Linzer biol. Beitr. 43/1 253-265 25.7.2011
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New species and additional records of *Leptusa* from the Caucasus region and the Himalaya (Coleoptera: Staphylinidae: Aleocharinae)

V. Assing

A b s t r a c t : Five species of *Leptusa* KRAATZ 1858 from the West Caucasus and Nepal are (re-)described and illustrated: *L.* (*Neopisalia*) *gibbera* nov.sp. (West Caucasus: Krasnodar region), *L.* (*N.*) *microphthalma* REITTER 1887 (West Caucasus), *L.* (*Chondrelytropisalia*) *umbhakica* nov.sp. (E-Nepal), *L.* (*Homopisalia*) *hiarens* nov.sp. (E-Nepal), and *L.* (*H.*) *schawalleri* nov.sp. (E-Nepal). Additional records of five described species are reported from the West Caucasus and eastern Nepal, among them a new country record.

K e y w o r d s: Coleoptera, Staphylinidae, Aleocharinae, *Leptusa*, Caucasus, Himalaya, Nepal, taxonomy, new species, additional records.

Introduction

The Caucasus and the Himalaya represent diverse mountain ranges inhabited by numerous species of *Leptusa* Kraatz 1858. Since the revision of the genus by PACE (1989), only a single new species has been discovered in the Himalaya (ASSING 2002) and none in the Caucasus.

The present contribution is based primarily on material from the Krasnodar region (West Caucasus) recently made available to me by Aleš Smetana, Ottawa, and from Nepal. The latter was discovered on the occasion of a recent visit to the collections of the natural history museum in Stuttgart. An examination of this material yielded as many as four undescribed species, one from the West Caucasus and three from eastern Nepal. Also, several described species were found which were previously represented only by old material.

Material and methods

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cAss.....author's private collection cSme....private collection Aleš Smetana, Ottawa

The morphological studies were conducted 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. The parameral side of the aedeagus (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Results

Leptusa (Roubaliusa) storkani ROUBAL 1917

M a t e r i a l e x a m i n e d : Russia: Krasnodarskiy Kray: 10 exs., Temnolesskaia near Mezmai [=Mezmay], 850 m, 9.VI.1999, leg. Smetana (cSme, cAss); 9 exs., same data, but 750 m, 7.VI.1999 (cSme, cAss); 7 exs., same data, but 800 m, 8.VI.1999 (cSme, cAss).

C o m m e n t : This species has become known only from the West Caucasus region.

Leptusa (Dysleptusa) persica ASSING 2009

M a t e r i a l e x a m i n e d : Russia: Krasnodarskiy Kray: 3 exs., Temnolesskaia near Mezmai [=Mezmay], 800 m, 8.VI.1999, leg. Smetana (cSme, cAss); 1 ex., same data, but 750 m, 7.VI.1999 (cSme).

C o m m e n t: This recently described species was previously known only from Iran (ASSING 2009).

Leptusa (Neopisalia) venusta (HOCHHUTH 1849)

M a t e r i a l e x a m i n e d : Russia: Krasnodarskiy Kray: 6 exs., Temnolesskaia near Mezmai [=Mezmay], 800 m, 8.VI.1999, leg. Smetana (cSme, cAss); 2 exs., same data, but 750 m, 7.VI.1999 (cSme, cAss).

C o m m e n t : $Leptusa\ venusta$ is rather widespread in the Caucasus and northeastern Turkey.

Leptusa (Neopisalia) gibbera nov.sp. (Figs 1-14)

Description: Body length 3.5-4.0 mm. Habitus as in Fig. 1. Coloration: head dark-brown to blackish-brown; pronotum and elytra brown to dark-brown; abdomen brown, with segment VI and anterior half of segment VII infuscate; legs and antennae reddish to reddish brown, usually with antennomeres I-III somewhat paler.

Head (Figs 2-3) approximately as long as wide or weakly oblong; punctation dense and

shallow, somewhat indistinct in the pronounced microsculpture (Fig. 4); dorsal surface almost matt; eyes weakly convex, not distinctly projecting from lateral contours of head, slightly shorter than postocular portion in dorsal view. Antenna rather slender (Fig. 5), approximately 1.0 mm long; antennomeres I-III distinctly oblong and of subequal length; IV weakly oblong; V approximately as wide as long; X barely 1.5 times as wide as long. Maxillary palpi slender; preapical palpomere approximately 4 times as long as broad.

Pronotum (Figs 2-3) approximately 1.25-1.30 times as wide as long and 1.30-1.35 times as wide as head; maximal width in, or slightly before middle; posterior angles marked; punctation dense, fine, and shallow, not very evident in the pronounced microsculpture (Fig. 6); surface almost matt.

Elytra (Figs 2-3) sexually dimorphic, 0.85-0.95 times as long as pronotum, laterally with rather pronounced and extensive oblong impression; posterior margin distinctly sinuate near postero-lateral angles; punctation much more pronounced than that of head and pronotum; interstices with shallow microsculpture and subdued shine. Hind wings reduced. Legs slender; metatarsomere I slightly longer than the combined length of II and III.

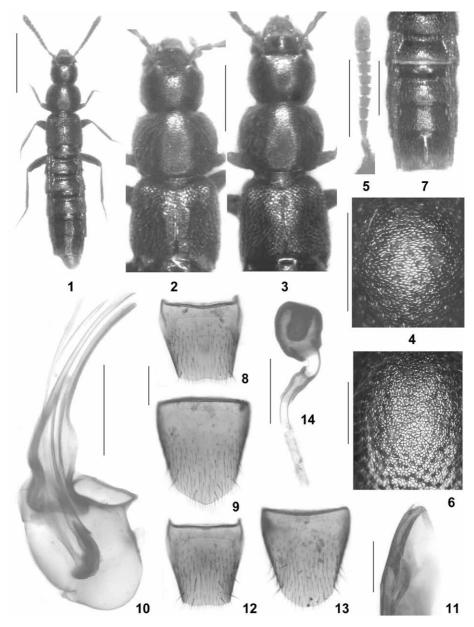
Abdomen subparallel, approximately as wide as elytra; tergites III-V with deep and coarsely punctate anterior impressions (Fig. 7); punctation distinct, dense on anterior and sparser on posterior tergites; posterior margin of tergite VII with palisade fringe; tergite VII with sexual dimorphism.

- ♂: elytra with pronounced protuberance on either side of suture (Fig. 2); tergite VII with smooth and distinctly elevated long median carina (Fig. 7); posterior margin of sternite VII broadly and weakly concave, on either side of this concavity with two very long marginal setae; tergite VIII with short and weakly pronounced median carina, posterior margin weakly concave in the middle (Fig. 8); sternite VIII oblong, much longer than tergite VIII, posterior margin obtusely produced in the middle (Fig. 9); aedeagus 0.68 mm long, with long and slender ventral process and with long internal structures (Fig. 10); apical lobe of paramere slender (Fig. 11).
- φ : elytra without protuberances (Fig. 3); posterior margin of tergite VIII indistinctly concave in the middle (Fig. 12); posterior margin of sternite VIII strongly convex (Fig. 13); spermatheca as in Fig. 14.

E t y m o l o g y: The specific epithet is a Latin adjective (with protuberances) and alludes to the modifications of the male elytra.

C o m p a r a t i v e n o t e s: Based on the conspicuous derived morphology of the aedeagus, L. gibbera is closely related to L. laeviuscula (HOCHHUTH 1849) and to the syntopic L. venusta. It is distinguished from both of them by the shorter and more slender elytra (in L. venusta and L. laeviuscula at least as long as the pronotum), the pronounced lateral impressions of the elytra, the pronounced protuberances on the male elytra, and particularly by the morphology of the aedeagus. For illustrations of the genitalia of L. venusta and L. laeviuscula see PACE (1989).

D is tribution and natural his tory: The specimens were collected near Mezmay, Krasnodarskiy Kray, Western Caucasus, at altitudes of 750-800 m. They were sifted from deep leaf litter in mixed beech and fir forests (SMETANA pers. comm.).



Figs 1-14: Leptusa gibbera nov.sp.: (1) female habitus; (2) male forebody; (3) female forebody; (4) median dorsal portion of head; (5) antenna; (6) median portion of pronotum; (7) male abdominal tergites III-VII; (8) male tergite VIII; (9) male sternite VIII; (10) median lobe of aedeagus in lateral view; (11) apical lobe of paramere; (12) female tergite VIII; (13) female sternite VIII; (14) spermatheca. Scale bars: 1: 1.0 mm; 2-3, 5, 7: 0.5 mm; 8-10, 12-13: 0.2 mm; 4, 6, 11, 14: 0.1 mm.

Leptusa (Neopisalia) microphthalma REITTER 1887 (Figs 15-26)

M a t e r i a l e x a m i n e d : Russia: Krasnodarskiy Kray: 14 exs., Temnolesskaia near Mezmai [=Mezmay], 800 m, 8.VI.1999, leg. Smetana (cSme, cAss); 10 exs., same data, but 750 m, 7.VI.1999 (cSme, cAss); 1 ex., same data, but 850 m, 8.VI.1999 (cSme); 4 exs., same data, but 850 m, 9.VI.1999 (cSme, cAss); 40 exs., Guama near Mezmai, 1000 m, 10.VI.1999, leg. Smetana (cSme, cAss); 1 ex., "Kuban", leg. Leder & Reitter (SDEI). 8 exs., "Circassien", leg. Leder & Reitter (SDEI); 1 ex., "Circassia" (SDEI); 2 exs., "Swanetien", leg. Leder & Reitter (SDEI).

C o m m e n t: The original description is based on an unspecified number of syntypes from "Utsch-Dere in Circassien. Von Herrn Eugen König entdeckt" (REITTER 1887). PACE (1989) designated a female syntype as the lectotype. Based on the illustrations of the aedeagus of *L. microphthalma* provided by PACE (1989), the recently collected material listed above was at first assumed to represent a distinct species. A subsequent comparison with old material from "Circassia" deposited in the collections of the SDEI, however, revealed that they are conspecific. In order to facilitate future identification, a redescription and new illustrations are provided below.

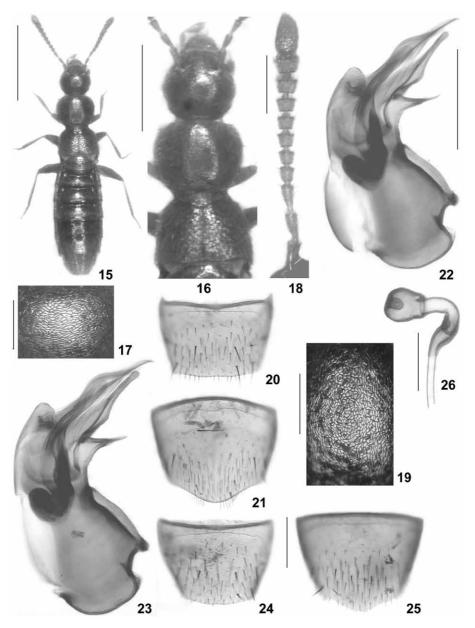
R e d e s c r i p t i o n : Body length 2.6-3.5 mm. Habitus as in Fig. 15. Coloration: forebody yellowish-brown to reddish-brown; abdomen brown to dark-brown, with the posterior margins of the segments and the apex (posterior portion of segment VII, segments VIII-X) yellowish to yellowish-brown; legs and antennae dark-yellowish to yellowish-brown.

Head (Fig. 16) weakly transverse; punctation fine and sparse, barely visible in the pronounced microsculpture (Fig. 17); dorsal surface with subdued shine; eyes weakly convex, not projecting from lateral contours of head, and small, less than half the length of postocular portion in dorsal view. Antenna slender (Fig. 18), approximately 0.9 mm long; antennomeres I-III distinctly oblong and of subequal length; IV approximately as long as wide or indistinctly oblong; V as wide as long or weakly transverse; VI-X gradually increasing in width and increasingly transverse; X approximately 1.5 times as wide as long, or nearly so. Maxillary palpi moderately slender; preapical palpomere approximately 3 times as long as broad.

Pronotum (Fig. 16) approximately 1.25 times as wide as long and 1.20-1.25 times as wide as head; maximal width slightly before middle; posterior angles obtusely marked; punctation fine and rather sparse, barely visible in the pronounced microsculpture (Fig. 19); surface with subdued shine.

Elytra (Fig. 16) short, approximately 0.75 times as long as pronotum; posterior margin distinctly sinuate near postero-lateral angles; punctation much more pronounced than that of head and pronotum; interstices more shiny than those of head and pronotum, with shallow microsculpture composed of larger meshes than that of head and pronotum. Hind wings reduced. Legs moderately slender; metatarsomere I as long as the combined length of II and III, or nearly so.

Abdomen 1.15-1.20 times as wide as elytra, widest at segments V/VI; tergites III-V with rather shallow and finely punctate anterior impressions; punctation fine, moderately dense on anterior and rather sparse on posterior tergites; posterior margin of tergite VII without palisade fringe; tergite VII without sexual dimorphism.



Figs 15-26: Leptusa microphthalma REITTER: (15) habitus; (16) forebody; (17) median dorsal portion of head; (18) antenna; (19) median portion of pronotum; (20) male tergite VIII; (21) male sternite VIII; (22-23) median lobe of aedeagus in lateral view; (24) female tergite VIII; (25) female sternite VIII; (26) spermatheca. Scale bars: 15: 1.0 mm; 16: 0.5 mm; 18, 20-25: 0.2 mm; 17, 19, 26: 0.1 mm.

3: posterior margin of sternite VII broadly and rather weakly concave, on either side of this concavity with two very long marginal setae; posterior margin of tergite VIII indistinctly concave in the middle (Fig. 20); sternite VIII transverse, posterior margin convexly produced in the middle (Fig. 21); aedeagus ca. 0.48 mm long, with pronounced additional projection of somewhat variable shape at the base of the ventral process (Figs 22-23); apical lobe of paramere slender and moderately long.

φ: posterior margin of tergite VIII weakly convex (Fig. 24); posterior margin of sternite VIII somewhat produced in the middle (Fig. 25); spermatheca as in Fig. 26.

Distribution and natural history: The species is rather widespread in the West Caucasus region. The recently collected specimens were collected near Mezmay, at altitudes of 750-1000 m, together with *L. storkani*, *L. persica*, *L. venusta*, and *L. gibbera*. They were sifted from deep leaf litter in mature, mixed beech and fir forests, partly near a stream, and from moist to wet leaf litter in a mature oak forest (SMETANA pers. comm.).

Leptusa (Chondrelytropisalia) ilamensis PACE 1987 (Figs 50-52)

M a t e r i a l e x a m i n e d : Nepal: 3 exs., Ilam district, Gitang Khola, 2550 m, 28./31.V.1980, leg. Martens (SMNS, cAss).

C o m m e n t: The original description is based on a male holotype and a female paratype. The above specimens were collected together with the types, but not included in the type series. The male sexual characters are illustrated in Figs 50-52.

Leptusa (Chondrelytropisalia) umbhakica nov.sp. (Figs 27-34)

T y p e m a t e r i a l : <u>Holotype ♂</u>: "Nepal: 390 Dist. Sankhua Sabha, Thudam, 3550-3650 m, 25.-27.V.1988, leg. W. Schawaller / Holotypus ♂ *Leptusa umbhakica* sp.n. det. V. Assing 2010" (SMNS). <u>Paratypes</u>: 1♂, 1♀: same data as holotype (SMNS, cAss).

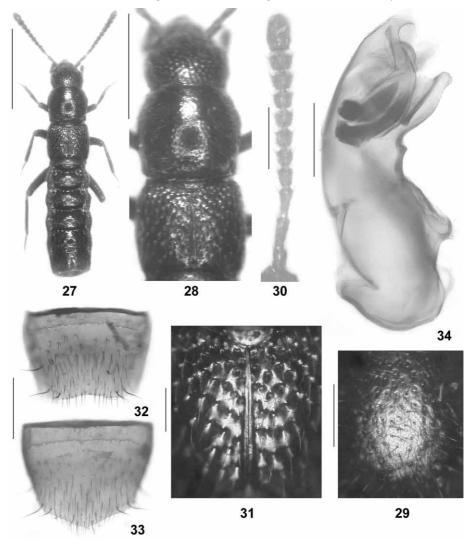
Description: Body length 2.8-3.2 mm. Habitus slender (Fig. 27). Coloration: forebody brown to blackish brown; abdomen dark-brown to blackish-brown, with segment VI and anterior portion of segment VII black and with the posterior margins of segments III-V, the posterior portion of segment VII, and segments VIII-X reddish; legs dark-brown; antennae reddish-brown, with antennomeres I-III and XI reddish.

Head 1.05-1.10 times as long as wide; punctation coarse, dense, and defined; interstices slightly narrower than punctures and with very shallow microreticulation (Fig. 28); eyes weakly convex, slightly shorter than postocular portion in dorsal view. Antenna slender (Fig. 18), approximately 0.9 mm long; antennomere IV weakly oblong, V approximately as long as broad, VI-X gradually and weakly increasing in width and increasingly transverse, X approximately 1.5 times as wide as long (Fig. 30). Maxillary palpi slender; preapical palpomere approximately 3-3.5 times as long as broad.

Pronotum slender (Fig. 28), approximately 1.05 times as wide as long and 1.15-1.20 times as wide as head, strongly convex in cross-section; maximal width in anterior half; lateral margins in posterior half weakly sinuate in dorsal view; posterior angles marked; punctation fine and rather sparse, much finer and shallower than that of head; interstices with very shallow microreticulation visible only at high magnification (Fig. 29); surface somewhat glossy.

Elytra (Fig. 28) short, approximately 0.75 times as long as, and only indistinctly broader

than pronotum; posterior margin distinctly sinuate near postero-lateral angles; punctation much coarser than that of head and not very dense (Fig. 31); interstices without microsculpture and very glossy. Hind wings reduced. Legs moderately slender and rather stout; metatarsomere I as long as the combined length of II and III, or nearly so.



Figs 27-34: *Leptusa umbhakica* nov.sp.: (27) habitus; (28) forebody; (29) median portion of pronotum; (30) antenna; (31) sutural portion of elytra; (32) male tergite VIII; (33) male sternite VIII; (34) median lobe of aedeagus in lateral view. Scale bars: 27: 1.0 mm; 28: 0.5 mm; 30, 32-33: 0.2 mm; 29, 31, 34: 0.1 mm.

Abdomen slightly broader than elytra, subparallel; tergites III-VI with deep and coarsely punctate anterior impressions; remainder of tergal surfaces with very fine and sparse punctation; interstices glossy, with very shallow, almost obsolete microreticulation visi-

ble only at high magnification; posterior margin of tergite VII with fine palisade fringe; tergites VII-VIII without evident sexual dimorphism, posterior margin of tergite VIII broadly and shallowly concave (Fig. 32).

3: sternite VII with long and erect pubescence, otherwise unmodified; posterior margin of sternite VIII obtusely angled in the middle (Fig. 33); aedeagus ca. 0.36 mm long, with small tooth-like projection at the base of the ventral process (Fig. 34); apical lobe of paramere short and stout, similar to that of other species of the subgenus.

♀: posterior margin of sternite VIII evenly convex; spermatheca not distinctive.

E t y m o l o g y: The specific epithet (adjective) is derived from the name of the mountain range (Umbhak Himal), where the type locality is situated.

C o m p a r a t i v e n o t e s: Based on the external (slender habitus, punctation, presence of pronounced anterior impressions on tergites III-VI) and sexual characters, particularly the shape and internal structures of the aedeagus, *L. umbhakica* undoubtedly belongs to the *L. indica* species group, which is characterized especially by the shape of the two sclerotized internal structures, the shape of the tube-like apical internal structure, as well as by the shape of the median lobe of the aedeagus. In aedeagal characters, *L. umbhakica* is most similar to *L. bagmatiensis* PACE 1989 from central Nepal, from which it is readily distinguished by the more slender habitus, the much coarser and defined punctation of the head, and by the shape of the ventral portion of the median lobe of the aedeagus (between the base of the ventral process and the crista apicalis). For illustrations of *L. bagmatiensis* see PACE (1989).

D is tribution and natural history: The type locality is situated near Thudam (27°45′N, 87°30′E) in the Umbhak Himal in the very northeast of Nepal. The specimens were sifted in a mixed forest (mainly birch and rhododendron) at an altitude of 3550-3650 m. The female paratype had a mature egg in the ovaries.

Leptusa (Homopisalia) hiarens nov.sp. (Figs 35-41)

Description: Small species, body length 1.8-2.0 mm. Habitus as in Fig. 35. Coloration: body reddish to reddish-brown, with the abdominal segment VI and sometimes the anterior portion of segment VII blackish; legs reddish; antennae brown.

Head approximately 1.1 times as wide as long; punctation moderately dense, shallow, weakly evident in the pronounced microreticulation; surface almost matt; eyes small, shorter than postocular region in dorsal view. Antenna similar to that of *L. schawalleri* (cf. Fig. 42), distinctly incrassate apically; antennomere IV approximately as wide as long; V-X of increasing width and increasingly transverse; X approximately twice as wide as long. Maxillary palpi relatively short and stout; preapical palpomere little more than twice as long as broad.

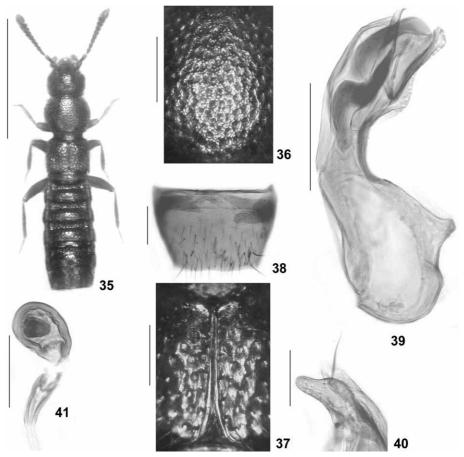
Pronotum approximately 1.25 times as wide as long and 1.25 times as wide as head, moderately convex in cross-section; maximal width in anterior half; posterior angles obtusely marked; punctation and microreticulation similar to that of head (Fig. 36).

Elytra short, approximately 0.75 times as long and 0.90-0.95 times as wide as pronotum; posterior margin distinctly sinuate near postero-lateral angles; suture posteriorly gaping

(Fig. 37); punctation much coarser than that of head and pronotum and moderately dense; interstices with extremely shallow microsculpture (visible only at high magnification) and glossy (Fig. 37). Hind wings completely reduced. Legs of moderate length; metatarsomere I somewhat longer than II, but shorter than the combined length of II and III.

Abdomen distinctly broader than elytra, widest at segments V/VI; tergites III-VI with moderately deep, densely and moderately coarsely punctate anterior impressions; remainder of tergal surfaces with fine and less dense punctation; interstices with distinct microreticulation; posterior margin of tergite VII without palisade fringe; tergites VII-VIII without evident sexual dimorphism, posterior margin of tergite VIII truncate or very shallowly concave in the middle (Fig. 38).

3: sternite VII unmodified; posterior margin of sternite VIII obtusely angled in the middle; aedeagus ca. 0.28 mm long, shaped as in Fig. 39; apical lobe of paramere short and stout (Fig. 40).



Figs 35-41: *Leptusa hiarens* nov.sp.: (35) habitus; (36) median portion of pronotum; (37) sutural portion of elytra; (38) male tergite VIII; (39) median lobe of aedeagus in lateral view; (40) apical lobe of paramere; (41) spermatheca. Scale bars: 35: 1.0 mm; 36-39: 0.1 mm; 40-41: 0.05 mm.

φ: middle of posterior margin of sternite VIII obtusely angled, slightly less produced than in male; spermathecal capsule with pronounced apical cuticular intrusion (Fig. 41).

E t y m o l o g y: The specific epithet (Latin, present participle of hiare: to gape) refers to the posteriorly gaping elytral suture.

C o m p a r a t i v e n o t e s : Only two species of the subgenus *Homopisalia* PACE 1982 have become known from the Himalaya, *L. bengalensis* PACE 1982 from the Tunglu range (Darjeeling district) in West Bengal, northern India, and *L. cassagnaui* PACE 1984 from "Jalgala Himal, Nepal" (PACE 1989), a locality I have been unable to find in any map, gazetteer, or in other internet sources. In aedeagal morphology, *L. hiarens* is more similar to *L. bengalensis*, but distinguished by the more acute angle and the more pronounced excavation (lateral view) between the ventral process and the basal portion of the capsule of the median lobe, as well as by apically obliquely truncate ventral process (lateral view). Moreover, the spermatheca is of completely different shape. For illustrations of *L. bengalensis* and *L. cassagnaui* see PACE (1989). For characters separating *L. hiarens* from the externally extremely similar and syntopic *L. schawalleri* see the following section.

D is tribution and natural history: The type locality is situated in the upper Simbua Khola, Taplejung district, in the extreme northeast of Nepal, close to the border with Sikkim. The specimens were sifted in a mature fir and rhododendron forest at an altitude of 3250-3350 m, together with the types of the following species.

Leptusa (Homopisalia) schawalleri nov.sp. (Figs 42-49)

T y p e m a t e r i a l : <u>Holotype \circlearrowleft </u>: "Nepal: 361, Taplejung Dist. upper Simbua Khola, near Tseram, 10.-15.V.88, 3250-3350 m, leg. Schawaller / Holotypus \circlearrowleft *Leptusa schawalleri* sp.n. det. V. Assing 2010" (SMNS). <u>Paratypes</u>: 1 \circlearrowleft , 4 \circlearrowleft \circlearrowleft : same data as holotype (SMNS, cAss).

Description: External characters (Figs 42-43) as in L. hiarens, except as follows:

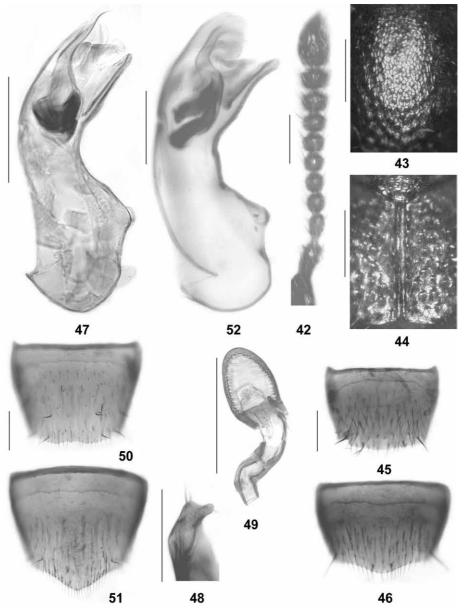
Elytral suture not gaping posteriorly (Fig. 44). Posterior margin of tergite VIII weakly convex (Fig. 45).

- 3: sternite VII unmodified; posterior margin of sternite VIII very weakly produced in the middle (Fig. 46); aedeagus ca. 0.25 mm long, shaped as in Fig. 47; apical lobe of paramere short and stout (Fig. 48).
- φ : sternite VIII of similar shape as in male, slightly less produced than in male; spermathecal capsule with distal portion of oval shape, without apical cuticular intrusion (Fig. 49).

E t y m o l o g y: The species is dedicated to Wolfgang Schawaller, specialist of Tenebrionidae, who collected the type series of three of the species described in the present paper.

C o m p a r a t i v e n o t e s: This species is reliably distinguished from the syntopic L. hiarens only by the fully contiguous elytral suture (posteriorly gaping in L. hiarens) and by the sexual characters, particularly the completely different morphology of the median lobe of the aedeagus (which readily distinguishes it also from all other consubgeners), the stouter apical lobe of the paramere, as well as by the different morphology of the spermatheca (shape of the distal portion of the capsule, absence of an apical cuticular intrusion).

Distribution and natural history: The type locality and the ecological circumstances are identical to those of L. history.



Figs 42-52: Leptusa schawalleri nov.sp. (42-49) and L. ilamensis PACE (50-52): (42) antenna; (43) median portion of pronotum; (44) sutural portion of elytra; (45, 50) male tergite VIII; (46, 51) male sternite VIII; (47, 52) median lobe of aedeagus in lateral view; (48) apical lobe of paramere; (49) spermatheca. Scale bars: 0.1 mm.

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Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of the specimens treated above. Special thanks are due to Aleš Smetana for the generous gift of the holotype of *L. gibbera*. Benedikt Feldmann, Münster, kindly proof-read the manuscript.

Zusammenfassung

Fünf Arten der Gattung *Leptusa* KRAATZ 1858 aus dem Westkaukasus und aus Ostnepal werden beschrieben bzw. redesribiert und abgebildet: *L. (Neopisalia) gibbera* nov.sp. (Westkaukasus: Krasnodar), *L. (N.) microphthalma* REITTER 1887 (Westkaukasus), *L. (Chondrelytropisalia) umbhakica* nov.sp. (Ostnepal), *L. (Homopisalia) hiarens* nov.sp. (Ostnepal) und *L. (H.) schawalleri* nov.sp. (Ostnepal). Weitere Nachweise von fünf beschriebenen Arten werden aus Krasnodar (Westkaukaus) und Ostnepal gemeldet, darunter auch ein Erstnachweis.

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Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 2011

Band/Volume: <u>0043_1</u>

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

Artikel/Article: New species and additional records of Leptusa from the Caucasus

region and the Himalaya (Coleoptera: Staphylinidae: Aleocharinae) 253-265