n. det. V. Assing 2020” (CAS). Paratypes: 2 exs.: same data as holotype (CNC, cAss); 1 ex.: “P.R. CHINA, Sichuan, NE slope Gongga Shan, N29°53'23" E102°01'31", 8.vi.2011, 3886 m, sift13, V. Grebennikov” (CNC); 1 ex.: “P.R. CHINA, Sichuan, NE slope Gongga

Shan, N29°52'10" E102°02'01", 12.vi.2011, 3620 m, sift16, V. Grebennikov" (CNC); 1 ex.: "P.R. CHINA, Sichuan, NE slope Gongga Shan, N29°47'49" E102°03'46", 14.vi.2011, 2684 m, sift18, V. Grebennikov" (cAss); 1 ex.: "P.R. CHINA, Sichuan, NE slope Gongga Shan, N29°50'50" E102°02'28", 18.vi.2011, 3170 m, sift21, V. Grebennikov" (cAss).

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

**Description:** Body length 2.5–2.9 mm; length of fore-body 1.2–1.3 mm. Habitus as in Fig. 17. Colouration: body black; legs reddish; antennae blackish-brown with the basal three antennomeres reddish.

Head (Fig. 18) transverse; punctuation moderately coarse, dense, moderately umbilicate; interstices narrower than diameter of punctures, with microsculpture. Eyes at least as long as postocular region in lateral view. Antenna slender, gradually and weakly incrassate apically, preapical antennomeres approximately 1.5 times as broad as long.

Pronotum (Fig. 18) 1.20–1.25 times as broad as long and approximately 1.25 times as broad as head; maximal width in anterior half; lateral margins sinuate in posterior half; posterior angles angularly marked; punctuation dense, moderately coarse, and somewhat asperate, weakly defined; interstices with microreticulation.

Elytra (Fig. 18) approximately 0.9 times as long as pronotum; punctuation coarse, rather dense, and defined; interstices with very shallow microreticulation. Hind wings present or reduced to short stubs.

Abdomen slightly broader than elytra; punctuation fine and moderately dense, coarse and dense in anterior impressions of tergites III–VI; interstices with microreticulation; posterior margin of tergite VII with palisade fringe; tergite VII without sexual dimorphism.

♂: tergite VIII (Fig. 19) with weakly concave posterior margin; sternite VII posteriorly broadly and distinctly concave, with long marginal setae; posterior margin of sternite VIII obtusely angled in the middle (Fig. 20); median lobe of aedeagus approximately 0.35 mm long, shaped as in Figs 21–22; apical lobe of paramere of similar shape as in *L. chinensis*.

♀: tergite VIII (Fig. 23) with truncate posterior margin; posterior margin of sternite VIII broadly, obtusely angled in the middle (Fig. 24); spermatheca (Fig. 16) not distinctive.

**Comparative notes:** *Leptusa gonggana* is reliably distinguished from the similar *L. gansuensis* only by a smaller aedeagus of different shape (*L. gansuensis*: median lobe of aedeagus approximately 0.45 mm long). For illustrations of *L. gansuensis* see PACE (1997).

**Distribution and natural history:** The specimens were sifted in several close localities in Gongga Shan, West Sichuan, at altitudes of 2680–3890 m.

*Leptusa (Aphaireleptusa) habana* spec. nov.

urn:lsid:zoobank.org:act:217C5415-9901-4E13-8DD8-3F8AEA4CC8C1

(Figs 9, 15, 39–44)

**Type material:** Holotype ♂: "CHINA, Yunnan, Haba Shan, N27°21'01", E100°05'44", 4072 m, 28.vi.2012, sift35, V. Grebennikov / Holotypus ♂ *Leptusa habana* sp. n. det. V. Assing 2020" (CAS). Paratypes: 16 exs.: same data as holotype (CNC, cAss); 1 ex.: "CHINA, Yunnan, Haba Shan, N27°20'54", E100°04'36", 4222 m, 28.vi.2012, sift35, V. Grebennikov" (CNC); 3 exs.: "CHINA, Yunnan, Haba Shan, N27°20'58", E100°05'58", 19.vi.2012, 4114 m, sift24, V. Grebennikov" (CNC); 2 exs.: "CHINA, Yunnan, Haba Shan, N27°21'20", E100°06'36", 19.vi.2012, 3826 m, sift25, V. Grebennikov" (CNC); 2 exs.: "CHINA, Yunnan, Haba Shan, N27°21'01", E100°05'44", 21.vi.2012, 4072 m, sift26, V. Grebennikov" (CNC, cAss); 2 exs.: "CHINA, Yunnan, Haba Shan, N27°20'47", E100°05'33", 27.vi.2012, 4154 m, sift32, V. Grebennikov" (CNC).

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

**Description:** Body length 2.5–3.3 mm; length of fore-body 1.2–1.4 mm. Habitus as in Fig. 9. Colouration: body blackish-brown to black; legs reddish to dark-reddish; antennae brown with the basal three antennomeres reddish.

Head (Fig. 15) transverse; punctuation moderately coarse, dense, not umbilicate; interstices narrower than diameter of punctures, with microsculpture. Eyes approximately as long as postocular region in lateral view. Antenna moderately slender, gradually and moderately incrassate apically, preapical antennomeres approximately 1.5 times as broad as long.

Pronotum (Fig. 15) 1.2–1.3 times as broad as long and approximately 1.3 times as broad as head; maximal width in anterior half; posterior angles weakly marked; punctuation dense and fine; interstices with distinct microreticulation.

Elytra (Fig. 15) 0.65–0.70 times as long as pronotum; punctuation similar to that of head; interstices with microsculpture. Hind wings completely reduced.

Abdomen broader than elytra; tergites III–VI with anterior impressions, that of tergite VI slightly shallower than those of tergites III–V; punctuation fine and rather dense; interstices with shallow microreticulation; posterior margin of tergite VII with narrow rudiment of a palisade fringe; tergite VII without sexual dimorphism.

♂: tergite VIII (Fig. 41) with concave to truncate posterior margin; sternite VII posteriorly concave, with long marginal setae; posterior margin of sternite VIII convexly produced in the middle (Fig. 42); median lobe of aedeagus approximately 0.45 mm long, shaped as in Figs 39–40; apical lobe of paramere of similar shape as in *L. chinensis*.

♀: tergite VIII with truncate to weakly convex posterior margin; posterior margin of sternite VIII weakly produced in the middle (Fig. 43); spermatheca (Fig. 44) not distinctive.

**Comparative notes:** Among the Chinese representatives of the subgenus *Aphaireleptusa*, *L. habana* is most similar to *L. xuemontis* and *L. turgida*. It differs from them as follows:

- from *L. xuemontis* by larger eyes, finer punctation of the forebody, and a slightly smaller aedeagus with a much less pronounced median projection of the ventral process (lateral view);
- from *L. turgida* by longer, darker, and more massive antennae and by a larger aedeagus of slightly different shape (*L. turgida*: median lobe of aedeagus approximately 0.4 mm long).

For illustrations of *L. xuemontis* and *L. turgida* see PACE (2001) and ASSING (2006), respectively.

**Distribution and natural history:** The specimens were sifted in several close localities in Haba Shan, North Yunnan, at altitudes of 3820–4220 m.

*Leptusa (Aphaireleptusa) auriculata* spec. nov.

urn:lsid:zoobank.org:act:1812AE30-52FF-498D-B8C2-D600DCAB2724

(Figs 3, 16, 45–50, 56–57)

**Type material:** Holotype ♂: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°39'54.4", E100°05'53.0", 15.v.2010, 3991 m, sifting14, V. Grebennikov / Holotypus ♂ *Leptusa auriculata* sp. n. det. V. Assing 2020” (CAS). Paratypes: 28 exs.: same data as holotype (CNC, cAss); 15 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'24.1", E100°05'57.6", 17.v.2010, 3806 m, sifting15, V. Grebennikov” (CNC, cAss); 40 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'14.7", E100°06'12.0", 17.v.2010, 3827 m, sifting16, V. Grebennikov” (CNC, cAss); 21 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'07.6", E100°06'12.9", 18.v.2010, 3887 m, sifting18, V. Grebennikov” (CNC, cAss); 17 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°39'54.7", E100°06'04.5", 19.v.2010, 3815 m, sifting19, V. Grebennikov” (CNC, cAss); 5 exs.: “CHINA, Yunnan, Cang Shan at Dali, N25°40'12", E100°06'10", 3740 m, 05.vii.2011, sift37, V. Grebennikov” (CNC, cAss); 5 exs. [most likely mislabeled]: “CHINA, Sichuan, Emei Shan, N29°32'48.4" E103°20'06.3", 2342 m, 17.vi.2010, sifting36, V. Grebennikov” (CNC, cAss).

**Etymology:** The specific epithet is an adjective derived from the Latin noun *auricula* (diminutive of *auris*: ear) and alludes to the shapes of the apical internal structures of the aedeagus.

**Description:** Body length 2.6–3.2 mm; length of forebody 1.2–1.4 mm. Habitus as in Fig. 3. Colouration: forebody reddish-brown to dark-brown, often with the head at least partly darker; abdomen with segments III–IV reddish-brown to blackish, V–VII blackish, and VIII–X dark-yellow to reddish; legs and antennae reddish.

Head (Fig. 16) transverse; punctation coarse, dense, and umbilicate; interstices narrower than diameter of punctures, with shallow microsculpture. Eyes slightly shorter than postocular region in lateral view. Antennae slender, gradually and moderately incrassate apically, preapical antennomeres approximately 1.5 times as broad as long.

Pronotum (Fig. 16) 1.3–1.4 times as broad as long and approximately 1.3 times as broad as head; maximal width slightly anterior to middle; posterior angles obtusely marked; punctation finer, shallower, and less defined than that of head; interstices with shallow microsculpture.

Elytra (Fig. 16) 0.70–0.75 times as long as pronotum; punctation dense and much coarser than that of pronotum. Hind wings completely reduced.

Abdomen broader than elytra; punctation distinct and rather dense; interstices with microreticulation; posterior margin of tergite VII with narrow rudiment of a palisade fringe; tergite VII without, tergite VIII with weakly pronounced sexual dimorphism.

♂: tergite VIII (Fig. 48) with weakly concave posterior margin; sternite VII posteriorly truncate or very weakly concave, with long marginal setae; posterior margin of sternite VIII convexly produced in the middle (Fig. 56); median lobe of aedeagus nearly 0.5 mm long, shaped as in Figs 45–47; apical lobe of paramere of similar shape as in *L. chinensis*.

♀: tergite VIII (Fig. 49) with weakly concave or truncate posterior margin; posterior margin of sternite VIII broadly and obtusely angled in the middle (Fig. 57); spermatheca (Fig. 50) not distinctive.

**Comparative notes:** Based on external characters (strongly transverse pronotum, coarsely punctate forebody), long marginal setae at the posterior margin of sternite VIII, and on the morphology of the aedeagus, *L. auriculata* is assigned to the subgenus *Aphaireleptusa*. It differs from other representatives of the subgenus recorded from mainland China by the combination of relatively pale colouration of the forebody and a bicoloured abdomen, a coarsely punctate forebody, and by the male sexual characters. For illustrations of other *Aphaireleptusa* species known from mainland China see PACE (1997, 1999, 2001, 2010) and ASSING (2002, 2006).

**Distribution and natural history:** The specimens were found by sifting litter in several close localities in Cang (Diancang) Shan, Northwest Yunnan, at high altitudes (3740–3990 m). The specimens bearing labels indicating

Emei Shan as the locality of collection were most likely mislabeled; for additional comments see the section on *L. emeiana*.

*Leptusa (Aphaireleptusa) gonggamontis* PACE, 1997

**Material examined: China: Sichuan:** 5 exs., Gongga Shan, NE-slope, 29°50'N, 102°03'E, 3020 m, sifted, 11.VI.2011, leg. Grebennikov (CNC, cAss); 4 exs., same data, but 29°51'N; 102°03'E, 3170 m, 9.VI.2011 (CNC, cAss); 1 ex., same data, but 29°48'N, 102°04'E, 2770 m, 6.VI.2011 (CNC); 8 exs., 29°51'N, 102°02'E, 3170 m, 18.VI.2011 (CNC, cAss); 7 exs., same data, but 29°52'N, 102°02'E, 3620 m, 12.VI.2011 (CNC, cAss); 3 exs., same data, but 29°48'N; 102°04'E, 2680 m, 14.VI.2011 (CNC, cAss); 1 ex., 29°55'N, 102°01'E, 4140 m, 13.VI.2011 (cAss); 2 exs., same data, but 29°51'N; 102°02'E, 3170 m, 21.VI.2011 (CNC, cAss); 3 exs., Ganzi Tibet. Aut. Pref., Luding Co., Erlangshan pass, 7 km SSE Luding, 29°51'N, 102°15'E, 2600 m, coniferous forest, litter sifted, 29.VI.1999, leg. Schülke (MNB, cAss).

The sole previously known specimens of this species are the holotypes of *L. gonggamontis* and *L. daxuemonitis* (junior synonym of *L. gonggamontis*), both collected in the same locality in Gongga Shan. The above material suggests that the species is rather common in this mountain at higher altitudes (2680–4140 m). As can be inferred from the record from Erlang Shan, *L. gonggamontis* is not endemic to Gongga Shan.

*Leptusa (Drepanoleptusa) rougemonti* PACE, 1997

**Material examined: China:** 11 exs., S-Gansu, N Chengxian, West Qinling Shan, 34°08'24"N, 105°46'43"E, 1750 m, moist valley with stream and ponds, meadow with *Artemisia*, 28.VII.2012, leg. Assing & Schülke (cAss, MNB); 1 ♂, S-Gansu, N Chengxian, West Qinling Shan, 34°10'20"N, 105°42'19"E, 1830 m, stream valley with secondary deciduous forest, moist litter sifted, 29.VII.2012, leg. Assing (cAss).

*Leptusa rougemonti* was originally described based on three males from "China, Shanxi, Nonwutai" (PACE 1997). The above specimens represent the first records since the original description and the first records from Gansu.

*Leptusa (Drepanoleptusa) pollicita* ASSING, 2010

**Material examined: China:** 1 ♂, Yunnan, Lincang Pref., Xue Shan, 11 km ENE Lincang, 23°55'N, 100°11'E, 2510 m, secondary pine forest with rhododendron, sifted, 10.IX.2009, leg. Schülke (MNB).

This species was described based on type material collected in Xue Shan and Laobie Shan, North Yunnan.

*Leptusa (Drepanoleptusa) jinfomontis* PACE, 2001

This species was originally assigned to the subgenus *Nesopisalia* PACE, 1992 (PACE 1992). The illustrations provided by PACE (2001) suggest, however, that it is very closely related to *L. discolor* and *L. emeiana* (see below) of the subgenus *Drepanoleptusa*.

*Leptusa (Drepanoleptusa) emplenotoides* ASSING, 2006

*Leptusa (Aphaireleptusa) zhongdianensis* PACE, 2010: 297; **syn. nov.**

The original description of *L. zhongdianensis* is based on a male holotype from "N-Yunnan, Zhongdian Co., 51 km SSE Zhongdian" and a male paratype from "W-Sichuan, Aba Tibetan Aut. Pref. Weizhou Co., Qionglai Shan, Wolong Valley, 69 km WSW Guanxian" (PACE 2010). As can be inferred from the illustrations of the highly distinctive aedeagus of *L. zhongdianensis* provided by PACE (2010), the type material is undoubtedly conspecific with *L. emplenotoides*. Hence the synonymy proposed above.

*Leptusa (Drepanoleptusa) calliceroides* ASSING, 2004

This species, which was previously listed as incertae sedis, is moved to *Drepanoleptusa* based on the resemblance of the internal structures of the aedeagus to those of *L. emplenotoides*.

*Leptusa (Drepanoleptusa) emeiana* spec. nov.

urn:lsid:zoobank.org:act:43EA4727-AFD3-4C04-826C-73ADCE6DAEFO  
(Figs 5, 51–55)

**Type material:** Holotype ♂: "CHINA, Sichuan, Emei Shan, N29°32'48.4", E103°20'06.3", 2342 m, 17.vi.2010, sifting36, V. Grebennikov / Holotypus ♂ *Leptusa emeiana* sp. n. det. V. Assing 2020" (CAS). Paratypes: 3 exs.: same data as holotype (CNC, cAss); 2 exs.: "P.R. CHINA, Sichuan, Emei Shan, N29°33.6' E103°20.6', 27.vi.–5.vii.2009, 1800–2400 m, siftings11–17 V. Grebennikov" (CNC, cAss); 1 ex.: "P.R. CHINA, Sichuan, Emei Shan, N29°30'46.5", E103°19'57.0", 14.vi.2010, 3035 m, sifting28, V. Grebennikov" (CNC); 2 exs.: "P.R. CHINA, Sichuan, Emei Shan, N29°30'54.2", E103°19'50.6", 14.vi.2010, 3055 m, sifting29, V. Grebennikov" (cAss); 2 exs.: "P.R. CHINA, Sichuan, Emei Shan, N29°32'37.3", E103°19'57.5", 18.vi.2010, 2440 m, sifting37, V. Grebennikov" (CNC); 1 ex.: "P.R. CHINA, Sichuan, Emei Shan, N29°33'51", E103°20'47", 23.v.2011, 1779 m, sift03,



V. Grebennikov" (CNC); 2 ♂♂, 1 ♀ [most likely mislabeled]: "P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'13.2", E100°07'54.8", 13.v.2010, 2728 m, sifting08, V. Grebennikov" (CAS, CNC, cAss).

**Comment:** The description was originally based only on the three specimens bearing labels indicating they were collected in Cang Shan. They were studied nearly ten years ago. Since the species was at that time assumed to be endemic to the Cang (Diancang) Shan, the specific epithet *cangica*, an adjective derived from the name of the mountain, was chosen, and one of the three specimens was designated as the holotype and labeled accordingly ("Holotypus ♂ *Leptusa cangica* sp. n. det. V. Assing 2012"). When the material from several localities in Emei Shan was made available only several years later, it appeared very likely that the specimens bearing labels indicating that they were collected in Diancang were in fact mislabeled. Identical confusion was observed for *Silusa edentula* ASSING, in press, and a reverse confusion seems to be true of *Leptusa auriculata* (see the section on that species).

**Etymology:** The specific epithet (adjective) is derived from the name of the mountain range where this species was first discovered.

**Description:** Body length 1.9–2.2 mm. Habitus as in Fig. 5. Colouration: body reddish, with abdominal segment VI and anterior portion of segment VII infuscate; legs and antennae pale-reddish.

Head weakly transverse; punctuation dense and shallow; interstices narrower than diameter of punctures, with very shallow microsculpture and glossy; eyes weakly convex and small, little more than half as long as postocular region in lateral view, approximately as large as antennomere I in cross-section. Antennae gradually and moderately incrassate apically, preapical antennomeres approximately twice as wide as long.

Pronotum 1.25–1.30 times as wide as long and 1.20–1.25 times as wide as head; maximal width in anterior half; posterior angles obtusely marked; punctuation finer and less defined than that of head; microsculpture pronounced.

Elytra approximately 0.7 times as long as, and noticeably narrower than pronotum; punctuation dense, much coarser than that of pronotum. Hind wings completely reduced.

Abdomen distinctly broader than elytra; punctuation fine and not very dense; interstices with shallow microsculpture; posterior margin of tergite VII without palisade fringe.

♂: tergite VII with or without minute median tubercle posteriorly; tergite VIII with truncate and somewhat serrate posterior margin (Fig. 54); sternite VIII (Fig. 55) obtusely angled posteriorly and with fringe of long thin marginal setae; median lobe of aedeagus 0.32–0.33 mm

long, shaped as in Figs 51–52; apical lobe of paramere short, abruptly narrowed apically (Fig. 53).

♀: tergite VIII of similar shape as in male; sternite VIII convex posteriorly; spermatheca not distinctive.

**Comparative notes:** The median lobe of the aedeagus somewhat resembles that of *L. discolor*, from which the new species is distinguished by numerous characters, particularly its smaller and relatively broader body, shorter antennae, a finer punctuation of the forebody, a relatively broader pronotum, a less parallel and broader abdomen with much finer and sparser punctuation, and by the different male sexual characters (much shorter and smaller tubercle on the male tergite VII, differently shaped male and female tergites and sternites VIII, different shape of the median lobe of the aedeagus). For illustrations of *L. discolor* see ASSING (2006b).

**Distribution and natural history:** According to the labels, the type material was sifted in one locality in Diancang (Cang) Shan (Yunnan) and several localities in Emei Shan (Sichuan). This suggests that this small and micropetrous species is remarkably widespread, provided that the specimens from Yunnan were not mislabeled; they were collected by V. Grebennikov only a month before some of the paratypes from Emei Shan. Therefore, the presence of this species in Diancang should be considered doubtful for the time being (see also the distribution section of *L. auriculata* above). The altitudes range from 1780 to 3055 m.

*Leptusa (Drepanoleptusa) jizuica* spec. nov.

urn:lsid:zoobank.org:act:D1844B8D-2B3B-4388-933D-F2F98883B6A6

(Figs 6, 17, 58–60)

**Type material:** Holotype ♂ [teneral]: "CHINA: Yunnan, Dali Bai Aut. Pref., Jizu Shan, summit plateau, 37 km NE Dali, 25°58'30"N, 100°21'36"E, 3150 m, mixed forest, sifted from litter, moss & mushrooms, 5.IX.2009, leg. M. Schülke [CH09-28] / Holotypus ♂ *Leptusa jizuica* sp. n. det. V. Assing 2020" (MNB).

**Etymology:** The specific epithet is an adjective derived from the name of the mountain where the holotype was collected.

**Description:** Body length 2.3 mm; length of forebody 1.0 mm. Habitus slender (Fig. 6). Colouration (note that the holotype is slightly teneral): head blackish-brown; pronotum brown; elytra dark-yellow with the scutellar region diffusely darker; abdomen pale-brown with tergite VI and the anterior portions of tergites V and VII darker; legs yellow; antennae pale-brown with the basal three antennomeres dark-yellow.

Head (Fig. 17) approximately as long as broad; punctuation very coarse and dense, interstices reduced to narrow ridges. Eyes longer than postocular region in lateral

view. Antenna slender; antennomeres IV weakly oblong, V–VI approximately as long as broad, VII–X increasing in width and increasingly transverse, and X barely 1.5 times as broad as long.

Pronotum (Fig. 17) approximately 1.3 times as broad as long and 1.25 times as broad as head; maximal width in anterior half; posterior angles obtusely marked; punctation as coarse and as dense as that of head.

Elytra (Fig. 17) slightly longer than pronotum; punctation as dense as, and even coarser than that of pronotum. Abdomen narrower than elytra; tergites III–V with anterior impressions densely and coarsely punctate; punctation on remainder of tergal surfaces moderately fine and moderately dense; interstices with distinct microsculpture; posterior margin of tergite VII with narrow palisade fringe.

♂: tergites VII and VIII unmodified (Fig. 59); posterior margin of sternite VIII obtusely produced in the middle (Fig. 60); median lobe of aedeagus (Fig. 58) approximately 0.25 mm long, with ventral process and internal structures of distinctive shapes; apical lobe of paramere rather short.

♀: unknown.

**Comparative notes:** This species is readily distinguished from all other congeners recorded from China by the distinctive shapes of the ventral process and the internal structures of the aedeagus and additionally by the combination of small size, slender habitus, and conspicuously coarse punctation of the forebody.

**Distribution and natural history:** The slightly teneral holotype was found in Jizu Shan, Northwest Yunnan, by sifting litter in a mixed forest at an altitude of 3150 m.

*Leptusa (Drepanoleptusa) desculpens* spec. nov.

urn:lsid:zoobank.org:act:A3342BAF-F31E-43E6-9636-8250A85FBD97  
(Figs 7, 18, 61–64)

**Type material:** Holotype ♂: “CHINA, Yunnan, SE Pingbian, 22°54'31"N, 103°41'44"E, 2100 m, primary subtropical broad-leaved forest, litter sifted, 27.VIII.2014, leg. M. Schülke [CH14-22] / Holotypus ♂ *Leptusa desculpens* sp. n. det. V. Assing 2020” (MNB). Paratype ♂: same data as holotype, but “28.VIII.2014, ... [CH14-22a]” (cAss).

**Etymology:** The specific epithet is the present participle of the Latin verb *desculpere* (to chisel) and alludes to the chisel-shaped internal structure of the aedeagus.

**Description:** Body length 2.1–2.4 mm; length of forebody 0.9–1.0 mm. Habitus as in Fig. 7. Colouration: forebody brown to dark-brown with the humeral angles and the posterior margins of the elytra reddish-yellow; legs yellowish; antennae brown with the basal three antennomeres and antennomere XI reddish.

Head (Fig. 18) approximately as long as broad; punctation very coarse and dense, interstices reduced to narrow ridges. Eyes shorter than postocular region in lateral view. Antenna incrassate apically; antennomeres IV weakly transverse, V–X increasing in width and increasingly transverse, and X approximately twice as broad as long.

Pronotum (Fig. 18) approximately 1.2 times as broad as long and 1.2 times as broad as head; maximal width in anterior half; posterior angles marked; punctation similar to that of head, but somewhat less coarse.

Elytra (Fig. 18) approximately 0.8 times as long as pronotum, extensively impressed; punctation very coarse, dense and asperate. Hind wings reduced.

Abdomen approximately as broad as elytra; tergites III–V with anterior impressions densely and coarsely punctate; punctation distinct and moderately fine, dense on anterior tergites and sparser on posterior tergites; interstices glossy, without distinct microsculpture; posterior margin of tergite VII without palisade fringe; tergites VII and VIII sexually dimorphic.

♂: tergites VII and VIII each with oblong postero-medial tubercle (Fig. 63); posterior margin of sternite VIII obtusely produced in the middle (Fig. 64); median lobe of aedeagus approximately 0.3 mm long, shaped as in Figs 61–62; internal structures of distinctive shapes; apical lobe of paramere distinctly oblong.

♀: unknown.

**Comparative notes:** This species is readily distinguished from all other congeners recorded from China by the distinctive internal structures of the aedeagus and additionally by the combination of small size, slender habitus, and conspicuously coarse punctation of the forebody.

**Distribution and natural history:** *Leptusa desculpens* is currently the sole representative of the genus known from Southeast Yunnan. The specimens were sifted from litter in a primary broad-leaved forest in Dawei Shan, Yunnan, at an altitude of 2100 m.

*Leptusa (Chondrelytropisalia) procera* spec. nov.

urn:lsid:zoobank.org:act:C3881039-6537-452F-974C-48BDAFD02762  
(Figs 8, 65–68)

**Type material.** Holotype ♂: “CHINA [26] – N-Sichuan N Songpan, 33°15'26"N, 103°46'03"E, 2700 m, spruce forest with birch, 12.VIII.2012, V. Assing / Holotypus ♂ *Leptusa procera* sp. n. det. V. Assing 2020” (cAss). Paratypes: 2 ♂♂, 8 ♀♀ [1 ♀ with additional label “Laboulbeniales n. 3767, Walter Rossi”]: same data as holotype (cAss); 12 exs.: “CHINA: N-Sichuan [CH12-26.], 70 km N Songpan, road S 301, above Gan lake, 33°15'26"N, 103°46'03"E, 2700 m, spruce forest with birch, litter, mushrooms, moss, and dead wood sifted, 12.VIII.2012, M. Schülke” (MNB, cAss); 1 ex., same data, leg. Wrase (MNB).

**Etymology:** The specific epithet (Latin, adjective: slim, slender) alludes to the conspicuously slender habitus of this species.

**Description:** Body length 3.4–4.3 mm; length of forebody 1.5–1.9 mm. Habitus (Fig. 8) very slender. Colouration: body reddish to reddish-brown with the head dark-brown to blackish-brown and with most of tergite VI and the anterior portion of tergite VII blackish; legs and antennae reddish.

Head approximately as long as broad or weakly oblong; punctation moderately coarse and dense; interstices without microsculpture. Eyes small, composed of approximately 30 ommatidia, less than half as long as postocular region in dorsal view. Antenna 1.1–1.3 mm long, weakly incrassate apically; antennomere IV weakly oblong; antennomere X slightly more than 1.5 times as broad as long.

Pronotum weakly transverse, 1.15–1.20 times as broad as long and 1.15–1.20 times as broad as head, broadest anteriorly and strongly tapering posteriorly, strongly convex in cross-section; lateral margins weakly sinuate near posterior angles in dorsal view; punctation denser than that of head and somewhat granulose; interstices without microsculpture.

Elytra approximately 0.9 times as long as pronotum; punctation very coarse and distinctly granulose, much coarser than that of head and pronotum; interstices without microsculpture. Hind wings completely reduced.

Abdomen significantly broader than elytra, broadest at segment VI, without microsculpture; tergites III–VI with pronounced, deep anterior impressions; anterior impressions of tergites III–V in the middle with distinct, densely and coarsely punctate elevation, laterally nearly smooth; discs of tergites III–V with distinct and weakly granulose punctation; anterior impression of tergite VI with very coarse punctures; disc of tergite VI and all of tergites VII–VIII with moderately sparse and very fine punctation; posterior margin of tergite VII with narrow rudiment of a palisade fringe.

♂: tergite VII without keel; tergite VIII without keel or tubercle, posterior margin weakly concave in the middle; posterior margin of sternite VIII convex, with long thin marginal setae; median lobe of aedeagus approximately 0.55 mm long, shaped as in Figs 65–66, with pair of pronounced claw-shaped apical internal structures; paramere slightly longer than median lobe and shaped as in Fig. 67.

♀: posterior margin of tergite VIII of similar shape as in male or with truncate posterior margin; sternite VIII with convex posterior margin; spermatheca small, shaped as in Fig. 68.

**Comparative notes:** *Leptusa procera* is readily distinguished from *L. tectusoides*, the only other representative of the subgenus *Chondrelytropisalia* known from Sichuan, by numerous external characters alone:

significantly larger body size (*L. tectusoides*: body length 3.1 mm; length of forebody 1.2 mm), much longer and more massive antennae (*L. tectusoides*: length of antennae 0.8 mm), much more coarsely and granulosely punctate and longer elytra, the medially elevated and differently punctate anterior impressions of the abdominal tergites III–V. Aside from these differences, *L. procera* is distinguished from *L. tectusoides* by a much larger aedeagus with internal structures of completely different shapes. For illustrations of *L. tectusoides* see ASSING (2002).

**Distribution and natural history:** The type locality is situated to the north of Songpan in North Sichuan, China. The specimens were sifted in a spruce forest with interspersed birch at an altitude of 2700 m. Two of the paratypes were infested with *Monoicomyces* sp., Laboulbeniales (det. W. Rossi).

*Leptusa (Heteroleptusa) flagellata* ASSING, 2002

**Material examined. China:** 1 ♀, Shaanxi, Qinling Shan, pass on road Zhouzhi–Foping, 105 km SW Xi'an, 33°44'N, 107°59'E, 1990 m, small stream valley with mixed deciduous forest and bamboo undergrowth, sifted, 2–4.VII.2001, leg. Schülke (MNB); 1 ♀, Shaanxi, Qinling Shan, 52 km SSW Zhouzhi, 33°44'N, 107°58'E, 1990 m, stream valley with mixed forest, 25.VII.2012, leg. Schülke (cAss).

The above females were collected at or near the type locality.

*Leptusa (Yunnaleptusa) recta* ASSING, 2006

**Material examined: China:** 2 exs., Yunnan, Nujiang Lisu Aut. Pref., Gaoligong Shan, valley 18 km W Gongshan, 27°48'N; 98°30'E, 3020 m, mixed forest, litter sifted, 7.VI.2007, leg. Schülke (MNB, cAss).

The original description is based on a unique male collected close to the locality where the above specimens were found.

*Leptusa (Yunnaleptusa) armatissima* ASSING, 2008

**Material examined: China:** 1 ♂, Diancang Shan, W Dali, 25°42'N, 100°06'E, 2960 m, litter sifted, 6.IX.2009, leg. Schülke (MNB).

The known distribution of this species is confined to Diancang Shan, Northwest Yunnan.

*Leptusa (Yunnaleptusa) monscangi* spec. nov.

urn:lsid:zoobank.org:act:2B2ECDE0-93FD-42BB-BF27-6D7C7B8E38BC

(Figs 19, 69–76)

**Type material.** Holotype ♂: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'24.1", E100°05'57.6", 17.v.2010, 3806 m, sifting15, V. Grebennikov / Holotypus ♂ *Leptusa monscangi* sp. n. det. V. Assing 2020” (CNC). Paratypes: 12 exs.: same data as holotype (CNC, cAss); 4 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°39'54.4", E100°05'53.0", 15.v.2010, 3991 m, sifting14, V. Grebennikov” (CNC, cAss); 7 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'01.9", E100°05'45.5", 15.v.2010, 4063 m, sifting13, V. Grebennikov” (CNC, cAss); 7 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'14.7", E100°06'12.0", 17.v.2010, 3827 m, sifting16, V. Grebennikov” (CNC, cAss); 4 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°40'07.6", E100°06'12.9", 18.v.2010, 3887 m, sifting18, V. Grebennikov” (CNC, cAss); 11 exs.: “P.R. CHINA, Yunnan, E slope Cangshan at Dali, N25°39'54.7", E100°06'04.5", 19.v.2010, 3815 m, sifting19, V. Grebennikov” (CNC, cAss); 2 exs.: exs.: “CHINA, Yunnan, Cang Shan at Dali, N25°40'12", E100°06'10", 3740 m, 05.vii.2011, sift37, V. Grebennikov” (CNC, cAss).

**Etymology:** The specific epithet is a noun composed of the Latin noun *mons* (mountain) and the genitive of the name of the mountain where this species may be endemic.

**Description:** Body length 1.6–2.2 mm; length of forebody 0.8–1.0 mm. Habitus as in Fig. 19. Colouration: head reddish to blackish-brown; pronotum and elytra reddish; abdomen with segments III–IV reddish to blackish, V–VII blackish, and VIII–X reddish; legs and antennae reddish.

Head transverse; punctuation fine and rather sparse; interstices with shallow microsculpture. Eyes slightly more than half as long as postocular region in lateral view. Antennae moderately slender, gradually and moderately incrassate apically, preapical antennomeres approximately 1.5 times as broad as long.

Pronotum approximately 1.3 times as broad as long and approximately 1.3 times as broad as head; maximal width slightly anterior to middle; posterior angles weakly marked, nearly obsolete; punctuation fine and rather dense; microsculpture more distinct than that of head.

Elytra approximately 0.75 times as long as pronotum; punctuation dense, more distinct than that of head and pronotum. Hind wings completely reduced.

Abdomen broader than elytra; punctuation very fine and moderately dense; interstices with shallow microsculpture; posterior margin of tergite VII with narrow rudiment of a palisade fringe; tergites VII and VIII without pronounced sexual dimorphism; posterior margin of tergite VIII with weakly concave to weakly convex posterior margin (Figs 72, 74).

♂: posterior margin of sternite VIII convex (Fig. 73); median lobe of aedeagus approximately 0.35 mm long, shaped as in Figs 69–70; apical lobe of paramere moderately long and moderately slender (Fig. 71).

♀: posterior margin of sternite VIII convex (Fig. 75); spermatheca (Fig. 76) with long and slender apical invagination and with short proximal portion.

**Comparative notes:** As can be inferred from the similar external and sexual characters (structure of median lobe of aedeagus and paramere; shape of spermatheca; shapes of male and female sternite VIII; habitus and colouration), this species is undoubtedly very closely allied to *L. recta* and *L. curvata*, both of them endemic to individual mountains in North Yunnan. It is reliably distinguished from them only by the structure of the median lobe of the aedeagus. For illustrations of *L. curvata* and *L. recta* see ASSING (2006).

**Distribution and natural history:** The specimens were found by sifting litter in several close localities in Cang (Diancang) Shan, Northwest Yunnan, at high altitudes (3740–4060 m), in nearly all localities together with *L. auriculata*.

## Caucasus region

*Leptusa (Leptusa) pulchella* (MANNERHEIM, 1830)

**Material examined: Russia:** 3 exs., Krasnodarskiy Kray, Mezmay env., Temnolesskaya, 750 m, 12.VI.1999, leg. Smetana (CNC, cAss); 2 ex., same data, but 850 m, 8–9.VI.1999 (CNC, cAss); 2 exs., Adygeia, 14 km NE Mt. Fisht, Lagonaki Plateau, 1700 m, 16.VI.1999, leg. Smetana (CNC, cAss).

This species is widespread and common in nearly all of the West Palaearctic region. In the Caucasus region, it had been reported only from Georgia and Armenia (ASSING 2017). The above specimens represent the first records from the Russian South European territory.

*Leptusa (Neopisalia) venusta* (HOCHHUTH, 1849)

**Material examined: Russia:** 2 exs., Krasnodarskiy Kray, Adler, Chvizhepse env., 43°38'32"N, 40°04'45"E, 300 m, beech forest, 4.VII.2014, leg. Kovalev (cKov); 13 exs., Krasnodarskiy Kray, Mezmay env., Temnolesskaya, 750 m, 12.VI.1999, leg. Smetana (CNC, cAss); 2 exs., same data, but 7.VI.1999 (CNC, cAss); 2 exs., same data, but 850 m, 9.VI.1999 (CNC, cAss); 2 exs., Krasnodarskiy Kray, Mezmay env., Guama, 950–1000 m, 11.VI.1999, leg. Smetana (CNC, cAss); 3 exs., Adygeia, 14 km NE Mt. Fisht, Lagonaki Plateau, 1700 m, 16.VI.1999, leg. Smetana (CNC, cAss); 1 ex., same data, but 14.VI.1999

(CNC); 3 exs., Adygeia, 12 km NE Mt. Fisht, Lagonaki Plateau, 1800 m, 14.VI.1999, leg. Smetana (CNC).

*Leptusa venusta* is the most common of the Caucasian species of the genus. Its distribution is mapped in ASSING (2017).

*Leptusa (Neopisalia) gibbera* ASSING, 2011

**Material examined: Russia:** 2 exs., Krasnodarskiy Kray, Mezmay env., Temnolesskaya, 750 m, 12.VI.1999, leg. Smetana (CNC, cAss); 1 ex., same data, but but 850 m, 9.VI.1999 (CNC); 1 ex., Krasnodarskiy Kray, Mezmay, 800m, 18.VI.1999, leg. Smetana (CNC); 1 ex., Adygeia, 14 km NE Mt. Fisht, Lagonaki Plateau, 1700 m, 16.VI.1999, leg. Smetana (cAss); 4 exs., Adygeia, 12 km NE Mt. Fisht, Lagonaki Plateau, 1800 m, 14.VI.1999, leg. Smetana (CNC, cAss).

The above material represents the first records since the original description, which is based on five type specimens from the environs of Temnolesskaya in the Krasnodar region.

*Leptusa (Neopisalia) microphthalma* REITTER, 1887

**Material examined: Russia:** 1 ex., Krasnodarskiy Kray, Adler, Chvizhepse env., 43°38'32"N, 40°04'45"E, 300 m, beech forest, 4.VII.2014, leg. Kovalev (cAss); 1 ex., same data, but 10.VII.2014 (cKov); 2 exs., Krasnodarskiy Kray, Adler, Kazachiy Brod env., 43°31'39"N, 39°59'05"E, 270 m, *Buxus* litter, 19.VII.2014, leg. Kovalev (cKov, cAss); 2 exs., Krasnodarskiy Kray, Mezmay, 800 m, 18.VI.1999, leg. Smetana (CNC, cAss); 2 exs., Krasnodarskiy Kray, Mezmay env., Temnolesskaya, 850 m, 19.VI.1999, leg. Smetana (CNC); 1 ex., same data, but 750 m, 12.VI.1999 (cAss); 73 exs., Krasnodarskiy Kray, Mezmay env., Guama, 950–1000 m, 11.VI.1999, leg. Smetana (CNC, cAss); 6 exs., same data, but 1000 m, 10.VI.1999 (CNC, cAss); 2 exs., Krasnodarskiy Kray, Lazarevsky district, Soloniki env., 300 m, 6.VI.2017, leg. Gontarenko (cGon); 1 ex., same data, but 550 m, 4.VI.2017 (cGon); 4 exs., same data, but 400 m, 10.VI.2017 (cGon, cAss); 1 ex., Krasnodarskiy Kray, Tuapse district, Olginka env., Saray Gora, 400 m, 20.V.2017, leg. Gontarenko (cGon); 1 ex., Krasnodarskiy Kray, Tuapse district, Olginka env., Agria, 60 m, 29.V.2017, leg. Gontarenko (cAss); 6 exs., Krasnodarskiy Kray, Tuapse district, Krivenkovskoe env., 600 m, 26.V.2017, leg. Gontarenko (cGon, cAss).

*Leptusa microphthalma* is not uncommon in the West Caucasus; for a distribution map see ASSING (2017).

*Leptusa (Neopisalia) abchasica* BERNHAUER, 1936

**Material examined: Russia:** 7 exs., Krasnodarskiy Kray, Adler, Kazachiy Brod env., 43°31'39"N, 39°59'05"E, 270 m, *Buxus* litter, 19.VII.2014, leg. Kovalev (cKov, cAss).

This species was previously known only from the type locality in Abkhazia. The above specimens represent the first record from Russia.

*Leptusa (Neopisalia) svanetica* ASSING, 2017

**Material examined: Georgia:** 8 exs., Kvemo Svaneti, NE-slope of Egrisskiy mountain range, between Lakhashuri and Lamanashuri rivers, 42°44'N, 42°44'E, 1250 m, 23.IV.2016, leg. Khachikov (cKov, cAss); 2 exs., Zemo Svaneti, Egrisskiy mountain range, NE-slopes of Oteपुरa-Dudi mountain, left bank of Tkheishi river, Kvemo-Vedi env., 42°54'N, 42°12'E, 910 m, 15.IV.2016, leg. Khachikov (cAss).

The above material represents the first records since the original description, which is based on three specimens from a locality in Kvemo Svaneti.

*Leptusa (Roubaliusa) storkani* ROUBAL, 1917

**Material examined: Georgia:** 7 exs., Kvemo Svaneti, NE-slope of Egrisskiy mountain range, between Lakhashuri and Lamanashuri rivers, 42°44'N, 42°44'E, 1250 m, 23.IV.2016, leg. Khachikov (cKov, cAss). **Russia:** 55 exs., Adygeia, 14 km NE Mt. Fisht, Lagonaki Plateau, 1700 m, 16.VI.1999, leg. Smetana (cAss, CNC); 6 exs., Adygeia, 12 km NE Mt. Fisht, Lagonaki Plateau, 1800 m, 14.VI.1999, leg. Smetana (cAss, CNC); 4 exs., Krasnodarskiy Kray, Temnolesskaya near Mezmai [= Mezmay], 750 m, 12.VI.1999, leg. Smetana (CNC); 1 ex., same data, but 800 m, 8.VI.1999 (CNC); 1 ex., Krasnodarskiy Kray, Mezmay, 800 m, 18.VI.1999, leg. Smetana (CNC); 2 exs., Krasnodarskiy Kray, Mezmay env., Guama, 950–1000 m, 11.VI.1999, leg. Smetana (CNC).

*Leptusa storkani* is common in the western Greater Caucasus; its distribution is mapped in ASSING (2017).

*Leptusa (Stictopisalia) caucasica* EPELSHEIM, 1878

**Material examined: Georgia:** 8 exs., Kvemo Svaneti, NE-slope of Egrisskiy mountain range, between Lakhashuri and Lamanashuri rivers, 42°44'N, 42°44'E, 1250 m, 23.IV.2016, leg. Khachikov (cKov, cAss).

*Leptusa caucasica* is distributed in parts of both the Greater and the Lesser Caucasus; its distribution is mapped in ASSING (2019).

*Leptusa (Dysleptusa) fuliginosa* (AUBÉ, 1850)

**Material examined.** Russia: 1 ♀, Krasnodarskiy Kray, Adler, Kazachiy Brod env., 43°31'39"N, 39°59'05"E, 270 m, *Buxus* litter, 19.VII.2014, leg. Kovalev (cAss); 1 ♀, Krasnodarskiy Kray, Mezmay env., Temnolesskaya, 800 m, 8.VI.1999, leg. Smetana (CNC).

This species is one of the most widespread Caucasian species (ASSING 2019). For a distribution map see ASSING (2017).

## Himalayan region

*Leptusa (Chondrelytropisalia) pathibarana* spec. nov.

urn:lsid:zoobank.org:act:ED968EFF-8133-4318-992C-A4D401C04ADB  
(Figs 11, 31–32, 77–79)

**Type material:** Holotype ♂: “E-NEPAL, D: Taplejung, W-slope Pathibara 3000–3400 m, 14./16.V.2016, 27°26'20"N, 87°46'44"E, leg. J. Schmidt / Holotypus ♂ *Leptusa pathibarana* sp. n. det. V. Assing 2017” (NME). Paratypes: 2 exs.: same data as holotype (NME); 6 exs.: same data, but “E-slope” [probably erroneous, since the coordinates are identical to those of the holotype] (NME, cAss).

**Etymology:** The specific epithet is an adjective derived from the name of the mountain where the type locality is situated.

**Description:** Body length 3.1–3.5 mm; length of forebody 1.4–1.5 mm. Habitus as in Fig. 11. Colouration: forebody reddish-brown to dark-brown; abdomen reddish-brown to blackish-brown, with the posterior margins of the tergites and the abdominal apex reddish to yellowish red; legs brown to dark-brown; antennae brown with antennomeres I–III and XI reddish.

Head (Fig. 31) approximately as long as broad; punctation coarse and dense; interstices narrower than diameter of punctures, with or without very shallow microsculpture visible only at high magnification. Eyes small, composed of approximately 30–40 ommatidia, approximately half as long as postocular region in dorsal view. Antenna 0.9–1.0 mm long, weakly incrassate apically; antennomere IV oblong; antennomere X approximately 1.5 times as broad as long.

Pronotum (Fig. 31) weakly transverse, approximately 1.1 times as broad as long and 1.20–1.25 times as broad as head, strongly convex in cross-section; lateral margins sinuate near posterior angles in dorsal view; punctation distinct and dense, somewhat less coarse than that of head; interstices without microsculpture; pubescence long, pale, and sub-erect to erect.

Elytra (Fig. 31) 0.85–0.90 times as long as pronotum; punctation very coarse, much coarser than that of

head; interstices without microsculpture. Hind wings completely reduced.

Abdomen (Fig. 32) approximately as broad as elytra; tergites III–VI with pronounced, deep anterior impressions; punctation rather sparse and fine; interstices without microsculpture and very glossy; posterior margin of tergite VII with narrow rudiment of a palisade fringe; tergites VII and VIII with sexual dimorphism.

♂: tergite VII with marked, long and narrow median keel extending along at least the posterior half of tergite (Fig. 32); tergite VIII with weakly pronounced median keel in posterior portion, posterior margin distinctly concave in the middle and somewhat serrate (due to insertions of marginal setae); posterior margin of sternite VII indistinctly concave and with conspicuously long and dark marginal setae; posterior margin of sternite VIII obtusely pointed in the middle; median lobe of aedeagus approximately 0.42 mm long, shaped as in Figs 77–78; paramere slightly longer than median lobe, with short and broad apical lobe.

♀: posterior margin of tergite VIII weakly concave in the middle; sternite VIII with convex posterior margin; spermatheca small, shaped as in Fig. 79.

**Comparative notes:** The subgenus *Chondrelytropisalia* is currently represented by ten species and seven subspecies distributed in the Himalaya from Central Nepal to Sikkim and West Bengal, and in China (Yunnan, Sichuan, and Shaanxi provinces). *Leptusa pathibarana* is reliably distinguished from all of them by the shape of the median lobe of the aedeagus in lateral view. For illustrations of the sexual characters of other species recorded from East Nepal see PACE (1989) and ASSING (2011a).

**Distribution and natural history:** The type locality is situated in Mount Pathibara in the extreme northeast of Nepal, very close to the border with the Indian province Sikkim. The type specimens were collected at an altitude between 3000 and 3400 m.

## Other regions

*Leptusa (Dysleptusa) honshuica* ASSING, 2002

**Material examined:** Japan: 1 ♂, Hokkaido, Ebetsu city, Nopporo Virgin Forest, sifted, 5.V.2006, leg. Lackner (cAss).

This species was originally described based on a single male from a locality in Honshu (ASSING 2002). The above specimen represents the first record from Hokkaido.

*Leptusa (Aphaireleptusa) puthzi* Assing, 2002

**Material examined: Japan:** 3 exs., Honshu, Yamanashi Pref., pass Kitazawatoge, Ashiyasu-mura, 28.VII.–4.VIII.2001, leg. Ueno (MNB, cAss).

The original description is based on type specimens from Tochigi, Shizuoga, and Yamanashi prefectures. The above material was collected in the same locality as two paratypes.

*Leptusa (Eospisalia) lackneri* ASSING, 2011

**Material examined: South Korea:** 7 exs., Jeollanam-do, Jiri-san, around Nogodan peak, 35°17'36"N, 127°31'55"E, 1500 m, rocky slope of tourist trail with bushes, soil-washing 20 cm deep at rock base under tree, 15.IX.2010, leg. Makranczy & al.; 4 exs., same data, but "from grass roots, debris at stones, tufts, flotation; 3 exs.: same data, but "from grass roots and leaf litter at stones, sifting (24C)"; 2 exs., Gangwon-do, Seorak-san, 2 km W Misiryeong pass, rest station, 38°13'04"N, 128°25'12"E, forest with *Acer*, near stream, 600 m, soil-washing 25 cm deep at rocks, 10.IX.2010, leg. Makranczy & al. (material in HNHM, NIBR, cAss).

The above material is highly similar to the type material from Tsushima island (ASSING 2011b), but differs by a more robust body (no overlap), a distinctly bicoloured abdomen, coarser and more defined punctuation of the forebody, a more distinctly punctate abdomen, relatively longer elytra, and a slightly larger aedeagus. However, the shape and internal structures of the aedeagus are practically identical, so that the populations from South Korea are tentatively hypothesized to be conspecific with that of Tsushima Island.

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