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Six new species, a new name, and additional records of *Lathrobium* from the Palaearctic region (Coleoptera: Staphylinidae: Paederinae)

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A b s t r a c t : Six species of *Lathrobium* GRAVENHORST, 1802 are described and illustrated: *Lathrobium kociani* nov.sp. (Kazakhstan), *L. retunsum* nov.sp. (East Nepal) of the *L. nepalense* group, *L. unguiferum* nov.sp. (Nepal: Dhaulagiri) of the *L. emodense* group, *L. spinans* nov.sp. (Nepal: Manaslu) of the *L. pectinatum* group, *L. jiajinum* nov.sp. (China: Sichuan) of the *L. bibaculatum* group, and *L. wolonicum* nov.sp. (China: Sichuan) of the *L. bibaculatum* group. The previously unknown female sexual characters of *L. makaluicum* ASSING, 2013 are illustrated. The preoccupied name *Lathrobium abruptum* ASSING, 2015 is replaced with the nomen novum *L. novabruptum*. Additional records of 21 species are reported, particularly from Nepal and China. The genus is now represented in the Palaearctic region by 579 species and nine subspecies. The Himalayan fauna currently includes 73 species, all of them micropterous and locally endemic. As many as 211 named species have been recorded from China.

Key words : Coleoptera, Staphylinidae, Paederinae, *Lathrobium*, Palaearctic region, Kazakhstan, Himalaya, China, taxonomy, new species, nomen novum, new records.

Introduction

By the end of 2014, the mega-diverse Holarctic genus *Lathrobium* GRAVENHORST, 1802 was represented in the Palaearctic region by 546 species and nine subspecies (SCHÜLKE & SMETANA 2015). Additional 28 species were described in 2015 (ANLAŞ 2015, ASSING 2015, PENG, LI et al. 2015, PENG, SUN et al. 2015, RYABUKHIN 2015). The most diverse regions are China (209 species; 67 of them confined to Yunnan), Japan (114 species), and the Himalaya (70 species) (ASSING 2015). The Himalayan fauna was revised by ASSING (2012b), with four subsequent supplements (ASSING 2013b, 2013g, 2014, 2015).

A revision of material recently made available to me by several museum curators and private collectors yielded six new species, one from Kazakhstan, three from Nepal, and two from the Chinese province Sichuan, as well as additional records of 21 named species. Moreover, a recent homonymy is rectified.

Material and methods

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

CAS..... Chinese Academy of Sciences, Beijing
 MNHUB..... Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)
 NME Naturkundemuseum Erfurt (M. Hartmann, assisted by W. Apfel)
 NMP..... National Museum of Natural History, Praha (J. Hájek)
 SMTD Staatliches Museum für Tierkunde, Dresden (O. Jäger)
 cAss..... author's private collection
 cKoc private collection Matúš Kocian, Praha
 cPüt private collection Andreas Pütz, Eisenhüttenstadt
 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). The images were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software, as well as a digital camera (Nikon Coolpix 995).

Body length was measured from the anterior margin of the mandibles (in resting position) to the abdominal apex, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, head length from the anterior margin of the frons 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.

Descriptions and additional records

Lathrobium brunnipes (FABRICIUS, 1792)

Material examined: Kazakhstan: 1 ♂, Almaty region, Talgar district, 43°16'N, 77°22'E, 8.V.2014, leg. Nakládal (cKoc); 1 ♂, 1 ♀, Almaty region, Ryskulov, 43°17'N, 77°18'E, 7.V.2014, leg. Nakládal (cKoc, cAss).

Comment: *Lathrobium brunnipes* has a trans-Palaearctic distribution. In Middle Asia, it has been recorded from Kazakhstan and Kyrgyzstan.

Lathrobium bernhaueri KOCH, 1937

Material examined: Georgia: 3 exs. [1 teneral], 5 km N Dimi, Adjamet river, 42°09'N, 42°45'E, 120 m, 23.VI.2013, leg. Kocian (cKoc, cAss).

Comment: The distribution of this species is confined to the Caucasus region.

Lathrobium tichomirovae COIFFAIT, 1981

Material examined: Russia: 4 exs., Krasnodarskiy Kray, Chernomoeskiy Mountains, NE Podgornye, 44°08'N, 41°04'E, 820 m, meadows, 28.V.2014, leg. Pütz (cPüt, cAss).

C o m m e n t : Like the preceding species, *L. tichomirovae* is endemic to the Caucasus region.

***Lathrobium permutatum* ASSING, 2009**

M a t e r i a l e x a m i n e d : Georgia: 2 exs., 5 km SW Telavi, Shuamta env., 41°54'N, 45°24'E, 900-1000 m, 3.VII.2013, leg. Kocian (cKoc, cAss); 1 ex., Kachetia, Tsiv-Gombori mountain range, 3 km N Sagarejo, 41°45'N, 44°19'E, 930 m, beech forest, 30.VI.2015, leg. Pütz (cPüt)k; 1 ex., Kachetia, Tsiv-Gombori mountain range, 5 km W Telavi, 41°54'N, 45°24'E, 1090 m, beech forest, 8.VII.2015, leg. Pütz (cAss).

C o m m e n t : *Lathrobium permutatum* has been recorded only from the West Caucasus region (Georgia, Russia).

***Lathrobium eppelsheimii* CZWALINA, 1999**

M a t e r i a l e x a m i n e d : Russia: Krasnodarskiy Kray, Lagonakskiy Mountains, Matazyk Mountain, 9 km S Guamka, 44°09'N, 39°55'E, 1080 m, 21.V.2014, leg. Pütz (cPüt).

C o m m e n t : *Lathrobium eppelsheimii* is endemic to the West Caucasus (Russia).

***Lathrobium wrasei* SCHÜLKE, 1990**

M a t e r i a l e x a m i n e d : Greece: 1♂, 2♀♀, Pelopónnisos, Killini Oros, Lake Stimpalia, 500 m, 3.IV.1992, leg. Frisch (MNHUB, cAss). Turkey: 1♂, Kayseri, Sultansazlığı Milli Park [ca. 38°20'N, 35°16'E], 7.IV.1992, leg. Hovorka (cAss).

C o m m e n t : *Lathrobium wrasei* was originally described from Georgia and subsequently reported also from the Turkish provinces Konya and Antalya (ANLAŞ 2013). The above specimens from the Pelopónnisos represent the first record from Greece.

***Lathrobium marani* KOCH, 1939**

M a t e r i a l e x a m i n e d : Kazakhstan: 2♀♀, Almaty region, NP Charyn Canyon, 43°40'N, 79°23'E, 16.-20.V.2014, leg. Nakládal (cKoc).

C o m m e n t : This Middle Asian species had been reported from Kazakhstan before.

***Lathrobium kociani* nov.sp. (Figs 1-7)**

T y p e m a t e r i a l : Holotype ♂: "Kazakhstan or., Almaty reg., GPS: 43°16'13"N 77°22'14"E, Talgar distr., 10.-15.v.2014, Oto Nakládal lgt. / Holotypus ♂ *Lathrobium kociani* nov.sp., det. V. Assing 2015" (cAss).

E t y m o l o g y : This species is dedicated to Matúš Kocian, specialist of Tachyporinae, in appreciation of the generous gift of the holotype.

D e s c r i p t i o n : Body length 5.8 mm; length of forebody 3.1 mm. Coloration: head and pronotum black; elytra black with the posterior margins indistinctly paler; abdomen black with the apex (segments VIII-X) indistinctly paler; legs and antennae dark-reddish.

Head (Figs 1-3) oblong, 1.12 times as long as broad and rather large in relation to pronotum; punctation moderately coarse and rather dense, slightly less dense in median dorsal portion; interstices without microsculpture and glossy. Eyes weakly projecting from lateral contours of head and small, approximately one-third as long as postocular region in dorsal view. Antenna 1.7 mm long.

Pronotum (Fig. 1) slender, 1.2 times as long as broad and 0.92 times as broad as head; punctation on average slightly finer than that of head; impunctate midline rather narrow; interstices without microsculpture.

Elytra (Fig. 1) approximately 0.8 times as long as pronotum; punctation rather dense and distinctly coarser than that of pronotum; interstices without microsculpture. Hind wings reduced.

Abdomen 1.08 times as broad as elytra; anterior impressions of tergites III-VI with pronounced coarse microsculpture; remainder of tergal surfaces with rather fine and moderately dense punctation; tergites III-VI in posterior portions with shallow microsculpture composed of strongly transverse meshes; tergite VII with more distinct microsculpture composed of shorter transverse meshes; posterior margin of tergite VII without palisade fringe; tergite VIII with sexual dimorphism.

♂: protarsomeres I-IV strongly dilated (Fig. 1); tergite VIII with convex posterior margin; sternites III-VI unmodified; sternite VII (Fig. 4) strongly transverse, with pronounced impression of triangular shape in postero-median portion, this impression with moderately dense strongly modified, short and stout black setae, posterior margin broadly and weakly concave; sternite VIII (Fig. 5) weakly transverse, in the middle with deep oblong impression, anterior portion and margins of this impression with variably modified setae, posterior portion of the impression without setae, posterior excision V-shaped and approximately one-fifth as deep as length of sternite; aedeagus (Figs 5-6) 0.8 mm long and weakly asymmetric in ventral view; ventral process moderately long, straight in lateral view, basally broad and apically acute in ventral view; dorsal plate short, lamellate, and weakly sclerotized, without separate basal portion; internal sac with large sclerotized structure of distinctive shape, without spines.

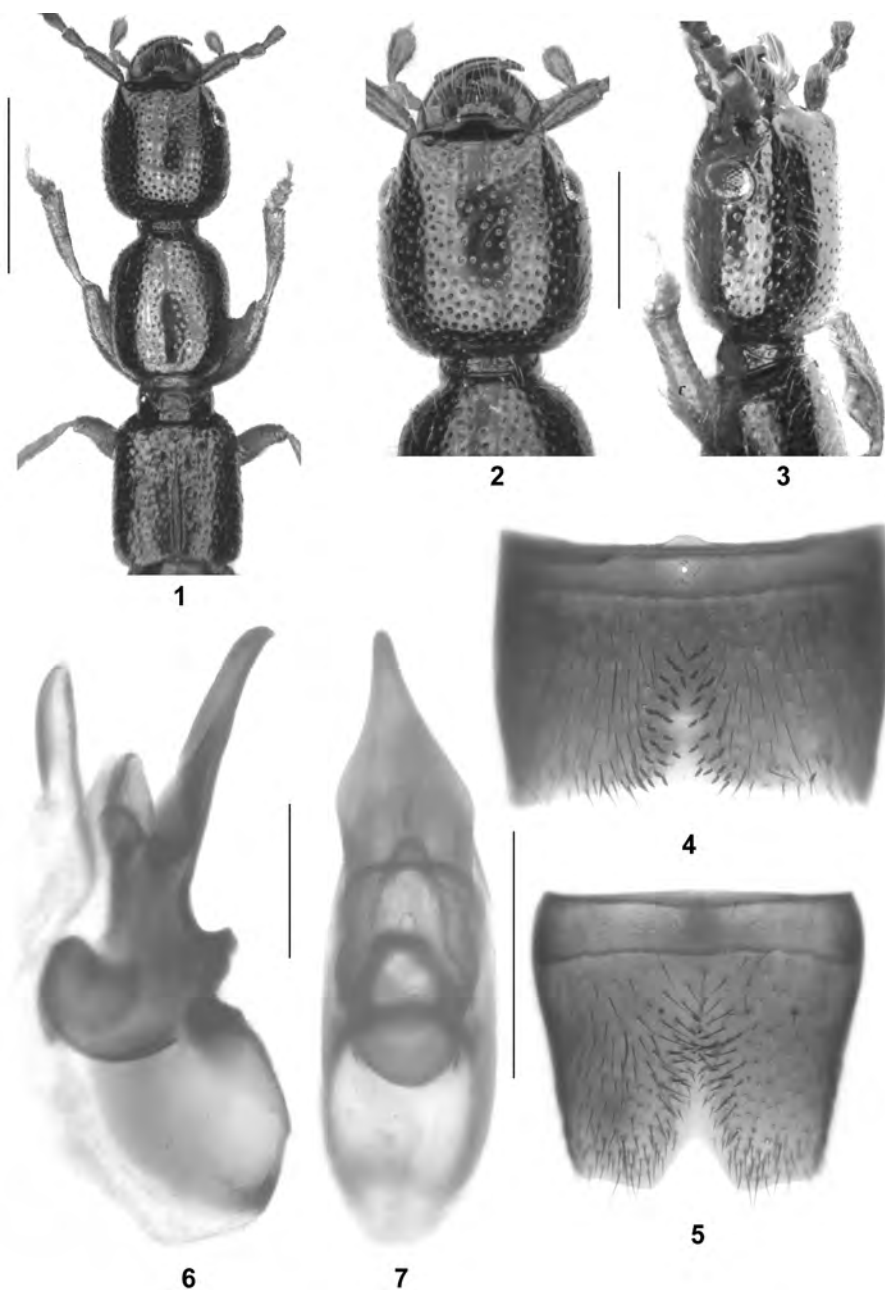
♀: unknown.

Comparative notes: Regarding its habitus, *L. kociani* somewhat resembles the widespread *L. impressum* HEER, 1841, from which it differs by the reddish legs, somewhat smaller body size, the absence of microsculpture on the head, the smaller eyes, the less oblong pronotum, the shorter and more slender elytra, the much sparser punctation and shallower microsculpture of the abdomen, and by the completely different male sexual characters. The presence of a voluminous dark structure in the internal sac of the aedeagus, however, suggests that it may be more closely related to the species of the *L. sinense* group, which previously included some species from China and Japan (ASSING 2013a, 2013c) and from which *L. kociani* is distinguished particularly by the absence of microsculpture on the head, darker coloration, smaller eyes, and the male sexual characters. For illustrations of *L. impressum* and the species of the *L. sinense* group see ASSING (2012a, 2013a, 2013c).

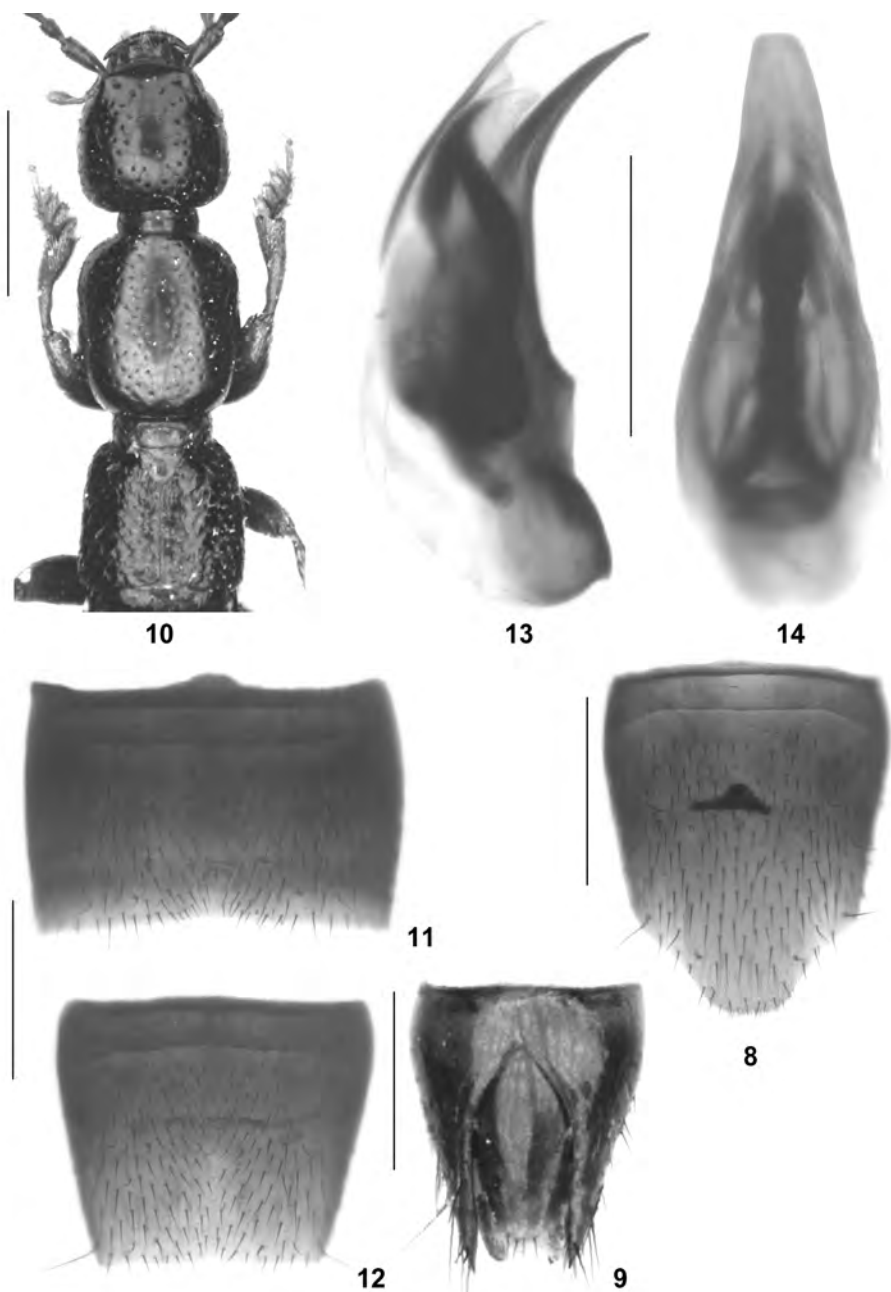
Distribution and natural history: The type locality is situated in the Almaty region, southeastern Kazakhstan. According to Google Earth, the altitude is approximately 1650 m.

***Lathrobium makaluicum* ASSING, 2013 (Figs 8-9)**

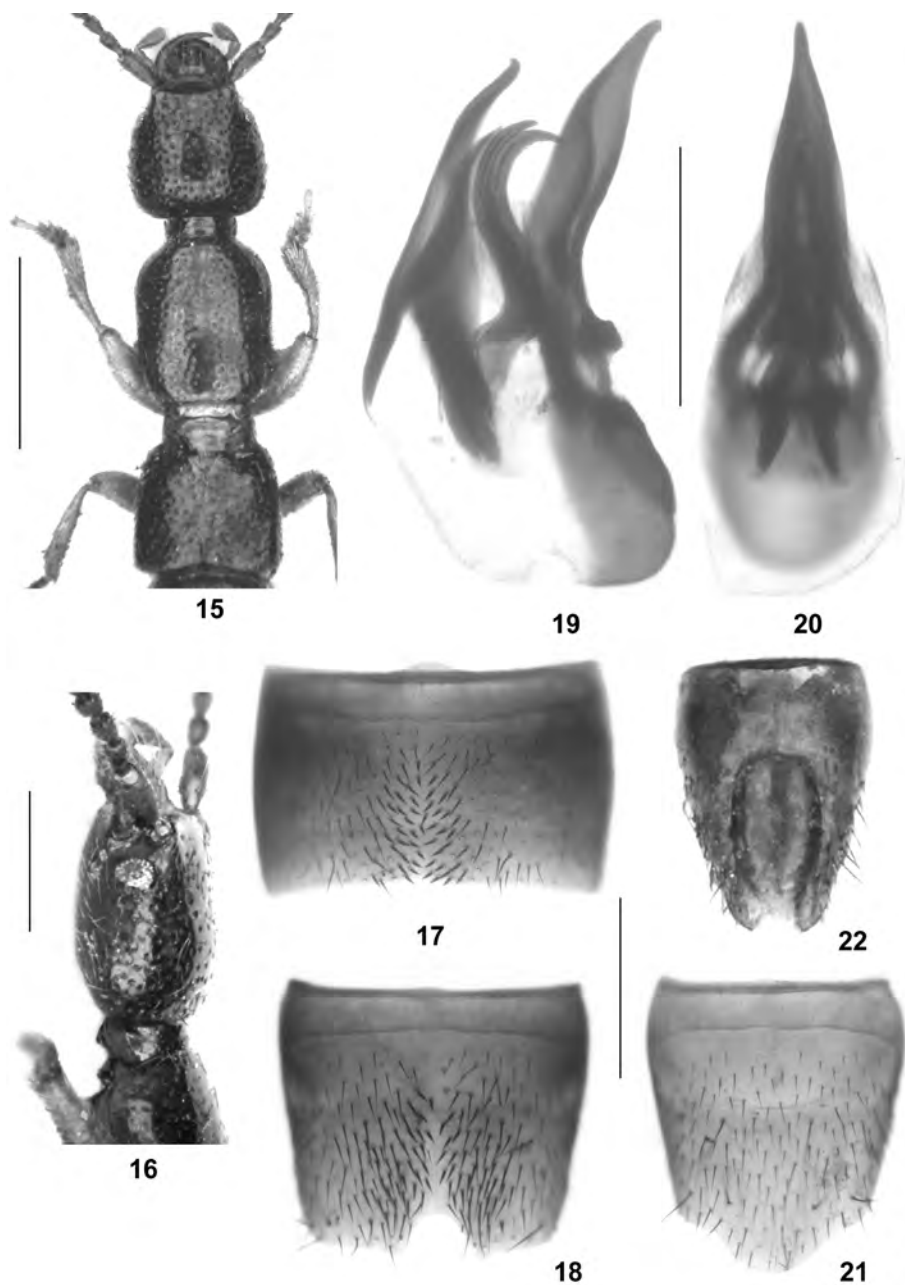
Material examined: Nepal: 4 exs., Barun valley, Mumbuk, 27°43'N, 87°13'E, 3600 m, 18.V.2014, leg. Schmidt (NME, cAss).



Figs 1-7: *Lathrobium kociani* nov.sp.: (1) forebody; (2) head in dorsal view; (3) head in lateral view; (4) male sternite VII; (5) male sternite VIII; (6-7) aedeagus in lateral and in ventral view. Scale bars: 1: 1.0 mm; 2-5: 0.5 mm; 6-7: 0.2 mm.



Figs 8-14: *Lathrobium makaluicum* ASSING (8-9) and *L. retunsum* nov.sp. (10-14): (8) female sternite VIII; (9) female abdominal segments IX-X; (10) forebody; (11) male sternite VII; (12) male sternite VIII; (13-14) aedeagus in lateral and in ventral view. Scale bars: 10: 1.0 mm; 8-9, 11-14: 0.5 mm.



Figs 15-22: *Lathrobium unguiferum* nov.sp.: (15) forebody; (16) head in lateral view; (17) male sternite VII; (18) male sternite VIII; (19-20) aedeagus in lateral and in ventral view; (21) female sternite VIII; (22) female abdominal segments IX-X. Scale bars: 15: 1.0 mm; 16-22: 0.5 mm.

Comment: The original description of this species is based on a unique male holotype from "Mumbug O Makalu 3500 m" (ASSING 2013b). The above specimens were collected near the type locality. The previously unknown female sexual characters are illustrated in Figs 8-9.

***Lathrobium retunsum* nov.sp.** (Figs 10-14)

Type material: Holotype ♂: "NEPAL Solu Khumbu, Taktor to Lamjura Pass, 3350-3450 m, 28.V.2013, leg. J. Schmidt, 27°34'37"N 86°30'07"E / Holotypus ♂ *Lathrobium retunsum* nov.sp., det. V. Assing 2015" (NME).

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

Description: Body length 6.5 mm; length of forebody 3.3 mm. Coloration: body blackish-brown with the abdominal apex slightly paler brown; legs and antennae dark-brown.

Head (Fig. 10) 1.05 times as broad as long; punctation rather coarse and moderately dense, sparser in anterior and median dorsal portions; interstices with distinct microreticulation. Eyes moderately small, slightly less than half as long as postocular region in dorsal view, and composed of approximately 50 ommatidia. Antenna 1.8 mm long.

Pronotum (Fig. 10) 1.13 times as long as broad and 1.06 times as broad as head; punctation similar to that of head; interstices with distinct microreticulation.

Elytra (Fig. 10) 0.53 times as long as pronotum; humeral angles weakly marked; punctation shallow and ill-defined; interstices without microsculpture. Hind wings completely reduced.

Abdomen broader than elytra; punctation moderately fine and dense, somewhat less dense on tergites VII and VIII than on anterior tergites; interstices with fine microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII obtusely pointed in the middle.

♂: protarsomeres I-IV strongly dilated (Fig. 10); sternite VII (Fig. 11) strongly transverse, approximately 1.65 times as broad as long, shallowly impressed in postero-median portion, this impression with very weakly modified setae, posterior margin broadly concave; sternite VIII (Fig. 12) 1.2 times as broad as long, weakly impressed along middle, pubescence not distinctly modified, posterior margin shallowly concave in the middle; aedeagus (Figs 13-14) 1.05 mm long; ventral process evenly curved in lateral view and apically broadly truncate in ventral view; dorsal plate with lamellate, long, and weakly sclerotized apical portion and without distinct basal portion; internal sac with dark membranous structures, but without sclerotized spines.

♀: unknown.

Comparative notes: As can be inferred from the external (head and pronotum with distinct microsculpture), as well as the male sexual characters (shapes and chaetotaxy of sternites VII and VIII; morphology of the aedeagus), *L. retunsum* belongs to the *L. nepalense* group (see ASSING 2012b), which is represented in the Himalaya, particularly in Central Nepal, by numerous species. Among the few species known from East Nepal, *L. retunsum* is similar to *L. makaluicum*, but differs by slightly larger body size, unmodified pubescence of the male sternites VII and VIII (distinctly modified in *L. makaluicum*), and by the morphology of the aedeagus (*L. makaluicum*: ventral process weakly angled in lateral view, much more slender and apically more acute in ventral

view; dorsal plate with distinct basal portion). For illustrations of *L. makaluicum* see ASSING (2013b), for figures of other species of the *L. nepalense* group see ASSING (2012b, 2014).

Distribution and natural history: The type locality is situated in Solukhumbu District, East Nepal. The holotype was collected at an altitude of approximately 3400 m.

***Lathrobium annapurnense* ASSING, 2012**

Material examined: Nepal: 1 ex., Annapurna, Lamjung Himal, below Namun pass, N-slope, 3700 m, 21.VIII.1995, leg. Fabrizi, Schmidt & Jäger (SMTD); 1 ex., Annapurna, Lamjung Himal, water divide between Khudi Khola, Chhar Khola and Myardi Khola, 4300 m, 16.VIII.1995, leg. Fabrizi, Schmidt & Jäger (cAss).

Comment: Based on currently available evidence, *L. annapurnense* is endemic to the Lamjung Himal in the Annapurna range (ASSING 2012b).

***Lathrobium unguiferum* nov.sp. (Figs 15-22)**

Type material: Holotype ♂: "NEPAL Myagdi distr., S-slope Ruyachaur Duri, 37-3900 m, 25.6.1998, leg. Berndt & Schmidt / Ankauf A. Dobbertin, Rostock, 2001, Museum Dresden / Holotypus ♂ *Lathrobium unguiferum* nov.sp., det. V. Assing 2015" (SMTD). Paratypes: 3 ♀: same data as holotype (SMTD, cAss).

Etymology: The specific epithet (Latin, adjective: carrying claws) alludes to the claw-shaped internal structures of the aedeagus.

Description: Body length 4.8-6.3 mm; length of forebody 2.3-2.8 mm. Coloration: body dark-brown to blackish-brown; legs yellowish-brown to brown; antennae reddish.

Head (Fig. 15) 1.02-1.05 times as broad as long; punctuation rather coarse and rather dense, slightly less dense in median dorsal portion; interstices without distinct microsculpture, but shallow traces visible in lateral and in posterior dorsal portions. Eyes (Fig. 16) not projecting from lateral contours of head, small, approximately 0.2 times as long as postocular region in dorsal view, and composed of approximately 30 ommatidia.

Pronotum (Fig. 15) approximately 1.25 times as long as broad and as broad as head; punctuation similar to that of head, but slightly less coarse; interstices without microsculpture.

Elytra (Fig. 15) short, approximately 0.55 times as long as pronotum; humeral angles weakly marked; punctuation shallow and ill-defined; interstices without microsculpture. Hind wings completely reduced. Metatibia somewhat compressed.

Abdomen broader than elytra; punctuation moderately fine and dense; interstices with fine microsculpture composed of transverse meshes; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: protarsomeres I-IV strongly dilated (Fig. 15); sternite VII (Fig. 17) strongly transverse, shallowly impressed and with moderately dense modified setae in postero-median portion, posterior margin broadly concave; sternite VIII (Fig. 18) transverse, 1.15 times as broad as long, broadly impressed and with a cluster of variably modified setae along the middle, posterior excision rather pronounced and nearly U-shaped, posterior margin on either side of this excision with small projection; aedeagus (Figs 18-19) 1.1 mm long; ventral process straight and apically acute in lateral view and symmetric in ventral view;

dorsal plate with long, strongly sclerotized, and apically weakly hooked apical portion, basal portion reduced to minute rudiment; internal sac with two rather massive, strongly sclerotized, and strongly curved spines, with an additional smaller and weakly curved spine, and with a large dark membranous structure.

♀: protarsomeres I-IV dilated, but somewhat less so than in male; sternite VIII (Fig. 21) approximately 1.1 times as long as broad and convexly produced posteriorly; tergite IX (Fig. 22) undivided in the middle and with rather short postero-lateral processes; tergite X (Fig. 22) weakly convex in cross-section and approximately 1.35 times as long as antero-median portion of tergite IX.

Comparative notes: Based on the external, as well as on the male and female sexual characters, *L. unguiferum* belongs to the *L. emodense* group (see ASSING 2012b), which previously included six species: *L. emodense* COIFFAIT, 1975 (SW-Annapurna), *L. curvum* ASSING, 2012 (Dhaulagiri), *L. spinosissimum* ASSING, 2012 (Annapurna: Lamjung Himal), *L. annapurnense* ASSING, 2012 (Annapurna: Lamjung Himal), *L. rude* ASSING, 2014 (SE-Annapurna), and *L. kiruense* ASSING, 2015 (SE-Annapurna). The new species is distinguished from all of them by the more transverse male sternite VIII with a deeper U-shaped posterior excision and by the morphology of the aedeagus (shapes of the ventral process, the dorsal plate, and the internal structures). It additionally differs from the externally similar and geographically close *L. curvum* (female unknown) by the shape and chaetotaxy of the male sternite VII (*L. curvum*: median impression deeper, more extensive, and with much more numerous and more strongly modified setae; posterior margin with median concavity), the shape and chaetotaxy of the male sternite VIII (*L. curvum*: median impression deeper, more extensive, and with much more numerous and more strongly modified setae; posterior excision much broader and less deep), the symmetric (ventral view), apically less acute, and less abruptly narrowed ventral process of the aedeagus, the apically less strongly hooked dorsal plate, and the number and shapes of the internal structures (*L. curvum*: with two similarly shaped strongly curved spines, without additional spine, and without large dark membranous structure). For illustrations of the other species of the *L. emodense* group see ASSING (2012b, 2014, 2015).

Distribution and natural history: The type locality is situated in the southern Dhaulagiri range at 28°33'N, 83°26'E. The specimens were sifted at an altitude of 3700-3900 m.

***Lathrobium lamjunense* ASSING, 2012**

Material examined: Nepal: 3 exs., Annapurna, Lamjung Himal, below Namun pass, S-slope, Dudh Pokhari, 4400-4600 m, 15.VIII.1995, leg. Fabrizi, Schmidt & Jäger (SMTD, cAss).

Comment: *Lathrobium lamjunense* is endemic to the Lamjung Himal (ASSING 2012b). The above material was collected at the type locality.

***Lathrobium spinans* nov.sp. (Figs 23-29)**

Type material: Holotype ♂: "NEPAL, Manaslu Mts., N slope, above Prok, 28°30'N, 84°49'E, 2950-3400 m, 27.V.2006, leg. J. Schmidt / Holotypus ♂ *Lathrobium spinans* nov.sp., det. V. Assing 2015" (NME). Paratypes: 2 ♀: same data as holotype (NME, cAss).

Etymology: The specific epithet is the present participle of the Latin verb *spinare* (to sting) and alludes to the spine-shaped ventral process of the aedeagus (ventral view).

Description: Body length 4.7-5.4 mm; length of forebody 2.3-2.5 mm. Coloration: forebody reddish; abdomen reddish-brown to brown; legs pale-reddish to yellowish-brown; antennae dark-reddish.

Head (Fig. 23) 1.03-1.07 times as long as broad; punctation moderately coarse and moderately dense, slightly less dense in median dorsal portion; interstices with microreticulation. Eyes not projecting from lateral contours of head, very small, less than 0.2 times as long as postocular region in dorsal view, and composed of barely 10 ommatidia. Antenna 1.2-1.3 mm long.

Pronotum (Fig. 23) approximately 1.25 times as long as broad and approximately as broad as head; punctation moderately dense, finer than that of head; interstices without microsculpture.

Elytra (Fig. 23) short, approximately 0.55 times as long as pronotum; humeral angles weakly marked; punctation shallow and ill-defined; interstices without microsculpture. Hind wings completely reduced. Protarsomeres I-IV with, femora and tibiae without sexual dimorphism.

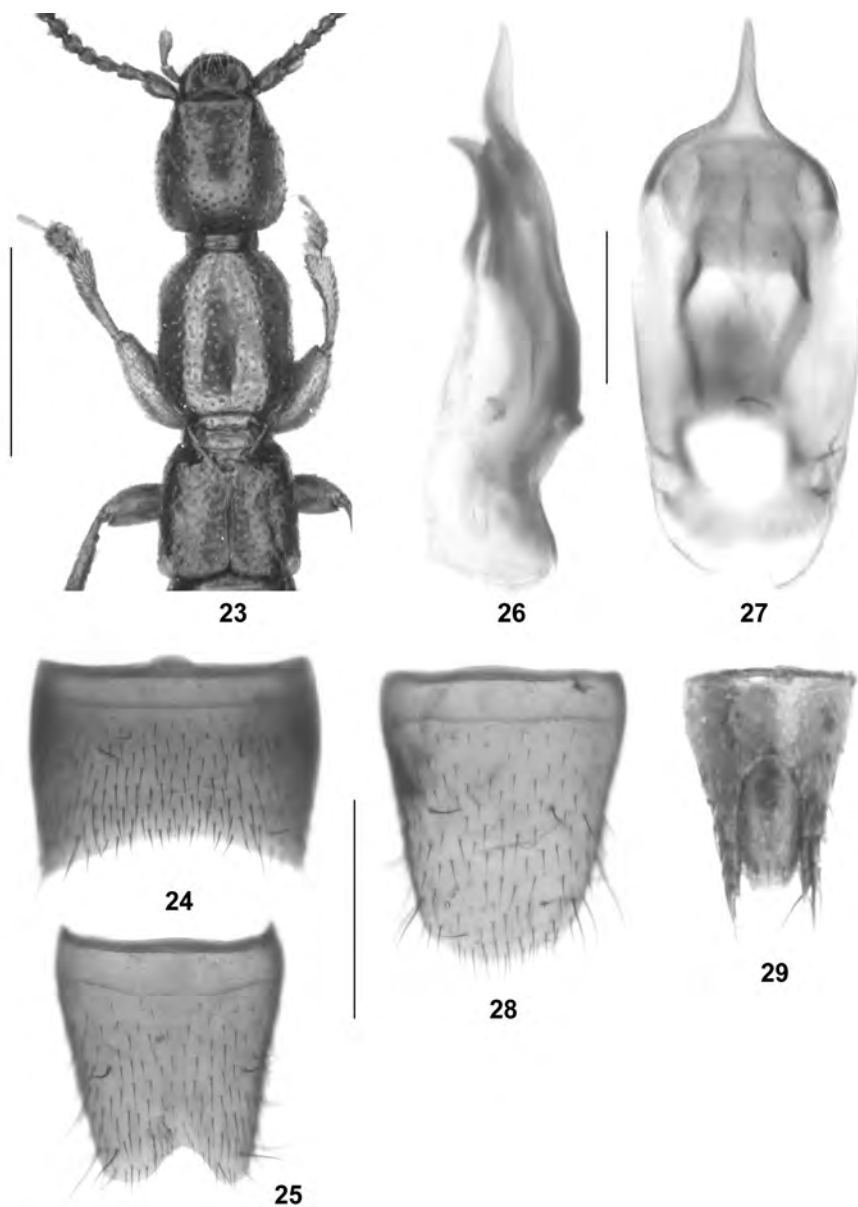
Abdomen slightly broader than elytra; punctation distinct and moderately dense; interstices with fine microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: protarsomeres I-IV strongly dilated (Fig. 23); sternite VII (Fig. 24) strongly transverse, with unmodified pubescence, and with broadly and distinctly concave posterior margin; sternite VIII (Fig. 25) oblong, 1.08 times as long as broad, with unmodified pubescence, and with rather deep and broad posterior excision; aedeagus (Figs 26-27) 0.75 mm long, symmetric, and dorso-ventrally flattened; ventral process apically distinctly spine-shaped; dorsal plate broad, short, and apically truncate.

♀: protarsomeres I-IV dilated, but distinctly less so than in male; sternite VIII (Fig. 28) approximately 1.2 times as long as broad and with evenly convex posterior margin; tergite IX (Fig. 29) undivided in the middle, postero-lateral processes short, only slightly extending beyond apex of tergite X; tergite X (Fig. 29) weakly convex in cross-section and approximately 1.35 times as long as antero-median portion of tergite IX.

Comparative notes: Based on external character (small body size, small eyes, pale coloration) and particularly the shape of the aedeagus (dorso-ventrally flattened; ventral process apically spine-shaped, dorsal plate short and broad), *L. spinans* belongs to the *L. pectinatum* group (see ASSING 2012b), the most speciose species group in Nepal. In the vast majority of the species of the *L. pectinatum* group, the chaetotaxy of at least the male sternite VII is strongly modified (with one or more combs of palisade setae); moreover, many species have sexually dimorphic femora or tibiae. The only geographically close species without such conspicuous modifications are *L. aculeatum* COIFFAIT, 1982 (Dhaulagiri range) and *L. spiculatum* ASSING, 2012, an endemic of the Langtang region. The new species is readily distinguished from both of them by the much broader aedeagus with a much shorter ventral process. For illustrations of *L. aculeatum*, *L. spiculatum*, and other species of the *L. pectinatum* group see ASSING (2012b, 2014).

Distribution and natural history: The type locality is situated in the northern Manaslu range. The specimens were sifted at an altitude between 2950 and 3400 m.



Figs 23-29: *Lathrobium spinans* nov.sp.: (23) forebody; (24) male sternite VII; (25) male sternite VIII; (26-27) aedeagus in lateral and in ventral view; (28) female sternite VIII; (29) female abdominal segments IX-X. Scale bars: 23: 1.0 mm; 24-25, 28-29: 0.5 mm; 26-27: 0.2 mm.

***Lathrobium hailuogouense* PENG, LI & ZHAO, 2012**

M a t e r i a l e x a m i n e d : China: Sichuan: 1 ex., Gongga Shan, 29°48'N, 102°04'E, 2580 m, sifted, 7.VI.2011, leg. Grebennikov (cAss).

C o m m e n t : *Lathrobium hailuogouense* is one of the three endemic *Lathrobium* species in the Gongga Shan (ASSING 2013d).

***Lathrobium ventricosum* ASSING, 2013**

M a t e r i a l e x a m i n e d : China: Sichuan: 2 exs., Gongga Shan, 29°51'N, 102°02'E, 3170 m, sifted, 9.VI.2011, leg. Grebennikov; 1 ex., same data, but 18.VI.2011 (CAS, cSme, cAss).

C o m m e n t : Like the preceding species, *L. ventricosum* is endemic to the Gongga Shan (ASSING 2013d).

***Lathrobium iunctum* ASSING & PENG, 2013**

M a t e r i a l e x a m i n e d : China: Sichuan: 5 exs., Emei Shan, 29°33'N, 103°20'E, 2440 m, sifted, 18.VI.2010, leg. Grebennikov; 7 exs., Emei Shan, 29°33'N, 103°21'E, 2290 m, sifted, 16.VI.2010, leg. Grebennikov; 3 exs., Emei Shan, 29°33'N, 103°20'E, 2340 m, sifted, 17.VI.2010, leg. Grebennikov (CAS, cSme, cAss); 1 ♀, Emei Shan, Leidongping, 29°32'N, 103°20'E, 2420 m, mixed forest, 9.-10.VI.2014, leg. Hájek & Růžička (NMP).

C o m m e n t : *Lathrobium iunctum* is endemic to the Emei Shan (ASSING et al. 2013).

***Lathrobium conexum* ASSING & PENG, 2013**

M a t e r i a l e x a m i n e d : China: Sichuan: 4 ♀ ♀, Emei Shan, 29°34'N, 103°21'E, 1950 m, sifted, 22.VI.2010, leg. Grebennikov; 3 exs., Emei Shan, 29°33'N, 103°20'E, 2340 m, sifted, 17.VI.2010, leg. Grebennikov (CAS, cSme, cAss).

C o m m e n t : Like *L. iunctum*, *L. conexum* is endemic to the Emei Shan (ASSING et al. 2013).

***Lathrobium hastatum* ASSING & PENG, 2013**

M a t e r i a l e x a m i n e d : China: Sichuan: 2 ♀ ♀, Emei Shan, 29°33'N, 103°20'E, 2440 m, sifted, 18.VI.2010, leg. Grebennikov; 7 ♀ ♀, Emei Shan, 29°33'N, 103°21'E, 2290 m, sifted, 16.VI.2010, leg. Grebennikov; 2 ♀ ♀, Emei Shan, 29°34'N, 103°21'E, 1950 m, sifted, 22.VI.2010, leg. Grebennikov; 1 ♂, Emei Shan, 29°33'N, 103°20'E, 2340 m, sifted, 17.VI.2010, leg. Grebennikov (CAS, cSme, cAss).

C o m m e n t : This species, too, is endemic to the Emei Shan. The sex ratio of the above material is biased; only one in a total of twelve specimens is a male.

***Lathrobium bisinuatum* ASSING & PENG, 2013**

M a t e r i a l e x a m i n e d : China: Sichuan: 4 exs., Emei Shan, Golden Summit, 29°31'N, 103°20'E, 3030 m, mixed forest with *Abies*, *Sorbus*, and bamboo undergrowth, sifted, 10.VI.2014, leg. Hájek & Růžička (NMP, cAss); 3 exs., Emei Shan, Taiziping Temple, 29°32'N, 103°20'E, 2820 m, mixed forest with *Abies* and bamboo undergrowth, sifted, 10.VI.2014, leg. Hájek & Růžička (NMP, cAss); 2 exs., Emei Shan, Yieyingdian Temple, 29°32'N, 103°20'E, 2420 m, secondary mixed forest above temple, sifted, 10.VI.2014, leg. Hájek & Růžička (NMP); 2 exs., Emei Shan, Leidongping, 29°33'N, 103°20'E, 2410 m, mixed forest with *Acer*, *Abies*, *Picea*, *Rhododendron*, around calcareous rocks, sifted, 9.VI.2014, leg. Hájek & Růžička (NMP, cAss).

Comment: *Lathrobium bisinuatatum*, another endemic of the Emei Shan, has been recorded only at altitudes above 2400 m (ASSING et al. 2013).

***Lathrobium jiajinum* nov.sp.** (Figs 30-38)

Type material: Holotype ♂: "CHINA: Sichuan Prov., 37 km N Baoxing, Qiao Qi vill., Jiajin Shan Nat. Forest Park, 15.VI.2014, 2800 m, 30°40'46"N, 102°41'47"E, / sift #21, mixed forest, with *Acer*, *Picea*, *Betula*, broadleaved trees, sifted rotten wood and around fallen trunks, J. Hájek & J. Růžicka leg. / Holotypus ♂ *Lathrobium jiajinum* nov.sp., det. V. Assing 2016" (NMP). **Paratypes:** 1♂, 2♀: same data as holotype (NMP, cAss).

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

Description: Body size subject to distinct sexual dimorphism: body length 6.5-7.2 mm (♂), 5.7-6.3 mm (♀); length of forebody 3.3-3.4 mm (♂), 3.0 mm (♀). Coloration: body blackish-brown to black, with the posterior margin of the elytra and the posterior margins of the posterior abdominal segments paler; legs and antennae reddish to reddish-brown.

Head (Fig. 30) approximately as long as broad, more or less distinctly dilated posteriorly; punctuation moderately coarse and moderately dense, less dense and less coarse in median dorsal portion; interstices with shallow microreticulation. Eyes moderately small, little more than one-fourth as long as postocular region in dorsal view, and composed of approximately 50-60 ommatidia. Antenna 1.5-1.9 mm long.

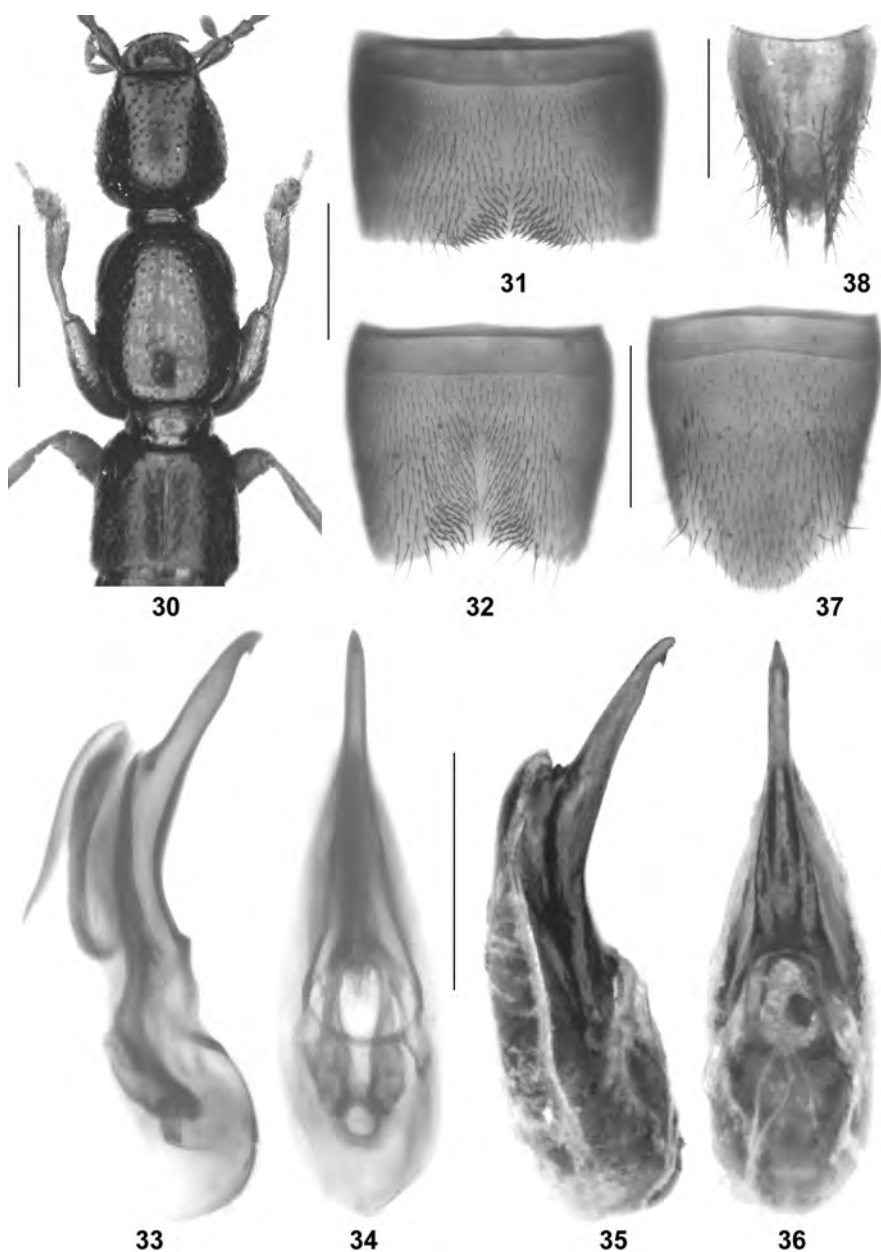
Pronotum (Fig. 30?) approximately 1.3 times as long as broad and 1.05-1.10 times as broad as head; punctuation moderately dense, finer than that of head; interstices without microsculpture; midline broadly impunctate.

Elytra (Fig. 30) approximately 0.55 times as long as pronotum; humeral angles weakly marked; punctuation shallow and ill-defined; interstices without microsculpture. Hind wings completely reduced. Protarsomeres I-IV with distinct sexual dimorphism.

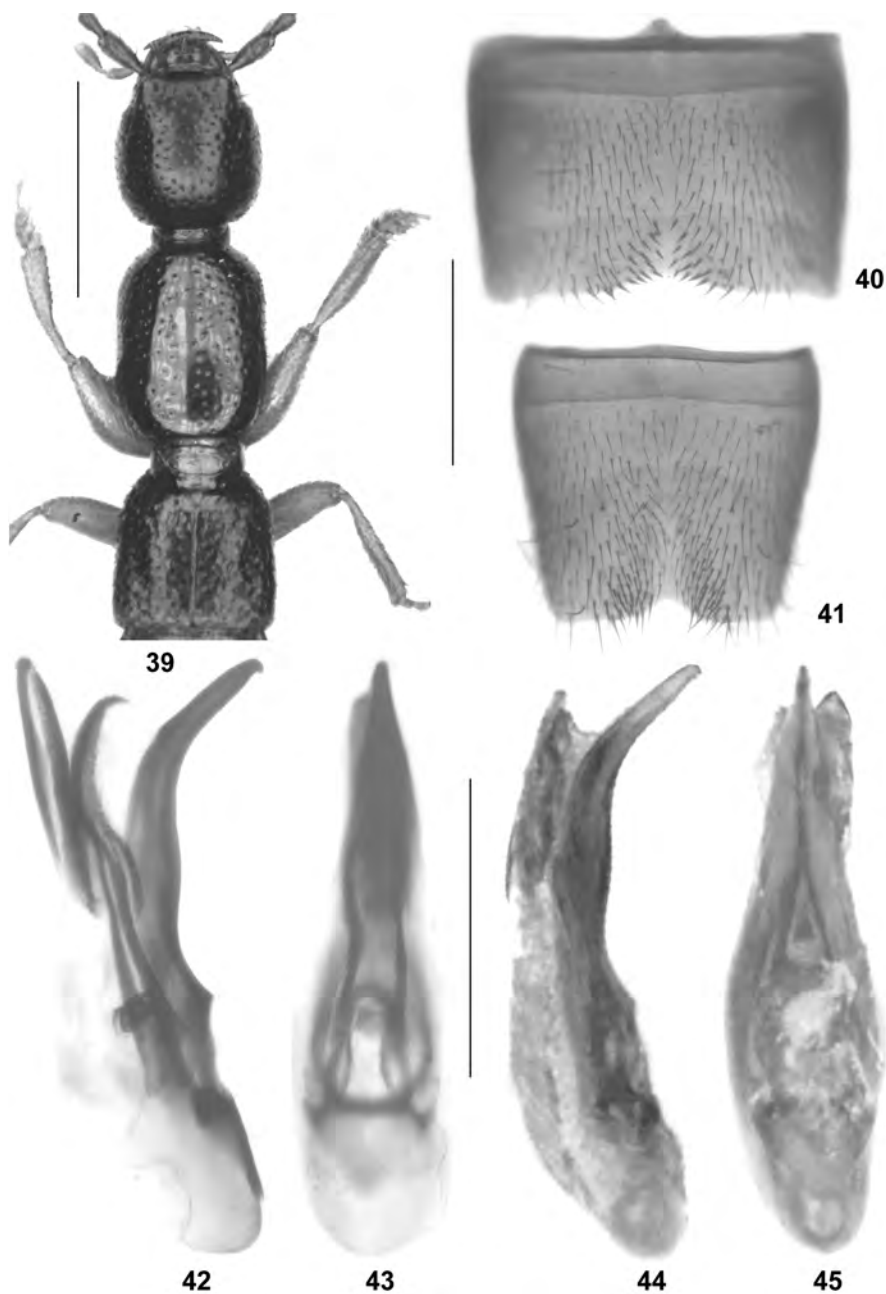
Abdomen slightly broader than elytra; punctuation distinct and dense, nearly as dense on tergite VII as on anterior tergites; microsculpture nearly obsolete; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: protarsomeres I-IV strongly dilated (Fig. 30); sternite VII (Fig. 31) strongly transverse, with postero-median impression, this impression with numerous modified short and stout black setae, posterior margin weakly, but distinctly concave in the middle; sternite VIII (Fig. 32) approximately 1.15 times as broad as long, posterior half of midline narrowly without pubescence, on either side of midline with modified pubescence posteriorly, posterior margin broadly and rather deeply concave; aedeagus (Figs 33-36) approximately 1.25 mm long, slender, and symmetric; ventral process apically bent and hooked; dorsal plate lamellate and weakly sclerotized, basal portion practically obsolete; internal sac with a long weakly sclerotized membranous structure dorsally and with two spine-shaped, more strongly sclerotized, and basally connected structures ventrally.

♀: protarsomeres I-IV dilated, but distinctly less so than in male; sternite VIII (Fig. 37) approximately 1.15 times as long as broad, posterior margin convexly produced in the middle; tergite IX (Fig. 38) undivided in the middle, postero-lateral processes distinctly projecting beyond apex of tergite X; tergite X (Fig. 38) flat in cross-section and slightly longer than antero-median portion of tergite IX.



Figs 30-38: *Lathrobium jiajinum* nov.sp.: (30) male forebody; (31) male sternite VII; (32) male sternite VIII; (33-36) aedeagus in lateral and in ventral view in transparent light (33-34) and in dry preparation (35-36); (37) female sternite VIII; (38) female abdominal segments IX-X. Scale bars: 30: 1.0 mm; 31-38: 0.5 mm.



Figs 39-45: *Lathrobium wolonicum* nov.sp.: (39) male forebody; (40) male sternite VII; (41) male sternite VIII; (42-45) aedeagus in lateral and in ventral view in transparent light (42-43) and in dry preparation (44-45). Scale bars: 39: 1.0 mm; 40-45: 0.5 mm.

Comparative notes: As can be inferred from the morphology of the aedeagus (symmetric, ventral process slender, dorsal plate lamellate, internal sac with two long sclerotized structures) and from the modifications of the male sternite VII and VIII, *L. jiajinum* belongs to the *L. bibaculatum* group, which was previously represented in Sichuan by seven species (ASSING 2013d, f). The new species is distinguished from other species of this group particularly by the distinctive shape of the ventral process of the aedeagus.

Distribution and natural history: The type locality is situated in the Jiajin Shan to the North of Baoxing, some 120 km to the west of Chengdu. The specimens were sifted from leaf litter in a mixed forest at an altitude of 2800 m.

***Lathrobium wolongicum* nov.sp.** (Figs 39-45)

Type material: Holotype ♂: "CHINA: Sichuan Prov., Wolong National Nature Res., Yinchanggou vill. env., Panda Valley, 2300 m, 30°58'08"N, 103°07'34"E, / 24.VI.2014, sift #27, depression with accumulated debris under rock walls, in narrow river valley above 2nd tunnel, J. Hájek & J. Růžicka leg. / Holotypus ♂ *Lathrobium wolongicum* nov.sp., det. V. Assing 2016" (NMP). Paratypes: 3 ♂♂: same data as holotype (NMP, cAss).

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

Description: Body length 5.3-5.8 mm; length of forebody 2.6-2.8 mm. Coloration: body dark-brown; legs yellowish-brown; antennae reddish.

Head (Fig. 39) weakly oblong, 1.04-1.06 times as long as broad; punctation moderately coarse and moderately dense, less dense and slightly less coarse in median dorsal portion; interstices with shallow microreticulation. Eyes moderately small, approximately one-fourth as long as postocular region in dorsal view, composed of approximately 50-60 ommatidia. Antenna 1.5-1.6 mm long.

Pronotum (Fig. 39) approximately 1.3 times as long as broad and 1.02-1.04 times as broad as head; punctation similar to that of head; interstices without microsculpture; midline moderately broadly impunctate.

Elytra (Fig. 39) approximately 0.55 times as long as pronotum; humeral angles weakly marked; punctation shallow and rather sparse; interstices without microsculpture. Hind wings completely reduced.

Abdomen slightly broader than elytra; punctation distinct and dense, nearly as dense on tergite VII as on anterior tergites; interstices with shallow microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: protarsomeres I-IV strongly dilated (Fig. 39); sternite VII (Fig. 40) moderately strongly transverse, with postero-median impression, this impression with approximately 30 modified short and stout black setae, posterior margin weakly concave, in the middle with more distinct concavity; sternite VIII (Fig. 41) approximately 1.15 times as broad as long, with shallow postero-median impression, on either side of this impression with a cluster of moderately modified setae, posterior excision small and shallow; aedeagus (Fig. 42-45) approximately 1.0 mm long, slender, and symmetric; ventral process bent at apical third and hooked apically; dorsal plate lamellate and weakly sclerotized, basal portion practically obsolete; internal sac with a lamellate apical structure dorsally,

ventrally with a long structure basally extending into a pair of long and slender sclerotized structures.

♀: unknown.

Comparative notes: Based on the morphology of the aedeagus (symmetric, ventral process slender, dorsal plate lamellate, internal structures) and on the modifications of the male sternite VII and VIII, *L. wolongicum* is assigned to the *L. bibaculatum* group (ASSING 2013d, f). The new species is distinguished from other species of this group particularly by the distinctive shape of the ventral process and by the internal structures of the aedeagus. In addition, it is characterized by small size and by the shapes and chaetotaxy of the male sternites VII and VIII.

Distribution and natural history: The type locality is situated in the Wolong National Nature Reserve in West Sichuan. The specimens were sifted from debris in a stream valley at an altitude of 2300 m.

***Lathrobium daliense* WATANABE & XIAO, 1994**

Material examined: China: Yunnan: 3 exs., Diancang Shan near Dali, 25°41'N, 100°07'E, 2760 m, sifted, 14.V.2010, leg. Grebennikov; 21 exs., Diancang Shan near Dali, 25°40'N, 100°08'E, 2730 m, sifted, 13.V.2010, leg. Grebennikov; 1 ex., Diancang Shan near Dali, 25°40'N, 100°07'E, 2760 m, sifted, 10.V.2010, leg. Grebennikov (CAS, cSme, cAss); 1 ex., Diancang Shan, E-slope of Zhonghe Shan, 25°41'N, 100°08'E, 2150-2270 m, 1.VI.2007, leg. Hájek & Růžicka (NMP).

Comment: *Lathrobium daliense* is endemic to - and common in - the Diancang Shan (ASSING 2013e).

***Lathrobium aokii* WATANABE & XIAO, 2000**

Material examined: China: Yunnan: 48 exs., Diancang Shan near Dali, 25°41'N, 100°07'E, 2760 m, sifted, 14.V.2010, leg. Grebennikov; 1 ex., Diancang Shan near Dali, 25°40'N, 100°08'E, 2730 m, sifted, 13.V.2010, leg. Grebennikov; 9 exs., Diancang Shan near Dali, 25°40'N, 100°07'E, 2760 m, sifted, 10.V.2010, leg. Grebennikov (CAS, cSme, cAss).

Comment: Like *L. daliense*, *L. aokii* is endemic to the Diancang Shan (ASSING 2013e).

***Lathrobium stipiferum* ASSING, 2013**

Material examined: China: Yunnan: 23 exs., Haba Shan, 27°22'N, 100°06'E, 3270 m, sifted, 29.VI.2012, leg. Grebennikov (CAS, cSme, cAss).

Comment: The type material of this recently described species was collected in three geographically close localities in the Haba Shan at altitudes of 2750-3200 m (ASSING 2013e).

***Lathrobium reticolle* ASSING, 2013**

Material examined: China: Yunnan: 1 ♀, Haba Shan, 27°22'N, 100°06'E, 3270 m, sifted, 29.VI.2012, leg. Grebennikov (cAss).

Comment: The original description is based on four males from the Haba Shan (ASSING 2013e).

***Lathrobium jizushanense* WATANABE & XIAO, 1997**

M a t e r i a l e x a m i n e d : China: Yunnan: 20 exs., Jizu Shan, 25°59'N, 100°21'E, 3220 m, sifted, 28.VI.2011, leg. Grebennikov; 16 exs., Jizu Shan, 25°58'N, 100°22'E, 2880 m, sifted, 30.VI.2011, leg. Grebennikov; 2 exs., same data, but 2840 m (CAS, cSme, cAss).

C o m m e n t : *Lathrobium jizushanense* has been recorded only from the Jizu Shan (ASSING 2013e).

***Lathrobium novabruptum* nov.nom.**

Lathrobium abruptum ASSING, 2015: 62 ff; preoccupied.

C o m m e n t : *Lathrobium abruptum* ASSING, 2015, a name recently given to a species from the Gongga Shan in Sichuan, China, is preoccupied by *L. abruptum* ASSING, 2014, the name of a species from West Nepal. The junior homonym is here replaced with the nomen novum *L. novabruptum*, a combination of the Latin adjective novus (new) and the original name.

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Zusammenfassung

Sechs Arten der Gattung *Lathrobium* GRAVENHORST, 1802 werden beschrieben und abgebildet: *Lathrobium kociani* nov.sp. (Kasachstan), *L. retunsum* nov.sp. (Ost-Nepal) aus der *L. nepalense*-Gruppe, *L. unguiferum* nov.sp. (Nepal: Dhaulagiri) aus der *L. emodense*-Gruppe, *L. spinans* nov.sp. (Nepal: Manaslu) aus der *L. pectinatum*-Gruppe, *L. jiajinum* nov.sp. (China: Sichuan) aus der *L. bibaculatum*-Gruppe und *L. wolongicum* nov.sp. (China: Sichuan) aus der *L. bibaculatum*-Gruppe. Die zuvor unbekannten weiblichen Geschlechtsmerkmale von *L. makaluicum* ASSING, 2013 werden abgebildet. Das primäre Homonym *Lathrobium abruptum* ASSING, 2015 wird durch *L. novabruptum* nov.nom. ersetzt. Weitere Nachweise von 21 Arten werden gemeldet, insbesondere aus Nepal und China. Die Gattung ist derzeit in der Paläarktis durch 579 Arten und neun Unterarten vertreten, von denen 73 im Himalaya endemisch sind. Insgesamt 211 Arten wurden bislang aus China nachgewiesen.

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