

| | | | |
|---------------------|------|-----------|------------|
| Linzer biol. Beitr. | 42/2 | 1155-1167 | 19.12.2010 |
|---------------------|------|-----------|------------|

Three new species of *Leptusa* from Yunnan, with a catalogue of the *Leptusa* species recorded from China and Taiwan (Coleoptera: Staphylinidae: Aleocharinae)

V. ASSING

A b s t r a c t : Three species of *Leptusa* KRAATZ 1858 from Yunnan, China, are described and illustrated: *L. (Yunnaleptusa) zhemomontis* nov.sp. (Zhemuo Shan), *L. (Y.) hamulata* nov.sp. (Gaoligong Shan), and *L. (Drepanoleptusa) pollicita* nov.sp. (Liancang pref.). Additional records of four described and three undescribed species are reported from Yunnan. *Leptusa armatissima* ASSING 2008 is assigned to the subgenus *Yunnaleptusa* ASSING 2008. An updated catalogue of the *Leptusa* species recorded from China and Taiwan is provided. The *Leptusa* fauna of China and Taiwan now comprises 65 described species and subspecies in twelve subgenera.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, *Leptusa*, China, taxonomy, new species, additional records, new subgeneric assignment, catalogue.

1. Introduction

In the Palaearctic region, the speciose aleocharine genus *Leptusa* KRAATZ 1856 is represented by more than 350 species and numerous subspecies (ASSING 2009). The *Leptusa* fauna of China and Taiwan previously comprised 62 species in twelve subgenera (ASSING 2008). Five species were of doubtful subgeneric affiliations (ASSING 2002, 2006, 2008). Remarkably, the first species were discovered as late as 1991 (Taiwan) and 1997 (Chinese mainland) (PACE 1991, 1997).

The present contribution is based on material collected by Michael Schülke and David Wräse (both Berlin) during a field trip to Yunnan in September 2009. This material included nine species, four of them described recently and six undescribed. Three of the undescribed species are represented exclusively by females. Since the male sexual characters are essential for the identification of *Leptusa* species, only the three species of which males are available are described below.

Including the three species described in the present paper, the *Leptusa* fauna of China and Taiwan now includes 65 species and subspecies in twelve subgenera. A total of 19 (sub-) species is known from Taiwan (all of them endemic). The provinces with the highest diversity in the Chinese mainland are Yunnan (21 species), Sichuan (13 species), and Shaanxi (13 species). The species number recorded from other provinces is significantly lower: Gansu (2 species), Beijing (1), Fujian (1), Honk Kong (1), Hubei (1).

2. Material and methods

The material referred to in this study is deposited in the following collections:

OÖLL..... Oberösterreichisches Landesmuseum Linz (F. Guseleinertner)

cAss..... author's private collection

cSch..... private collection Michael Schülke, Berlin

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

Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra. The length of the median lobe of the aedeagus was measured from the apex of the ventral process to the base of the capsule.

3. Species descriptions

Leptusa (Yunnaleptusa) zhemomontis nov.sp. (Figs 1-9)

Type material examined: Holotype ♂: "China: Yunnan, Dali Bai Aut. Pref., Zhemu Shan, 7 km SW Xiaguan, 25°32'-33'N, 100°10'-11'E, 2870-2970 m, scrub with bamboo, oaks & Rhododendr., litter sifted, 18.IX.2009, leg. M. Schülke [CH09-60] / Holotypus ♂ *Leptusa zhemomontis* sp. n. det. V. Assing 2010" (cAss). Paratypes: 22 exs.: same data as holotype (OÖLL, cSch, cAss).

Description: Small species, 1.8-2.3 mm. Habitus as in Fig. 1. Coloration: forebody reddish, with the head occasionally slightly darker; abdomen blackish-brown to blackish, with the anterior segments somewhat paler brown and the apex (segments VIII-X) reddish; legs and antennae reddish to dark-reddish.

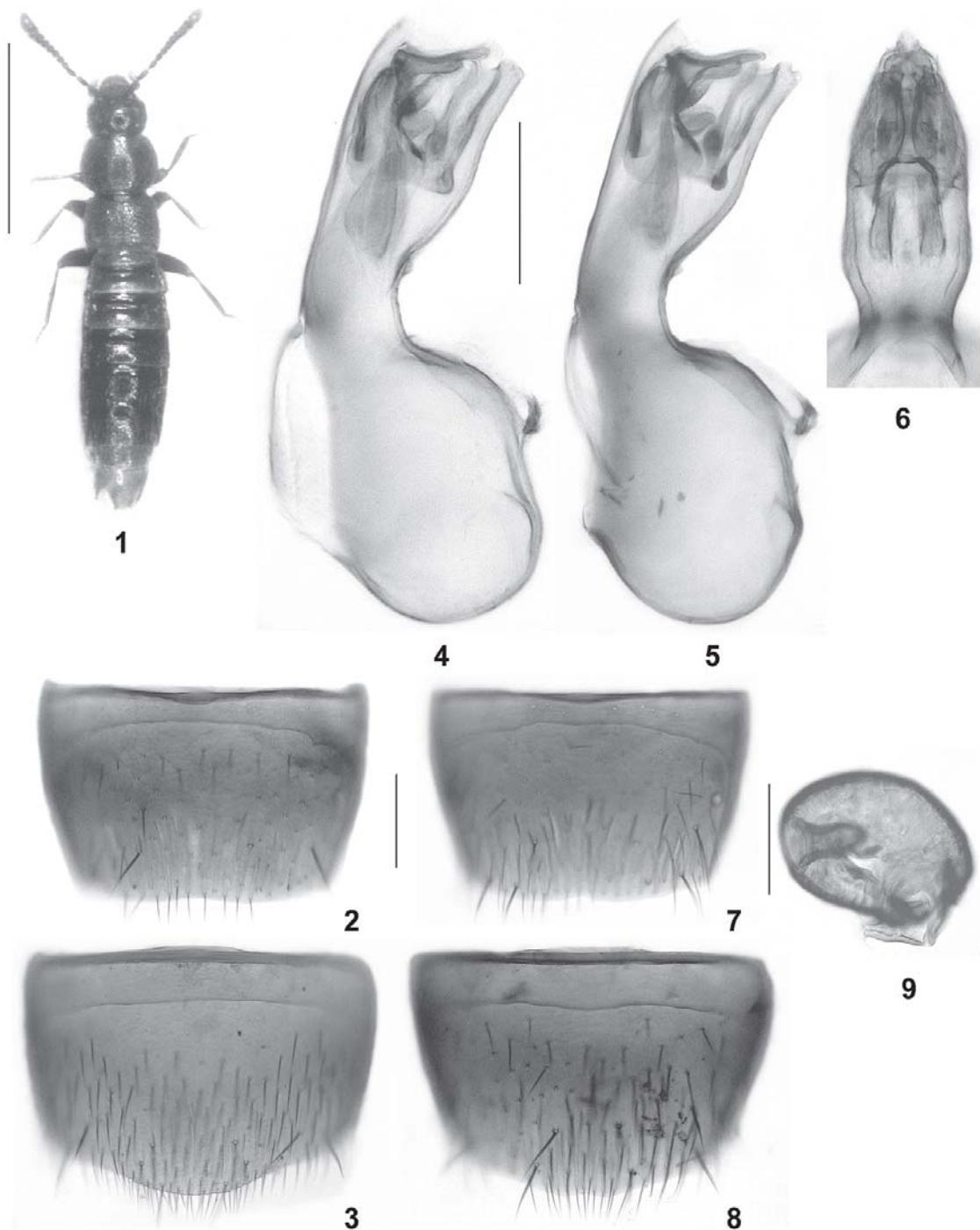
Head weakly transverse; punctation moderately sparse, fine, and shallow; interstices with very shallow to indistinct microsculpture. Eyes small, weakly projecting from lateral contours of head, shorter than postocular portion in dorsal view. Antenna moderately incrassate apically; antennomere IV approximately as long as wide, V-X of gradually increasing width and increasingly transverse; X nearly twice as wide as long.

Pronotum large in relation to head and elytra, strongly convex in cross-section, approximately 1.30-1.35 times as wide as long and 1.30-1.35 times as wide as head, maximal width in the middle; lateral margins evenly convex in dorsal view; posterior angles weakly marked; punctation much denser and slightly more distinct than that of head.

Elytra slightly narrower than, or – at most – as wide as pronotum; approximately 0.65 times as long as pronotum; punctation much coarser than that of head and pronotum. Hind wings reduced.

Abdomen subparallel, widest at segments V/VI, wider than elytra; punctation fine, sparser on posterior than on anterior tergites; microsculpture indistinct; tergite VII without sexual dimorphism; posterior margin of tergite VII with narrow rudiment of a palisade fringe.

♂: sternite VII unmodified; tergite VIII without modifications, posterior margin weakly concave in the middle (Fig. 2); sternite VIII posteriorly broadly convex, weakly produced in the middle (Fig. 3); median lobe of aedeagus (Figs 4-6) approximately 0.35 mm long and of distinctive morphology; paramere of similar shape and chaetotaxy as that of other species of the subgenus.



Figs 1-9: *Leptusa zhemomontis* nov.sp. (1, 5-6: holotype): (1) habitus; (2) male tergite VIII; (3) male sternite VIII; (4-5) median lobe of aedeagus in lateral view; (6) apical portion of median lobe in ventral view; (7) female tergite VIII; (8) female sternite VIII; (9) spermatheca. Scale bars: 1: 1.0 mm; 2-8: 0.1 mm; 9: 0.05 mm.

♀: posterior margin of tergite VIII indistinctly concave in the middle (Fig. 7); posterior margin of sternite VIII broadly convex, in the middle weakly concave (Fig. 8); spermathecal capsule with very short proximal portion (Fig. 9).

E t y m o l o g y : The specific epithet is composed of Zhemo, the name of the mountain where the type locality is situated, and the genitive of the Latin noun mons (mountain).

C o m p a r a t i v e n o t e s : Based on the primary and secondary sexual characters, *L. zhemomontis* undoubtedly belongs to the subgenus *Yunnaleptusa* ASSING 2008. In the recent key to the species of this subgenus (ASSING 2008), *L. zhemomontis* would key out at couplet 2 together with *L. parvibulbata*, most likely its sister species, as can be inferred from the similar external appearance and particularly by the highly similar male sexual characters. Both species are reliably distinguished only by the morphology of the aedeagus, particularly the shape of the crista apicalis, the shape of the ventral process (*L. parvibulbata*: more strongly arched in ventral view and without the small projection at the base), as well as the different shapes of the internal structures.

D i s t r i b u t i o n a n d b i o n o m i c s : *Leptusa zhemomontis* is known only from the type locality, the Zhemo Shan to the south of Xiaguan, Yunnan province. The type specimens were sifted from litter in a shrub habitat (oak, rhododendron, bamboo) at an altitude of 2870-2970 m.

***Leptusa (Yunnaleptusa) hamulata* nov.sp. (Figs 10-14)**

T y p e m a t e r i a l e x a m i n e d : Holotype ♂ [slightly teneral]: "China (Yunnan), Nujiang Lisu Pref., Gaoligong Shan E pass 20 km NW Liuku, 3000 m (creek valley with devast. prim. for., ferns, litter/moss sift.), 25°58'49"N, 98°41'48"E, 3.IX.2009, D. W. Wrase [25] / Holotypus ♂ *Leptusa hamulata* sp. n. det. V. Assing 2010" (cAss).

D e s c r i p t i o n : Small species, 2.4 mm. Habitus as in Fig. 10. Coloration (note that the holotype is slightly teneral): head dark-brown; pronotum and elytra pale-brown; abdomen pale-brown, with segment VI somewhat infuscate; legs dark-yellowish; antennae reddish, with antennomere XI dark-yellowish.

Head (Fig. 11) weakly transverse; punctuation moderately dense, fine, and shallow; interstices without distinct microsculpture. Eyes moderately small, weakly projecting from lateral contours of head, approximately as long as postocular portion in dorsal view. Antenna moderately incrassate apically; antennomeres IV-V approximately as long as wide, VI very weakly transverse; VII-X of gradually increasing width and increasingly transverse; X less than twice as wide as long.

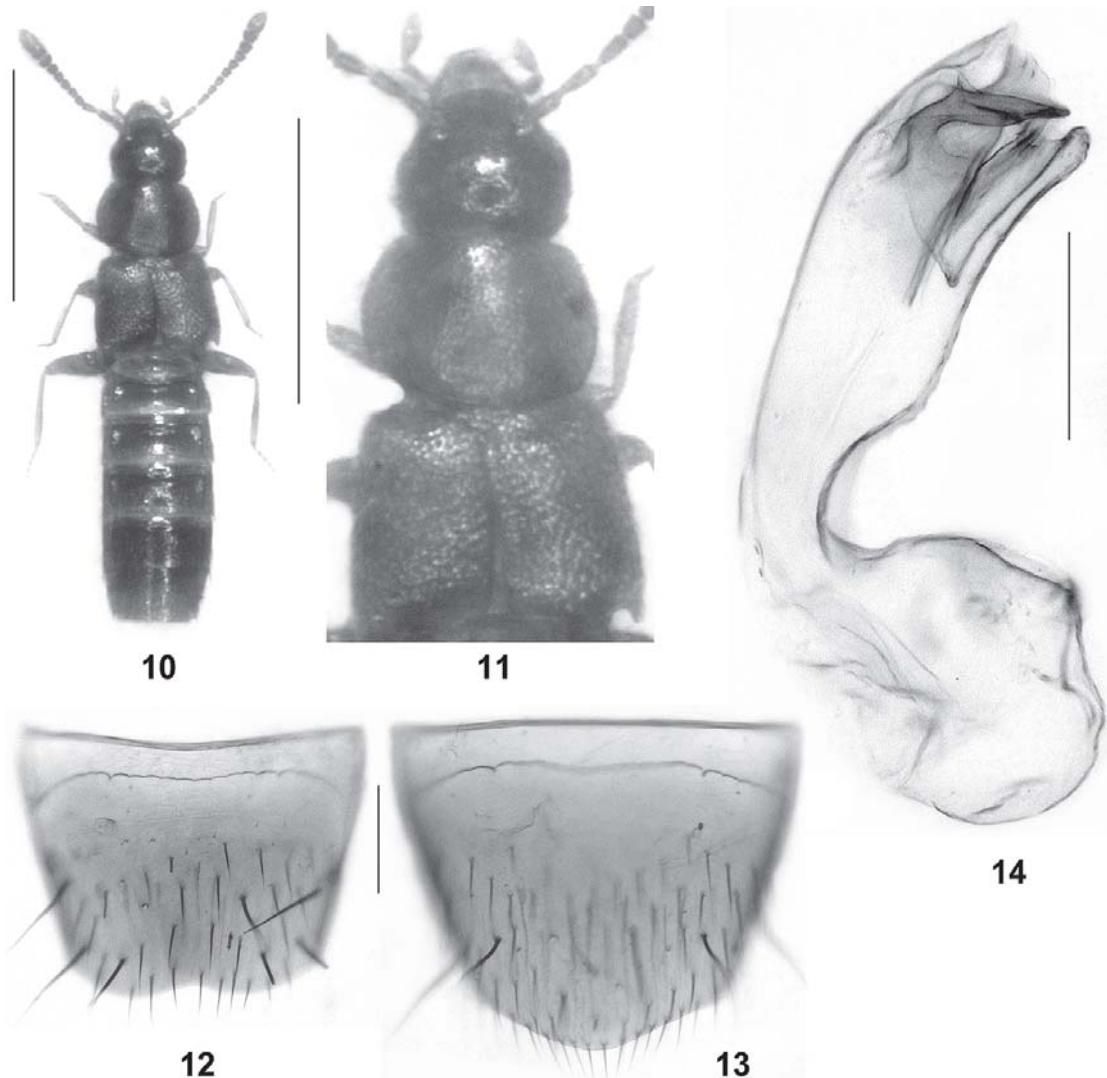
Pronotum (Fig. 11) relatively weakly convex in cross-section, 1.32 times as wide as long and 1.38 times as wide as head, maximal width approximately in the middle; lateral margins evenly convex in dorsal view; posterior angles weakly marked; punctuation very dense, shallow, and ill-defined; surface only with subdued shine.

Elytra slightly broader than, and approximately as long as pronotum (Fig. 11); posterior margin near external angles strongly sinuate; punctuation much coarser than that of head and pronotum. Hind wings present.

Abdomen subparallel, slightly narrower than elytra, widest at segments V/VI; punctuation fine, sparser on posterior than on anterior tergites; microsculpture very shallow; tergite VII without sexual dimorphism; posterior margin of tergite VII with palisade fringe.

♂: sternite VII unmodified; tergite VIII without median tubercle, posterior margin concave in the middle (Fig. 12); sternite VIII distinctly longer than tergite VIII, posteriorly obtusely produced in the middle (Fig. 13); median lobe of aedeagus (Fig. 14) 0.34 mm

long, strongly arched in lateral view and with long apical portion; internal structures of distinctive shape.



Figs 10-14: *Leptusa hamulata* nov.sp. (holotype): (10) habitus; (11) forebody; (12) male tergite VIII; (13) male sternite VIII; (14) median lobe of aedeagus in lateral view. Scale bars: 10: 1.0 mm; 11: 0.5 mm; 12-14: 0.1 mm.

E t y m o l o g y : The specific epithet is an adjective derived from the Latin noun *hamulus* (small hook) and refers to the shape of the apical internal structure of the aedeagus.

C o m p a r a t i v e n o t e s : Based on the male primary and secondary sexual characters, *L. hamulata* probably belongs to *Yunnaleptusa*. The shape of the median lobe of the aedeagus differs somewhat from that of the other species of the subgenus, but the internal structures are of rather similar general shape and arrangement. The new species is readily distinguished from all other representatives of *Yunnaleptusa* by the conspicuous shape of the aedeagus (long apical portion; shape of the internal structures) and by the slender antennomere V. In addition, it is easily separated from *L. parvibulbata* and *L. zhemomontis* by the much longer elytra, the presence of hind wings, the more pro-

nounced palisade fringe at the posterior margin of the abdominal tergite VIII, as well as by the relatively smaller (in relation to head and elytra), less convex, and less shiny pronotum.

D i s t r i b u t i o n a n d b i o n o m i c s : *Leptusa hamulata* is known only from the type locality in the Gaoligong Shan, western Yunnan province, close to the border with Myanmar. The slightly teneral holotype was sifted from litter and moss in a degraded primary forest at an altitude of 3000 m, together with a specimen of *L. cultellata* and a female of a probably undescribed species.

Leptusa (Drepanoleptusa) pollicita nov.sp. (Figs 15-26)

T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "China: Yunnan, Lincang Pref., Xue Shan, 11 km ENE Lincang, 2510 m, 23°55'01"N, 100°11'17.5"E, second. pine forest with Rhodod., small cleft with water, litter & mushrooms sifted, 10.IX.2009, leg. M. Schülke [CH09-39] / Holotype ♂ *Leptusa pollicita* sp. n. det. V. Assing 2010" (cAss). Paratypes: 2♂♂: same data as holotype (cSch, cAss); 1♀: "China: Yunnan, Lincang Pref., Laobie Shan, Wei Bo Shan pass, 24°08'16"N, 99°42'53"E, 2385 m, creek valley, devastated second. decid. forest, litter & moss sifted, 8.IX.2009, leg. M. Schülke [CH09-35]" (cSch).

D e s c r i p t i o n : Body length 2.7-3.2 mm. Habitus as in Fig. 15. Coloration: head blackish-brown to black; pronotum and elytra reddish-brown to blackish, of similar coloration as head or paler; abdomen reddish to dark-brown, with segment VI and anterior half of segment VII blackish; legs reddish to reddish-brown; antennae dark-brown, with antennomeres I-III reddish to reddish-brown.

Head (Fig. 16) weakly transverse, widest across eyes; punctuation very dense and coarse (Fig. 17); dorsal surface almost matt. Eyes relatively large, but weakly convex, slightly longer than postocular portion in dorsal view. Antenna (Fig. 18) relatively slender and gradually incrassate apically.

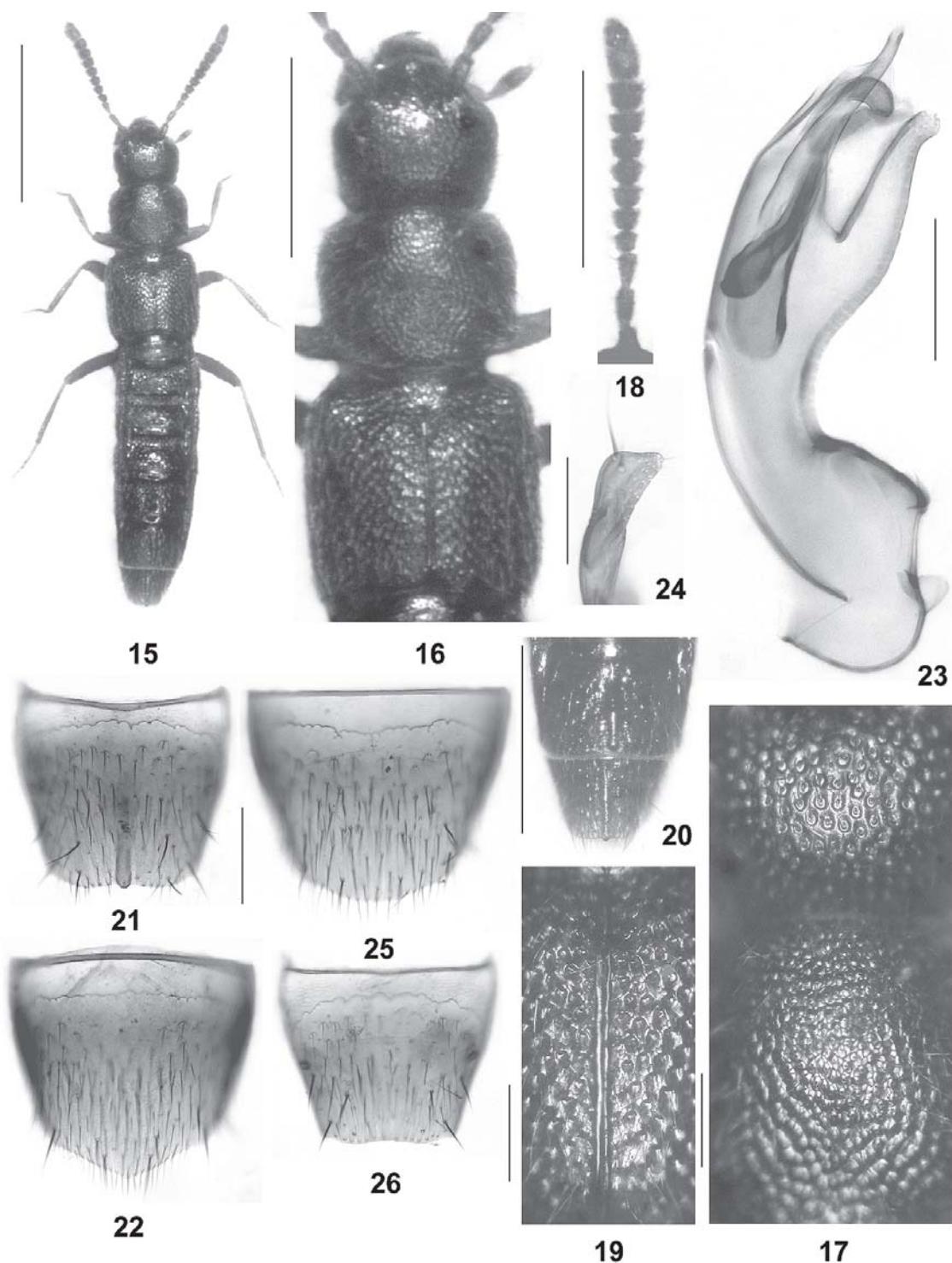
Pronotum (Fig. 16) strongly convex in cross-section, approximately 1.25 times as wide as long and 1.15-1.20 times as wide as head, maximal width in anterior half; posterior angles marked; punctuation very dense, somewhat ill-defined, and less coarse than that of head (Fig. 17); surface almost matt.

Elytra 1.15-1.20 times as wide and approximately as long as pronotum (Fig. 16); humeral angles marked; posterior margin near external angles shallowly sinuate; punctuation dense, as coarse as that of head (Fig. 19); interstices with very shallow, almost obsolete microsculpture visible only at high magnification.

Abdomen distinctly narrower than elytra; segments III-VI of subequal width; tergites III-V with deep, tergite VI with shallower densely punctate anterior impressions; tergite III with dense, tergites IV-VII with somewhat sparser punctuation; interstices glossy, with obsolete isodiametric microreticulation visible only at high magnification; tergite VII with palisade fringe; tergites VII-VIII with sexual dimorphism.

♂: tergites VII and VIII with long and pronounced median carina (Fig. 20); posterior margin of tergite VIII weakly concave in the middle (Fig. 21); posterior margin of sternite VIII obtusely angled in the middle (Fig. 22); median lobe of aedeagus 0.41 mm long, of characteristic shape and with distinctive internal structures (Fig. 23); apical lobe of paramere shaped as in Fig. 24, with two long and two short setae.

♀: posterior margin of tergite VIII indistinctly concave in the middle (Fig. 25); posterior margin of sternite VIII broadly convex (Fig. 26); spermatheca not distinctive.



Figs 15-26: *Leptusa pollicita* nov.sp. (15-20, 23-24: holotype): (15) habitus; (16) forebody; (17) posterior portion of head and median portion of pronotum; (18) antenna; (19) sutural portion of elytra; (20) male abdominal tergites VII-VIII; (21) male tergite VIII; (22) male sternite VIII; (23) median lobe of aedeagus in lateral view; (24) apical lobe of paramere; (25) female tergite VIII; (26) female sternite VIII. Scale bars: 15: 1.0 mm; 16, 18: 0.5 mm; 17, 19-26: 0.1 mm.

E t y m o l o g y : The specific epithet is an adjective derived from the Latin noun *pollex* (thumb) and alludes to the shape of the apical internal structure of the aedeagus.

C o m p a r a t i v e n o t e s : The new species is distinguished from all other species of *Drepanoleptusa* by the characteristic morphology of the median lobe of the aedeagus. From the externally similar and geographically close *L. puetzi* ASSING 2008, it is additionally separated by distinctly coarser punctuation of the head. The general shape of the aedeagus somewhat resembles that of *L. sichuanensis* PACE 1997, which too has been recorded from Yunnan, but the ventral process is of different shape in lateral view, the crista apicalis is less pronounced, the crista proximalis is smaller, and the internal structures are of different shape. For illustrations of *L. puetzi* and *L. sichuanensis* see ASSING (2008) and PACE (1997), respectively.

D i s t r i b u t i o n a n d b i o n o m i c s : The type specimens were collected in two localities to the east and the northwest of Lincang, western Yunnan. They were sifted from litter in a secondary pine forest and a secondary deciduous forest at altitudes of 2385 and 2510 m.

4. Additional records and systematic changes

***Leptusa (Chondrelytropisalia) quinqueimpressa* ASSING 2008**

M a t e r i a l e x a m i n e d : China: 1♀, Yunnan, Nujiang Lisu Pref., Gaoligong Shan, "cloud pass" 21 km NW Liuku, 25°58'N, 98°41'E, 3150 m, shrubs and bamboo, litter sifted, 2.IX.2009, leg. Schülke (cSch).

C o m m e n t : The original description of this recently described species is based on five specimens partly collected in the same locality as the above specimen.

***Leptusa (Chondrelytropisalia) proiecta* ASSING 2008**

M a t e r i a l e x a m i n e d : China: 2♀♂, Yunnan, Nujiang Lisu Pref., Gaoligong Shan, "cloud pass" 21 km NW Liuku, 25°58'N, 98°41'E, 3150 m, shrubs and bamboo, litter sifted, 2.IX.2009, leg. Schülke (cSch, cAss).

C o m m e n t : The original description of this recently described species is based on three specimens. One of the female paratypes was collected in the same locality as the above specimens.

***Leptusa (Yunnaleptusa) cultellata* ASSING 2008**

M a t e r i a l e x a m i n e d : China: 1♂, Yunnan, Nujiang Lisu Pref., Gaoligong Shan, E pass 20 km NW Liuku, 25°59'N, 98°42'E, 3000 m, creek valley with degraded primary forest, litter and moss sifted, 3.IX.2009, leg. Wrase (cSch).

C o m m e n t : The original description of this recently described species is based on a single male. The above specimen was collected close to the type locality.

***Leptusa (Yunnaleptusa) parvibulbata* ASSING 2008**

M a t e r i a l e x a m i n e d : China: 9 exs., Yunnan, Nujiang Lisu Pref., Gaoligong Shan, "cloud pass" 21 km NW Liuku, 25°58'N, 98°41'E, 3150 m, shrubs and bamboo, litter sifted, 2.IX.2009, leg. Schülke (cSch, cAss).

C o m m e n t : The original description of this micropterous species is based on a single male from the Gaoligong Shan. The above specimens were collected in the same mountain range, but at a considerable distance from the type locality.

***Leptusa (Yunnaleptusa) armatissima* ASSING 2008**

C o m m e n t : The subgeneric affiliations of this recently described species were previously doubtful. Based on the secondary sexual characters (shape and chaetotaxy of tergite and sternite VIII in both sexes), the morphology of the aedeagus (shape and arrangement of internal structures; shape of paramere), as well as the shape of spermatheca (proximal portion of capsule short; distal portion oval and with deep cuticular intrusion), *L. armatissima* is attributed to the subgenus *Yunnaleptusa* ASSING 2008.

***Leptusa* sp. 1**

M a t e r i a l e x a m i n e d : China: 1♀, Yunnan, Nujiang Lisu Pref., Gaoligong Shan, E pass 20 km NW Liuku, 25°59'N, 98°42'E, 3000 m, creek valley with degraded primary forest, litter & moss sifted, 3.IX.2009, leg. Wrase (cSch).

***Leptusa* sp. 2**

M a t e r i a l e x a m i n e d : China: 1♀, Yunnan, Dali Bai Aut. Pref., Jizu Shan, peak plateau, 37 km NE Dali, 25°59'N, 100°22'E, 3150 m, mixed forest, litter and moss sifted, 5.IX.2009, leg. Schülke (cSch).

***Leptusa* sp. 3**

M a t e r i a l e x a m i n e d : China: 2♀, Yunnan, Dali Bai Aut. Pref., Jizu Shan, peak plateau, 37 km NE Dali, 25°59'N, 100°22'E, 3150 m, mixed forest, litter and moss sifted, 5.IX.2009, leg. Schülke & Wrase (cSch).

5. Updated catalogue of the *Leptusa* species of China and Taiwan

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); App = ASSING (present paper); P91 = PACE (1991); P95 = PACE (1995); P96a = PACE (1996a); P96b = PACE (1996b); P97 = PACE (1997); P99 = PACE (1999); P01 = PACE (2001); P04 = PACE (2004); P07 = PACE (2007).

The subgeneric assignments, specific identities, and status of *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.

| Subgenus/Species | Distribution | References |
|---------------------------------------|--------------------------------|------------|
| <i>Akratopisalia</i> PACE 1996 | | |
| <i>cribrata</i> PACE 1996 | Taiwan | P96b, A02 |
| <i>limata</i> ASSING 2002 | China: Shaanxi, Hubei, Beijing | A02, A04 |
| <i>qinlingensis</i> PACE 1999 | China: Shaanxi | P99 |
| <i>xianensis</i> PACE 1999 | China: Shaanxi | P99, A02 |

| Subgenus/Species | Distribution | References |
|--|---------------------------------|--------------------|
| <i>Anosiopisalia</i> PACE 1995 | | |
| <i>nemoricultrix</i> PACE 1995 | Taiwan | P95 |
| <i>Aphaireleptusa</i> PACE 1996 | | |
| = <i>Aleteleptusa</i> PACE 1997 | | |
| = <i>Mimumenepisalia</i> PACE 1997 | | |
| <i>acuta</i> ASSING 2002 | Taiwan | A02, P07 |
| <i>anmashanensis</i> PACE 1996 | Taiwan | P96b, A02, P07 |
| <i>chinensis</i> PACE 1997 | China: Sichuan, Shaanxi, Yunnan | P97, A02, P04, A06 |
| <i>formidabilis</i> PACE 1996 | Taiwan | P96b, A02 |
| <i>gansuensis</i> PACE 1997 | China: Gansu | P97 |
| <i>ganzica</i> ASSING 2002 | China: Sichuan | A02 |
| <i>gonggamontis</i> PACE 1997 | China: Sichuan | P97, P01, A02, |
| = <i>daxuemontis</i> PACE 2001 | | |
| <i>jiudingensis</i> PACE 1999 | China: Sichuan | P99 |
| <i>michai</i> ASSING 2002 | China: Shaanxi | 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 | A06 |
| <i>turgida</i> ASSING 2006 | China: Yunnan | A06 |
| <i>wolongensis</i> ASSING 2002 | China: Sichuan | A02 |
| <i>xiahensis</i> PACE 1997 | China: Gansu, Sichuan | P97, P04 |
| <i>xuemontis</i> PACE 2001 | China: Yunnan | P01, A04, A06 |
| <i>yunnanensis</i> PACE 2001 | China: Yunnan | P01, A06 |
| <i>Chondrelytropisalia</i> SCHEERPELTZ 1976 | | |
| <i>projecta</i> ASSING 2008 | China: Yunnan | A08, App |
| <i>quiqueimpressa</i> ASSING 2008 | China: Yunnan | A08, App |
| <i>tectusoides</i> ASSING 2002 | China: Sichuan | A02, A08 |
| <i>Drepanoleptusa</i> PACE 1982 | | |
| <i>chengduensis</i> PACE 2001 | China: Sichuan, Shaanxi | P01, A02, A04 |
| <i>discolor</i> ASSING 2006 | China: Yunnan | A06, A08 |
| <i>emplenotoides</i> ASSING 2006 | China: Yunnan | A06 |
| <i>erlangensis</i> PACE 1999 | China: Sichuan | P99 |
| <i>microvolans</i> PACE 1997 | China: Hong Kong | P97 |
| <i>pollicita</i> ASSING nov.sp. | China: Yunnan | App |
| <i>puetzi</i> ASSING 2008 | China: Yunnan | A08 |
| <i>rorata</i> PACE 1995 | Taiwan | P95 |
| <i>rougemonti</i> PACE 1997 | China: Shaanxi | P97 |
| <i>sichuanensis</i> PACE 1997 | China: Sichuan, Yunnan | P97, P04 |
| <i>stimulans</i> ASSING 2008 | China: Yunnan | A08 |
| <i>taiwanensis</i> PACE 1991 | Taiwan | P91, P07 |

| Subgenus/Species | Distribution | References |
|--|----------------|---------------|
| <i>titillans</i> ASSING 2002 | China: Sichuan | A02, A08 |
| <i>wuyica</i> ASSING 2002 | China: Fujian | A02 |
| <i>Dysleptusa</i> PACE 1982 | | |
| <i>sinorum</i> PACE 2001 | China: Shaanxi | P01 |
| <i>Eospisalia</i> PACE 1982 | | |
| <i>pingtungensis</i> PACE 1995 | Taiwan | P95 |
| <i>Heteroleptusa</i> PACE 1989 | | |
| <i>flagellata</i> ASSING 2002 | China: Shaanxi | A02 |
| <i>hastata</i> ASSING 2002 | China: Shaanxi | A02 |
| <i>peinantamontis</i> PACE 2007 | Taiwan | P07 |
| <i>peregrina</i> PACE 1995 | Taiwan | P95, A02, P07 |
| <i>shaanxiensis</i> PACE 1999 | China: Shaanxi | P99 |
| <i>Homopisalia</i> PACE 1982 | | |
| <i>taichungensis</i> PACE 1996 | Taiwan | P96a |
| <i>Kochliodepisalia</i> PACE 1996 | | |
| <i>kaohsiungensis</i> PACE 2007 | Taiwan | P07 |
| <i>spirarum</i> PACE 1996 | Taiwan | P96b, A02 |
| <i>Nesopisalia</i> PACE 1992 | | |
| <i>centralis centralis</i> PACE 1991 | Taiwan | P91 |
| <i>centralis reposita</i> PACE 1991 | Taiwan | P91 |
| <i>centralis tarokensis</i> PACE 1991 | Taiwan | P91 |
| <i>centralis yushanensis</i> PACE 1991 | Taiwan | P91, P07 |
| <i>jinfomontis</i> PACE 2001 | China: Sichuan | P01 |
| <i>Yunnaleptusa</i> ASSING 2008 | | |
| <i>armatissima</i> ASSING 2008 | China: Yunnan | A08, App |
| <i>cultellata</i> ASSING 2008 | China: Yunnan | A08, App |
| <i>curvata</i> ASSING 2006 | China: Yunnan | A06, A08 |
| <i>hamulata</i> nov.sp. | China: Yunnan | App |
| <i>parvibulbata</i> ASSING 2008 | China: Yunnan | A08, App |
| <i>recta</i> ASSING 2006 | China: Yunnan | A06, A08 |
| <i>zhemomontis</i> nov.sp. | China: Yunnan | App |
| Incertae sedis | | |
| <i>calliceroides</i> ASSING 2004 | China: Yunnan | A04 |
| <i>excaecata</i> ASSING 2002 | China: Shaanxi | A02 |
| <i>marmotae</i> ASSING 2002 | China: Sichuan | A02 |
| <i>schuelkei</i> PACE 1999 | China: Shaanxi | P99, A08 |

Acknowledgement

Michael Schülke kindly provided the material which this paper is based on. The generous gift of the holotypes of the three species described above is greatly appreciated.

Zusammenfassung

Drei Arten der Gattung *Leptusa* KRAATZ 1858 aus Yunnan, China, werden beschrieben und abgebildet: *L. (Yunnaleptusa) zhemoensis* nov.sp. (Zhemo Shan), *L. (Y.) hamulata* nov.sp. (Gaoligong Shan), and *L. (Drepanoleptusa) pollicita* nov.sp. (Liancang pref.). Weitere Nachweise von vier beschriebenen und drei unbeschriebenen Arten werden aus Yunnan gemeldet. *Leptusa armatissima* ASSING 2008 wird in die Untergattung *Yunnaleptusa* ASSING 2008 gestellt. Ein aktualisierter Katalog der aus China und Taiwan nachgewiesenen *Leptusa*-Arten wird erstellt. Die *Leptusa*-Fauna von China und Taiwan umfasst derzeit 65 Arten und Unterarten in zwölf Untergattungen.

References

- ASSING V. (2002): New species and records of *Leptusa* KRAATZ from the Palaearctic region (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **34** (2): 971-1019.
- ASSING V. (2004): Two new species, two new synonyms, and new records of *Leptusa* KRAATZ (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **36** (2): 643-653.
- ASSING V. (2006): Six new species and additional records of *Leptusa* from northern Yunnan, China (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **38** (2): 1157-1174.
- ASSING V. (2008): Seven new species and additional records of Palaearctic *Leptusa*, primarily from Yunnan, China (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **40** (1): 251-273.
- ASSING V. (2009): New species, new synonymies, and additional records of *Leptusa* from Turkey and Iran (Coleoptera: Staphylinidae: Aleocharinae). — Linzer biologische Beiträge **41** (2): 1285-1305.
- PACE R. (1991): Il genere *Leptusa* KRAATZ della sottoregione indocinese (Taiwan e Vietnam). Monografia del genere *Leptusa* KRAATZ: Supplemento I (Coleoptera: Staphylinidae). — Elytron **5**: 111-119.
- PACE R. (1995): Nuove specie di *Leptusa* KR. di Taiwan. Monografia del genere *Leptusa* KRAATZ: Supplemento V (Coleoptera Staphylinidae). — Bollettino della Società entomologica italiana, Genova **126**: 243-248.
- PACE R. (1996a): Nuove *Leptusa* KRAATZ di Spagna, Francia, Italia, Austria, Cipro, Turchia e Taiwan. Monografia del genere *Leptusa* KRAATZ: Supplemento IV (Coleoptera, Staphylinidae). — Nouvelle Revue d'Entomologie (N. S.) **13**: 21-33.
- PACE R. (1996b): Nuove specie di *Leptusa* KRAATZ di Taiwan. Monografia del genere *Leptusa* KRAATZ: Supplemento VI (Coleoptera Staphylinidae). — Bollettino della Società entomologica italiana, Genova **128**: 29-36.
- PACE R. (1997): Specie del genere *Leptusa* in Cina. Monografia del genere *Leptusa* KRAATZ: Supplemento VII (Coleoptera, Staphylinidae). — Revue suisse de Zoologie **104**: 751-760.
- PACE R. (1999): Nuove *Leptusa* della Cina. Monografia del genere *Leptusa* KRAATZ: Supplemento X (Coleoptera, Staphylinidae). — Beiträge zur Entomologie, Berlin **49**: 369-376.

- PACE R. (2001): Nuove specie cinesi del genere *Leptusa*. Monografia del genere *Leptusa* KRAATZ: Supplemento XII (Coleoptera, Staphylinidae). — Bollettino del Museo Regionale di Scienze naturali, Torino **18**: 151-160.
- PACE R. (2004): Specie nuove o poco note di Homalotini, Silusini, Bolitocharini, Diestotini e Autaliini della Cina e della Thailandia (Coleoptera, Staphylinidae). — Revue suisse de Zoologie **111**: 63-76.
- PACE R. (2007): Nuovi dati e nuove specie del genere *Leptusa* KRAATZ di Taiwan. Monografia del genere *Leptusa* Kr. Supplemento XIV (Coleoptera, Staphylinidae). — Bollettino del Museo Civico di Storia Naturale di Verona **31**: 141-145.

Author's address: Dr. Volker ASSING
Gabelsbergerstr. 2
D-30163 Hannover, Germany
E-mail: vassing.hann@t-online.de

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2010

Band/Volume: [0042_2](#)

Autor(en)/Author(s): Assing Volker

Artikel/Article: [Three new species of Leptusa from Yunnan, with a catalogue of the Leptusa species recorded from China and Taiwan \(Coleoptera: Staphylinidae: Aleocharinae\) 1155-1167](#)