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A revision of Palearctic *Lobrathium*. IV. Three new species from Nepal and China, a new combination, and additional records (Coleoptera: Staphylinidae: Paederinae)

V. ASSING

A b s t r a c t : Three species of *Lobrathium* Mulsant & Rey 1878 are described and illustrated: *L. cavatum* nov.sp. (eastern Nepal: Kosi), *L. emeimontis* nov.sp. (China: Sichuan: Emei Shan), and *L. dabaicum* nov.sp. (China: Hubei: Daba Shan). One species described from China and Japan is moved from *Lathrobium* Gravenhorst 1802 to *Lobrathium*: *Lobrathium cylindricum* Bernhauer 1938, nov.comb. Additional records of 22 previously described species are presented. The genus is now represented in the Palearctic region by 123 species and one subspecies, with the vast majority (91 species and one subspecies) distributed in the East Palearctic. The distributions of three species are mapped.

Key words : Coleoptera, Staphylinidae, Paederinae, *Lobrathium*, Palearctic region, new species, new combination, new records, distribution.

Introduction

According to a recent revision, 114 species and one subspecies of *Lobrathium* Mulsant & Rey 1878 were previously known from the Palearctic region including Myanmar and North Vietnam, with the greatest diversity in the Himalaya (20 species), China (24 species), Taiwan (20 species), and Japan (18 species and one subspecies) (Assing 2012). For a comprehensive catalogue and keys to the species of the Himalaya and China see Assing (2012). In the meantime, four more species, one of them possibly synonymous, have been described from mainland China by Li et al. (2013). An additional, hypogean species was described from a Moroccan cave by Hernando (2012).

Among recently examined material from various public and private collections, three undescribed species were identified. In addition, this material yielded a new combination and new records of 22 partly rarely found species.

Material and methods

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

FMNH..... Field Museum of Natural History, Chicago (via L.H. Herman)

MNHUB..... Museum für Naturkunde der Humboldt-Universität, Berlin (J. Frisch)

NHMB Naturhistorisches Museum Basel (M. Geiser, I. Zürcher)

NHMW Naturhistorisches Museum Wien (H. Schillhammer)

NME Naturkundemuseum Erfurt (M. Hartmann)

cAss..... author's private collection

cPüt private collection Andreas Pütz, Eisenhüttenstadt

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

cSha..... private collection Alexey Shavrin, Daugavpils

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. The map was created using Map-Creator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the anterior margin of the frons 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, 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.

Species descriptions and additional records

Lobrathium heinzi (KORGE 1971)

Material examined: Turkey: 2♂♂, 1♀, Rize, Ayder, 2.-3.VI.1989, leg. Schönmann & Schillhammer (NHMW, cAss).

Comment: The known distribution of *L. heinzi* is confined to Rize and Gümüşhane provinces in northeastern Anatolia (ASSING 2007).

Lobrathium anale (LUCAS 1846)

Material examined: Morocco: 3♂♂, 1♀ [partly teneral], Tetouan, 600 m, 25.V.1994, leg. Majzlan (NHMW, cAss).

Comment: *Lobrathium anale* is widespread in the West Mediterranean and the Canary Islands. For a distribution map see ASSING (2007).

Lobrathium rugipenne (HOCHHUTH 1851)

Material examined: Greece: 1♂ [slightly teneral], Eubros Delta, 17.V.1991, leg. Schillhammer (NHMW); 2♂♂ [slightly teneral], Pelopónnisos, Ilia, Dytiki Elada, Efira, Katsarou river, 200 m, 10.V.1998, leg. Lebenbauer (NHMW); 1♂ [slightly teneral], Lesbos, 2 km W Plomari, 30 m, 9.VI.1996, leg. Jäch (NHMW). Turkey: I s t a n b u l : 1♂, 1♀, Şile - Ağva, 19.V.1987, leg. Schönmann & Schillhammer (NHMW, cAss); 1♂, Bolu, Abant Gölü, 20.V.1987, leg. Schönmann & Schillhammer (NHMW). K a s t a m o n u : 1♂, 45 km N Kastamonu, 25.V.1989, leg. Schönmann & Schillhammer (cAss). S i n o p : 2♂♂, N Boyabat, Dıranaz geçidi, 1000 m, 26.V.1989, leg. Schönmann & Schillhammer (NHMW, cAss). A n k a r a : 1♂, S Çerkeş, Işıkdağı geçidi, 12.VI.1989, leg. Schönmann & Schillhammer (NHMW). I z m i r : 1♂, Aydın Dagları, S Tire, 900 m, 20.V.1991, leg. Jäch (cAss). M u ğ l a : 1♀, Altınyayla, 1300 m, 22.V.1991, leg. Schönmann & Schillhammer (NHMW); 1♀, E Beyobaşı, 27.V.1991, leg. Schödl

(NHMW). *A n t a l y a* : 1♂ [slightly teneral], N Kumluca, 500 m, 24.V.1991, leg. Schödl (NHMW); 1♀ [slightly teneral], Antalya, E Kumluca, 23.V.1991, leg. Schönmann & Schillhammer (NHMW); 1♂, N Kumluca, Altinyaka, 24.V.1991, leg. Schönmann & Schillhammer (cAss).

C o m m e n t : The distribution of *L. rugipenne* ranges from the southern Balkans to the Caucasus region. For a map see ASSING (2007). Some of the above specimens collected in May and June are teneral.

***Lobrathium pravum* ASSING & SCHÜLKE 2002**

M a t e r i a l e x a m i n e d : Turkey: A d i y a m a n : 1♂, Narince, 7.IX.1991, leg. Wewalka (NHMW).

C o m m e n t : The distribution of *L. pravum* is confined to eastern Anatolia and Iraq (ASSING 2007; ASSING & SCHÜLKE 2002).

***Lobrathium schillhammeri* ASSING & SCHÜLKE 2002**

M a t e r i a l e x a m i n e d : Turkey: A d i y a m a n : 1♂, Nemrut Dağı, 1000-1800 m, 13.-15.V.1997, leg. Sama (MNHUB); 1♂, 1♀, Narince, 7.IX.1991, leg. Wewalka (NHMW, cAss).

C o m m e n t : *Lobrathium schillhammeri* was previously known only from Şanlıurfa province in southeastern Turkey (ASSING & SCHÜLKE 2002); the above specimens represent the first records since the original description.

***Lobrathium lederi* (EPPELSHEIM 1884)**

M a t e r i a l e x a m i n e d : Iran: 2 exs., Gilan province, S Astara, 5 km W Lavandvil, Koteh Komeh, 38°18'N, 48°47'E, 180 m, 10.X.2011, leg. Frisch (MNHUB, cAss); 1 ex., Gilan province, S Astara, Lavandvil, 38°18'N, 48°50'E, 30 m, 10.X.2011, leg. Frisch (MNHUB).

C o m m e n t : The type material of this species was revised recently. *Lobrathium lederi* is distributed in the mountains of the southern Caspian Sea Region, from the Caucasus to northern Iran (ASSING 2011, 2012).

***Lobrathium farsicum* ASSING 2007**

M a t e r i a l e x a m i n e d : Iran: 1♂, Kerman province, Rayen - Darb Behesht, 6 km W Goruh, 29°22'N, 57°19'E, 2870 m, 28.V.2010, leg. Frisch (MNHUB).

C o m m e n t : The distribution of this recently described species is confined to southwestern Iran. For a map see ASSING (2007).

***Lobrathium triste* (CAMERON 1924)**

M a t e r i a l e x a m i n e d : Pakistan: 3♂♂, 2♀♀ [partly teneral], Haramosh range, Sassli, under stones [date not specified], leg. Piffl (NHMW).

C o m m e n t : The distribution of *L. triste* ranges from northern Afghanistan and Pakistan to Uttaranchal. For a map see ASSING (2012).

***Lobrathium bicarinatum* ASSING 2012**

M a t e r i a l e x a m i n e d : India: 3♀♀, Uttaranchal, ca. 30 km N Bageshwar, Kathi env., 2100-2300 m, 27.-30.VI.2003, leg. Kejval & Trýzna (NHMW, cAss).

Comment: Male-based records of *L. bicarinatum* are known only from Uttaran-chal. For a map see ASSING (2012).

***Lobrathium brunneum* (CAMERON 1931)**

Material examined: India: 2 exs., West Bengal, Darjeeling District, Sakyong, 1140 m, 25.IX.1981, leg. Bhakta (NHMB, cAss).

Comment: This species was previously known only from the type locality ("Gopaldhara, Rungbong Vall.") in Sikkim (ASSING 2012).

***Lobrathium badium* (CAMERON 1924)**

Material examined: India: 1 ex., Uttarakhand, 10 km NW New Tehri, 30°27'N, 78°32'E, 1200 m, 9.-10.IV.2012 leg. Shavrin (cSha).

Comment: *Lobrathium badium* was previously known only from Himachal Pradesh and Uttaran-chal in northern India. For a map see ASSING (2012).

***Lobrathium wittmeri* (COIFFAIT 1982)**

Material examined: Nepal: 1♂, Birethanti-Goropani, 4.-9.VI.1992, leg. Jenis (NHMW).

Comment: The distribution of *L. wittmeri* is confined to central Nepal (ASSING 2012).

***Lobrathium cavatum* nov.sp. (Figs 1-6)**

Type material: Holotype ♂: "E-Nepal, 22-23.6.2000, Kosi prov., Basantapur env., 27.11N 87.27E, 2190 m [GPS], Jan Farkač lgt. / Nepal Expedition, Jan Farkač, David Král & Jan Schneider, 2000 / Holotypus ♂ *Lobrathium cavatum* sp.n., det. V. Assing 2013" (NHMB). Paratypes: 1♂ [aedeagus teratological], 1♀: same data as holotype (NHMB, cAss).

Etymology: The specific epithet (Latin, adjective: excavate) refers to the pronounced median impressions of the male sternites VII and VIII.

Description: Body length 8.0-8.5 mm; length of forebody 4.5-4.7 mm. Habitus as in Fig. 1. Coloration: body black, except for a subcircular and defined reddish-yellow spot near posterior margin of each elytron, this spot reaching neither posterior nor lateral elytral margins; legs blackish with reddish tarsi; antennae reddish-brown to brown.

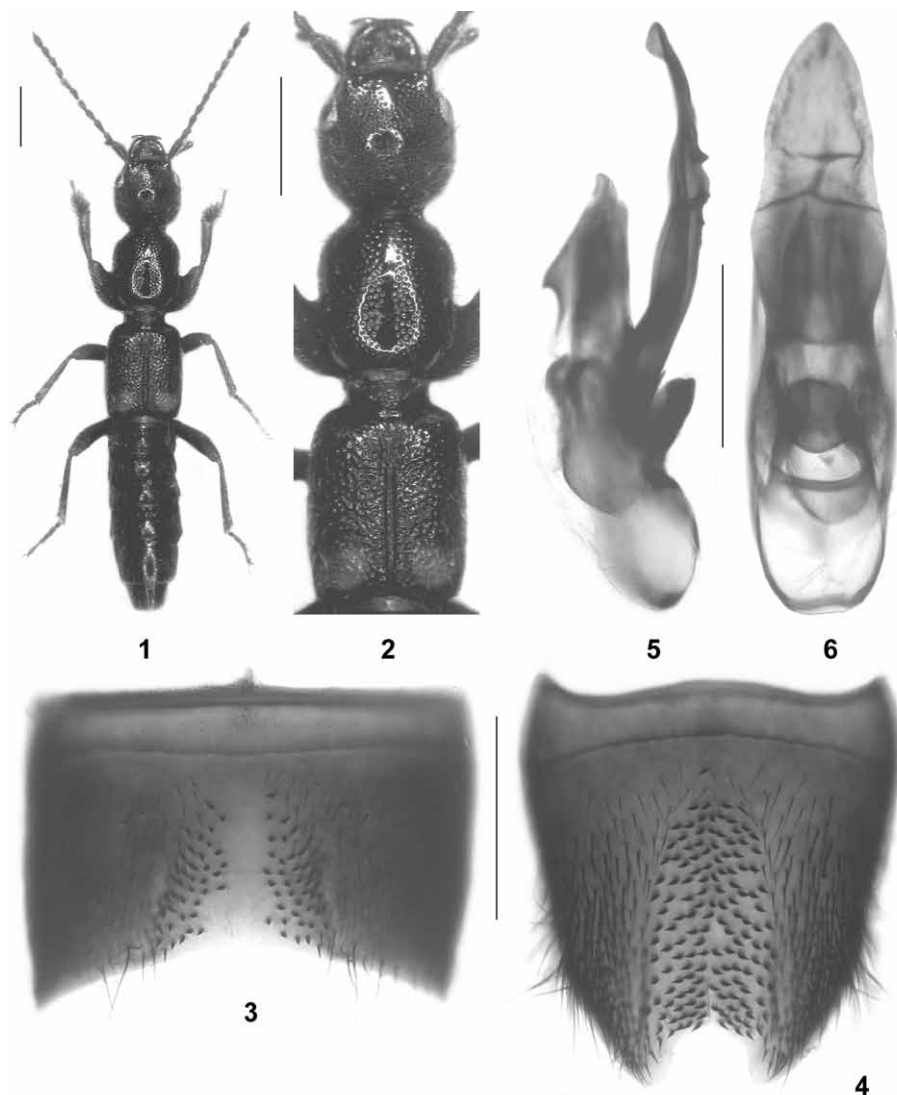
Head (Fig. 2) approximately as broad as long; posterior angles broadly rounded, weakly marked; punctuation areolate and extremely dense, except for the (nearly) impunctate frons and a sparsely punctate or impunctate transverse patch on vertex; interstices in lateral and posterior portions reduced to narrow ridges. Eyes of moderate and somewhat variable size, slightly to distinctly less than half as long as distance from posterior margin of eye to neck. Antenna approximately 2.7 mm long.

Pronotum (Fig. 2) short and broad, 1.16-1.18 times as long as broad and 0.97-1.00 times as broad as head; punctuation rather dense; interstices on average slightly narrower than diameter of punctures; impunctate midline moderately broad.

Elytra (Fig. 2) 0.95-0.98 times as long as pronotum; humeral angles marked; punctuation much coarser than that of pronotum and dense; interstices without microsculpture. Hind wings probably present. Protarsomeres strongly dilated in both sexes, without sexual dimorphism.

Abdomen slightly narrower than elytra; punctation fine and dense on tergites III-VI, slightly sparser on tergite VII and sparse on tergite VIII; tergites III-VI with shallow anterior impressions, these impressions with pronounced microsculpture and coarse punctures; interstices of remainder of tergal surfaces with fine transverse microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VI with weak and small median impression; sternite VII (Fig. 3) strongly transverse and with pronounced, sharply delimited median impression of triangular shape



Figs 1-6: *Lobrathium cavatum* nov.sp.: (1) habitus; (2) forebody; (3) male sternite VII; (4) male sternite VIII; (5-6) aedeagus in lateral and in ventral view. Scale bars: 1-2: 1.0 mm; 3-6: 0.5 mm.

in posterior half, this impression laterally with numerous strongly modified, short and stout black setae, posterior margin broadly and distinctly concave; sternite VIII (Fig. 4) approximately as long as broad and with pronounced and extensive, sharply delimited median impression in posterior three fourths, this impression with numerous strongly modified, short and stout black setae, posterior excision broad, rather deep, and somewhat U-shaped; aedeagus (Figs 5-6) 1.6 mm long; ventral process large and blade-shaped, with distinct carinae and tooth-like projections ventrally; dorsal plate short and with tooth-like dorsal process.

Comparative notes: Based on the external (punctuation of head, broad and short pronotum, elytra with defined reddish-yellow posterior spot, etc.) and particularly the similar male sexual characters (shapes and chaetotaxy of sternites VII and VIII; ventral process of aedeagus blade-shaped and ventrally with carinae and/or tooth-like projections; dorsal plate of aedeagus short and with more or less tooth-shaped posterior process), *L. cavatum* is closely allied to *L. kleebergi* ASSING 2012 (central and eastern Nepal), *L. guttula* (FAUVEL 1895) (Myanmar), *L. sinuatum* ASSING 2012 (central Nepal), and *L. bicarinatum* ASSING 2012 (N-India, central Nepal). It is reliably distinguished from these species only by the shapes and chaetotaxy of the male sternite VII and VIII, by the shape of the ventral process of the aedeagus (outline in ventral view, shape of the ventral carinae, apex with dorsal projection), and by the shape of the dorsal plate of the aedeagus (in this respect most similar to *L. kleebergi*, *L. sinuatum*, and *L. bicarinatum*). For illustrations of the compared species see ASSING (2012).

Distribution and natural history: The type locality is situated near Basantapur in Kosi province, eastern Nepal, at an altitude of 2190 m. The male paratype has the aedeagus strongly, teratologically malformed.

***Lobrathium hongkongense* (BERNHAEUER 1931)**

Material examined: China: Sichuan: 8 exs. [partly slightly teneral], Emei Shan, 29°30'N, 103°20'E, 500-1200 m, 4.-18.V.1989, leg. Kolibáč (NHMB, cAss); 4 exs. [partly slightly teneral], Emei Shan, 600-1060 m, 5.-19.V.1989, leg. Bocák (NHMB, cAss); 2 exs., Emei Shan, 1000 m, 4.-20.V.1989, leg. Kubán (NHMB, cAss). Yunnan: 1 ♂ [slightly teneral], Baoshan Pref., Gaoligong Shan, near Xiaoheshan N. R., 35 km SE Tengchong, 24°50'N, 98°46'E, 2110 m, deciduous forest, leaf litter sifted, 30.V.2007, leg. Pütz (cPüt); 1 ♂, Nujiang Lisu Aut. Pref., Gongshan Co., Gaoligong Shan, creek valley 17 km N Gongshan, 27°55'N, 98°40'E, 1525-1600 m, 20.VI.2005, leg. Smetana (cSme); 1 ♂ [teneral], ca. 100 km NW Lijiang, Hengduan Shan, Jiduan - Weixi, Jiduan - Ludie, 2200 m, 1.VII.1994, leg. Schillhammer (NHMW); 1 ♀, Weibao Shan, 25°12'N, 100°24'E, 2800-3000 m, 29.-30.VI.1992, leg. Král (NHMB).

Comment: The distribution of *L. hongkongense*, the most widespread species among East Palaearctic *Lobrathium*, is mapped in ASSING (2012). Some of the above specimens collected in May and July are teneral.

***Lobrathium tortile* ZHENG 1988 (Map 1)**

Material examined: China: Shaanxi: 1 ♂, Daba Shan, pass 20 km NW Zhenping, 32.1°N, 109.4°E, 26.-28.VI.2001, leg. Turna (cAss); 5 ♀ ♀, Qinling Shan, 115 km WSW Xi'an, above Houzhenzi, 33°50'N, 107°47'E, 1450 m, 5.VII.2001, leg. Smetana (cSme); 1 ♂, 15 km SW Dongjiangkou, 1700 m, 14.-17.VII.1998, leg. Bolm (NHMB). Hubei: 1 ♀, Daba Shan, creek valley 8 km NW Muyuping, 31°29'N, 110°22'E, 1550-1650 m, 18.VII.2001, leg. Smetana (cSme). Gansu: 19 ♂ ♂, 26 ♀ ♀ [mostly teneral], N Chengxian, W-Qinling Shan, 34°08'N, 105°47'E, 1750 m, moist valley with stream and ponds, meadow with *Artemisia*, 28.VII.2012, leg. Assing

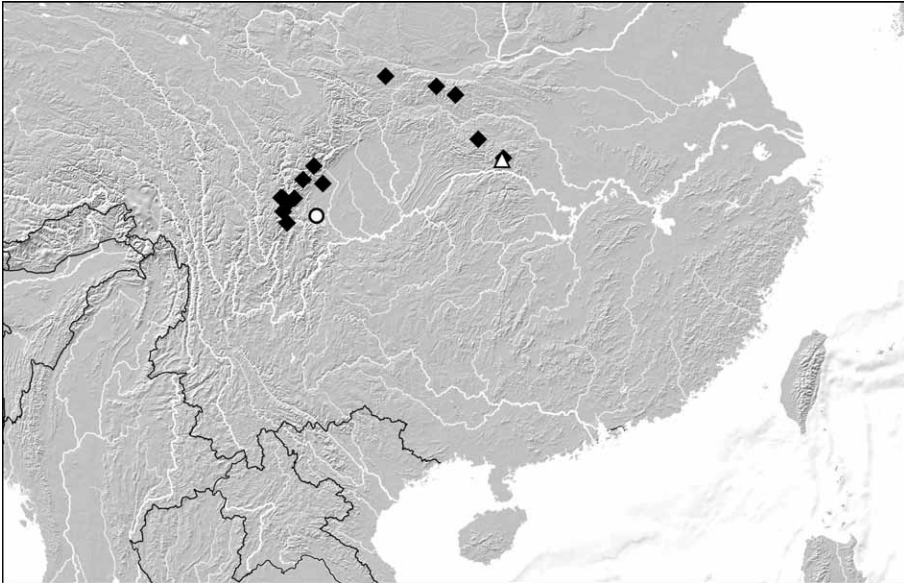
(cAss, MNHUB). **Sichuan**: 4♂, 1♀, Daxue Shan, N Kangding, 30°03'N, 101°57'E, 2600-2700 m, 22.&24.V.1997, leg. Pütz (cPüt, cAss); 1♂, Gongga Shan, Hailuoguo Glacier Park, river valley ca. 1 km above Camp 1, 29°36'N, 102°04'E, 2100 m, 28.&31.V.1997, leg. Pütz (cPüt); 1♂ [teneral], Ya'an Pref., Shimian Co., Daxue Shan, road Anshunchang-Wanba, 12 km W Shimian, 1300 m, 9.VII.1999, leg. Pütz (cAss); 1♀, 70 km W Chengdu, Jiulonggou env. near Dayi, 28.VI.-2.VII.1995, leg. Jindra (cAss).

Comment: *Lobrathium tortile* had previously been recorded from Shaanxi, Hubei, and Sichuan (ASSING 2012); the currently known distribution is illustrated in Map 1. The specimens collected in Gansu in July are mostly teneral.

Lobrathium gladiatum ZHENG 1988

Material examined: **China**: **Sichuan**: 5 exs. [partly teneral], Wenjian Distr., Guanxian Co., 56 km NW Chengdu, Qincheng Shan, 30°54'N, 103°33'E, 975 m, 18.VI.1999, leg. Pütz (cPüt, cAss); 8 exs. [teneral], 65 km NW Chengdu, 8 km W Taping, 30°53'N, 103°33'E, 800-1000 m, 18.V./3.-4.VI.1997, leg. Pütz (cPüt, cAss).

Comment: *Lobrathium gladiatum* has been recorded only from Sichuan; for a distribution map see ASSING (2012). Most of the above specimens are teneral.



Map 1: Distributions of *Lobrathium tortile* ZHENG (diamonds), *L. emeimontis* nov.sp. (circle), and *L. dabaicum* nov.sp. (triangle) in China.

Lobrathium hebeatum ZHENG 1988

Material examined: **China**: **Shaanxi**: 1♂, Qinling Shan, pass on road Zhouzhi-Foping, 105 km SW Xi'an, 33°40'N, 107°58'E, 1700 m, 3.VII.2001, leg. Smetana (cSme). **Gansu**: 1♀, W-Qinling Shan, NW Longnan, 34°03'N, 104°10'E, 2200 m, SW-slope with shrubs, litter sifted, 1.VIII.2012, leg. Assing (cAss). **Sichuan**: 1♂, Daxue Shan, 7 km W Kangding, 29°59'N, 101°55'E, 3150 m, 23.-26.V.1997, leg. Pütz (cPüt); 1♂, Gongga Shan, Hailuoguo Glacier Park, river valley ca. 1 km above Camp 1, 102°04'N, 29°36'E, 2100 m, 28.&31.V.1997, leg. Pütz (cPüt); 1♀, Ya'an Pref., Shimian Co., Xiaoxiang Ling, pass between

Shimian and Ganluo, 27 km SE Shimian, 20°03'N, 102°31'E, 2450 m, swamp, 8.VII.1999, leg. Pütz (cPüt); 1♂, Daxue Shan, N Kangding, 30°03'N, 101°57'E, 2600-2700 m, 22.&24.V.1997, leg. Pütz (cAss); 1♂, Daxue Shan, river valley 5 km E Kangding, 30°03'N, 102°00'E, 2500-2600 m, 24.VI.1999, leg. Pütz (cPüt); 2♀, Daliang Shan, pass Xichang-Meigu, Zhaojue env., 12.-14.VI.1998, leg. Jindra & Trýzna (cSme). Y u n n a n : 2♂♂, 3♀♀, Dali Bai Aut. Pref., Diancang Shan, 5 km SSW Dali, 25°39'N, 100°08'E, 2800 m, 26.III.2003, leg. Smetana (cSme, cAss).

C o m m e n t : The previously known distribution of *L. hebeatum* included Shaanxi, Sichuan, and Yunnan and is mapped in ASSING (2012).

***Lobrathium configans* ASSING 2012**

M a t e r i a l e x a m i n e d : China: Q i n g h a i : 1♂, Laji Shan, 27 km SSW Ledu, pass road, 36°16'N, 102°16'E, 2955 m, stream valley, under stone, 13.VII.2011, leg. Wrase (cSch). H u b e i : 1♂, Daba Shan, mountain range NE Muyuping, creek valley 4 km N Muyuping, 1700 m, 21.VII.2001, leg. Smetana (cSme). S i c h u a n : 1♂, Daxue Shan, 5 km E Kangding, 30°03'N, 102°00'E, river valley, ca. 3000 m, 20.&23.V.1997, leg. Pütz (cPüt), 1♂, Jiajin Shan, 30°23'N, 102°17'E, 3400 m, 15.VI.2002, leg. Janata (cAss). Y u n n a n : 1♂, Hengduan Shan, Yanmen, 28°01'N, 98°54'E, 1800 m, 20.VI.2005, leg. Janata (cAss); 1♂, Lugu Lake, Luo Shui, 27°45'N, 100°45'E, 8.-9.VII.1992, leg. Jendek (NHMW); 1♂, 1♀, Yulongxue Shan, Baishui, 27°08'N, 100°14'E, 2900-3500 m, 7.-12.VII.1990, leg. Kubán (NHMB, cAss).

C o m m e n t : *Lobrathium configans* is rather widespread and common in China; the above male from Qinghai represents a new province record. For a distribution map see ASSING (2012).

***Lobrathium taureum* ASSING 2012**

M a t e r i a l e x a m i n e d : China: H u b e i : 1♂, 1♀, Daba Shan, creek valley 8 km NW Muyuping, 31°29'N, 110°22'E, 1550-1650 m, 18.VII.2001, leg. Smetana (cSme, cAss); 11♂♂, 2♀♀, Daba Shan, mountain range NE Muyuping, 4 km N Muyuping, 1700 m, 21.VII.2001, leg. Smetana (cSme, cAss). G a n s u : 3♂♂ [partly teneral], N Chengxian, W-Qinling Shan, 34°08'N, 105°47'E, 1750 m, moist valley with stream and ponds, meadow with *Artemisia*, 28.VII.2012, leg. Assing (cAss).

C o m m e n t : The currently known distribution (Gansu, Hubei, Beijing) suggests that *L. taureum* is probably widespread in China; for a map see ASSING (2012). The above specimens from Gansu represent a new province record; they are partly teneral.

***Lobrathium cholaicum* ASSING 2012**

M a t e r i a l e x a m i n e d : China: T i b e t : 1♂ [teneral], Gi Towng County, Gi Towng env., 30°41'N, 97°15'E, 3870 m, 13.IX.1996, leg. Li (MNHUB).

C o m m e n t : This micropterous species has been recorded only from Tibet; for a map see ASSING (2012).

***Lobrathium bimembre* ASSING 2012**

M a t e r i a l e x a m i n e d : China: Y u n n a n : 1♀ [macropterous], Dali Bai Auton. Pref., Diancang Shan, W Dali, 25°42'N, 100°06'E, 2970 m, sifted near rocks and under small shrubs, 28.V.2007, leg. Pütz (cPüt); 1♀, same data, but 25°42'N, 100°07'E, 2930 m, litter sifted, 28.V.2007, leg. Pütz (cPüt); 2♂♂, 5♀♀ [1♀ macropterous], Nujiang Lisu Aut. Pref., Gaoligong Shan, pass 24 km NW Liuku, 7 km E Pianma, 25°58'N, 98°41'E, 3150 m, bamboo with shrubs, litter sifted, 9.VI.2007, leg. Pütz (cPüt, cAss); 1♀, Nujiang Lisu Aut. Pref., Gaoligong Shan, valley

18 km W Gongshan, 27°48'N, 98°30'E, 3020 m, mixed forest, litter, moss, wood sifted, 7.VI.2007, leg. Pütz (cPüt); 1 ♀, Hengduan Shan, Yanmen, 28°01'N, 98°50'E, 33 m, 16.VI.2005, leg. Janata (cSme).

C o m m e n t : The known distribution of this wing-dimorphic species is confined to several localities in the Gaoligong Shan, the Diancang Shan, and the environs of Yanmen in Yunnan. For a map see ASSING (2012).

***Lobrathium daxuense* ASSING 2012**

M a t e r i a l e x a m i n e d : China: S i c h u a n : 2 ♂♂, Ganzi Pref., Daxue Shan, 5 km E Kangding, 102°00'N, 30°03'E, ca. 3000 m, 20.&23.V.1997, leg. Pütz (cPüt, cAss); 1 ♀, Gongga Shan, Hailuoguo Glacier Park, ca. 3.5 km above Camp 3, ca. 3200 m, 29.V.1997, leg. Pütz (cPüt); 1 ♂, Gongga Shan, above Camp 2, 2850 m, 26.VII.1994, leg. Smetana (cSme).

C o m m e n t : The above specimens were collected at or near the localities where the type specimens were found. For a map see ASSING (2012). All the specimens that have been studied so far are micropterous.

***Lobrathium duplex* ASSING 2012**

M a t e r i a l e x a m i n e d : China: S i c h u a n : 13 ♂♂, 4 ♀♀, Ganzi Pref., Daxue Shan, 5 km E Kangding, 102°00'N, 30°03'E, ca. 3000 m, 20.&23.V.1997, leg. Pütz (cPüt, cAss); 2 ♂♂, 2 ♀♀, Gongga Shan, Hailuoguo Glacier Park, Camp 2 env., 2650 m, 30.V.1997, leg. Pütz (cPüt, cAss); 1 ♀, Gongga Shan, Hailuoguo Glacier Park, river valley ca. 1 km above Camp 1, 102°04'N, 29°36'E, 2100 m, 28.&31.V.1997, leg. Pütz (cPüt); 1 ♂, 1 ♀ [♀ macropterous], Emei Shan, Thunder Cave, 2100-2300 m, 9.-12.VII.1995, leg. Heinz (cSme, cAss); 2 ♂♂, 1 ♀ [♀ macropterous], Emei Shan, 1000 m, 4.-20.V.1989, leg. Kubán (NHMB, cAss); 1 ♀, same data, but 500 m (NHMB); 2 ♀♀, Emei Shan, 2640 m, 6.V.1989, leg. Bocák (NHMB); 1 ♂, Jiajin Shan, 30°23'N, 102°17'E, 3400 m, 15.VI.2002, leg. Janata (cSme); 1 ♀, Xilingxue Shan, 2100-3100 m, 1.-3.VIII.1996, leg. Kasantsev (NHMB).

C o m m e n t : Like *L. bimembre*, *L. duplex* is wing-dimorphic, with the macropterous morph much rarer than the micropterous morph. Accordingly, only two out of the 30 above specimens, both of them females, are macropterous. Some of the specimens were collected at or near the localities where the types were found. For a map see ASSING (2012).

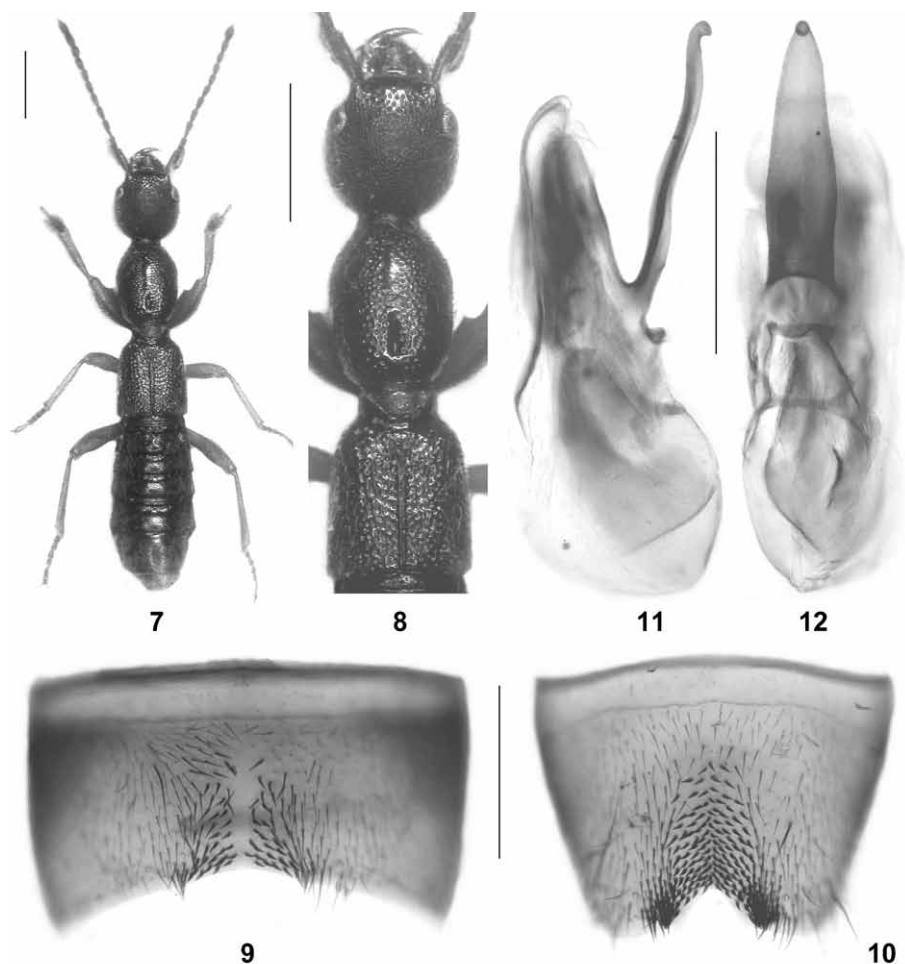
***Lobrathium emeimontis* nov.sp. (Figs 7-12, Map 1)**

T y p e m a t e r i a l : Holotype ♂: "China, Sichuan, 103.20el, 29.30nw, Mt. Emei 2600 m, 4.-15.V.1989, S. & J. Kolibáč / Holotypus ♂ *Lobrathium emeimontis* sp. n., det. V. Assing 2013" (NHMB).

E t y m o l o g y : The specific epithet is composed of the name of the mountain where the species was discovered and of the genitive of the Latin noun mons (mountain).

D e s c r i p t i o n : Body length 7.0 mm; length of forebody 4.0 mm. Habitus as in Fig. 7. Coloration: head and pronotum blackish-brown; elytra brown; abdomen dark-brown with paler apex; legs and antennae reddish.

Head (Fig. 8) 1.05 times as long as broad; posterior angles broadly rounded, almost obsolete; punctation areolate and extremely dense, somewhat sparser on frons; interstices reduced to narrow ridges; dorsal surface matt, except for frons. Eyes of moderate size, approximately one third as long as distance from posterior margin of eye to neck. Antenna 2.5 mm long.



Figs 7-12: *Lobrathium emeimontis* nov.sp.: (7) habitus; (8) forebody; (9) male sternite VII; (10) male sternite VIII; (11-12) aedeagus in lateral and in ventral view. Scale bars: 7-8: 1.0 mm; 9-12: 0.5 mm.

Pronotum (Fig. 8) 1.35 times as long as broad and approximately 0.95 times as broad as head, distinctly tapering posteriad, strongly convex in cross-section; punctuation dense and coarser than that of head; interstices much narrower than diameter of punctures; impunctate midline rather narrow.

Elytra (Fig. 8) 0.73 times as long as pronotum and slightly dilated posteriad; humeral angles weakly marked; punctuation coarser than that of pronotum and dense; interstices without microsculpture. Hind wings reduced. Protarsomeres I-IV strongly dilated.

Abdomen distinctly broader than elytra; punctuation fine and very dense; posterior margin of tergite VII with palisade fringe.

♂: sternite VII (Fig. 9) strongly transverse and with moderately pronounced median impression of triangular shape posteriorly, this impression with a cluster of approxi-

mately 20 strongly modified, short and stout black setae and narrowly without setae in the middle, posterior margin broadly and distinctly concave; sternite VIII (Fig. 10) transverse and with moderately pronounced and extensive median impression in posterior two thirds, this impression with numerous strongly modified, short and stout black setae, posterior excision broadly V-shaped, on either side of this excision with tuft of dense black setae; aedeagus (Figs 11-12) 1.3 mm long; ventral process long and slender, apically slightly hooked in lateral view; dorsal plate long and thin in lateral view.

Comparative notes: Based on the similar habitus and above all on the similarly derived shape and chaetotaxy of the male sternite VII and the morphology of the aedeagus, *L. emeimontis* is closely allied to *L. cholaicum* from southeastern Tibet and *L. daxuense* from Sichuan. It is readily distinguished from both species by the considerably denser punctation of the head, the distinctly more transverse male sternite VII, the different chaetotaxy of the male sternite VIII, and on the much longer and more slender ventral process of the aedeagus. The shape of the ventral process somewhat resembles that of the wing-dimorphic *L. duplex* from Sichuan, from which *L. emeimontis* is distinguished by shorter antennae, denser punctation of the head, the different chaetotaxy of the male sternite VII, the more extensive median impression of the male sternite VIII, the distinctly longer ventral process of the aedeagus, slightly smaller body size, and the paler coloration of the legs and antennae. For illustrations of the compared species see ASSING (2012).

Distribution and natural history: The type locality is situated in the Emei Shan in western Sichuan (Map 1) at an altitude of 2600 m. The holotype is apparently slightly teneral. The presence of a palisade fringe at the posterior margin of tergite VII suggests that, like some of its close relatives, *L. emeimontis* may be wing-dimorphic and more widespread.

***Lobrathium dabaicum* nov.sp.** (Figs 13-18, Map 1)

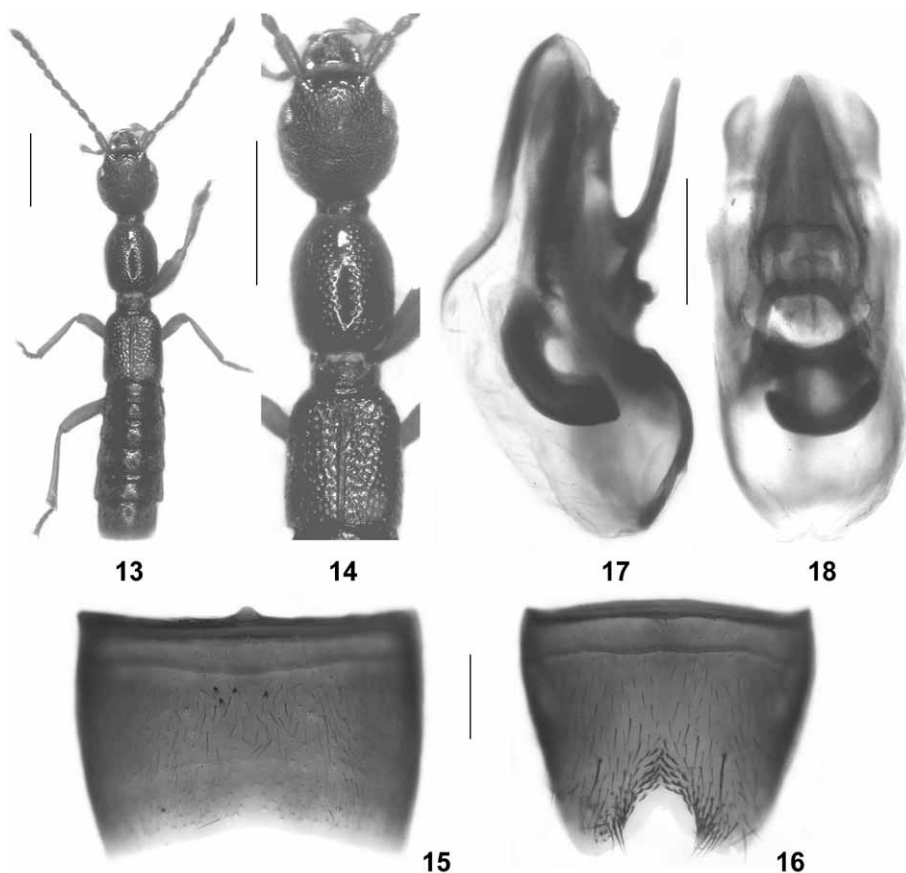
Type material: Holotype ♂: "China, NW Hubei, Shennongjia Nat. Res., 1.-5. Jul 1998, 1700-2500 m, Bolm lgt. / Holotypus ♂ *Lobrathium dabaicum* sp.n., det. V. Assing 2013" (NHMB).

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

Description: Body length 6.0 mm; length of forebody 3.3 mm. Habitus as in Fig. 13. Coloration: forebody brown, each elytron with subcircular, not very distinct reddish spot posteriorly, this spot reaching neither suture nor posterior or lateral elytral margins; abdomen dark-brown with dark-reddish apex; legs and antennae reddish.

Head (Fig. 14) 1.08 times as long as broad and of oval shape; posterior angles obsolete; punctation areolate and extremely dense, sparser on frons; interstices reduced to narrow ridges; dorsal surface matt, except for frons. Eyes of moderate size, approximately one third as long as distance from posterior margin of eye to neck. Antenna rather long and slender, 2.3 mm long.

Pronotum (Fig. 14) 1.35 times as long as broad and 0.86 times as broad as head, distinctly tapering posteriad, strongly convex in cross-section; punctation of irregular density and coarser than that of head; impunctate midline moderately broad.



Figs 13-18: *Lobrathium dabaicum* nov.sp.: (13) habitus; (14) forebody; (15) male sternite VII; (16) male sternite VIII; (17-18) aedeagus in lateral and in ventral view. Scale bars: 13-14: 1.0 mm; 15-18: 0.5 mm.

Elytra (Fig. 14) 0.78 times as long as pronotum and slender; humeral angles weakly marked; punctation coarser than that of pronotum and dense; interstices without microsculpture. Hind wings reduced. Protarsomeres I-IV strongly dilated.

Abdomen distinctly broader than elytra; punctation fine and very dense; interstices with shallow microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VII (Fig. 15) moderately transverse and with shallow, small median impression posteriorly, posterior margin broadly concave; sternite VIII (Fig. 16) transverse and with small median impression posteriorly, this impression with relatively few strongly modified, short and stout black setae, posterior excision rather deep and broadly U-shaped; aedeagus (Figs 17-18) 0.75 mm long; ventral process relatively short and blade-shaped; dorsal plate long and somewhat bisinuate in lateral view; internal sac with large, curved, dark membranous structure basally.

Comparative notes: Based on the similar habitus and above all on the similarly derived male sexual characters, *L. dabaicum* is closely related to *L. cholaicum*

and allied species. It is distinguished from all of them by the shapes and chaetotaxy of the male sternites VII and VIII, by the coloration, and, except *L. emeimontis*, by the conspicuously dense punctuation of the head.

Distribution and natural history: The type locality is situated in the Da Shennongjia range in the eastern Daba Shan (Map 1) at an altitude between 1700 and 2500 m. Additional data are not available.

***Lobrathium cylindricum* (BERNHAUER 1938), nov.comb.**

Lathrobium cylindricum BERNHAUER 1938: 37 f.

Type material examined: Syntypes: 1 ♀: "Unzen bei Shimabara, Japan / cylindricum Brnh. Cotypus Lathrobium / Chicago NHMus M.Bernhauer Collection / Lobrathium scabripenne (Sharp), Gusarov det. 1990" (FMNH); 1 ex. [segments VIII-X of abdomen missing]: "Unzen bei Shimabara, Japan / cylindricum Bernh. Typus / cylindricum Brnh. Typus Lathrobium / Chicago NHMus M.Bernhauer Collection / Lobrathium scabripenne (Sharp), Gusarov det. 1990" (FMNH).

Comment: The original description is based on an unspecified number of syntypes, among them at least one male, from "Japan: Unzen bei Shimabara; Nordwestl. China: Chinkiang" (BERNHAUER 1938). Two female syntypes, which had been studied by V.I. Gusarov approximately 20 years ago, were located in the Bernhauer collection at the FMNH. Whether or not the type specimens from Japan and China are conspecific can be clarified only when the material from China is available for study. At present the whereabouts of this material, which may include the male seen by Bernhauer, is unknown. The two examined specimens from Japan clearly belong to *Lobrathium*, not to *Lathrobium* GRAVENHORST 1802. The supramarginal line of the elytra is distinct. According to Vladimir Gusarov's identification labels attached to the specimens, *L. cylindricum* is conspecific with, and consequently a junior synonym of *Lathrobium scabripenne* SHARP 1874. However, before such a synonymy is proposed, the type material of *L. scabripenne* and the syntype material of *L. cylindricum* from China will have to be examined.

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Zusammenfassung

Drei Arten der Gattung *Lobrathium* Mulsant & Rey 1878 werden beschrieben und abgebildet: *L. cavatum* nov.sp. (Ostnepal: Kosi), *L. emeimontis* nov.sp. (China: Sichuan: Emei Shan) und *L. dabaicum* (China: Hubei: Daba Shan). Eine aus China und Japan als *Lathrobium* beschriebene Art wird in die Gattung *Lobrathium* gestellt: *Lobrathium cylindricum* BERNHAUER 1938, nov.comb. Weitere Nachweise von 22 beschriebenen Arten werden gemeldet. Die Gattung ist in der Paläarktis derzeit mit 123 Arten und einer Unterart vertreten; die Ostpaläarktis ist mit 91 Arten und einer Unterart deutlich artenreicher als die Westpaläarktis. Die Verbreitungsgebiete von drei Arten werden anhand einer Karte illustriert.

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