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On the *Lathrobium* fauna of Japan (Coleoptera: Staphylinidae: Paederinae)

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A b s t r a c t : Six species of *Lathrobium* GRAVENHORST 1802 from Japan are described and illustrated: *L. biexcisum* nov.sp. (Honshu), *L. loebli* nov.sp. (Honshu), *L. kuramaicum* nov.sp. (Honshu), *L. duplebarbatum* nov.sp. (Kyushu), *L. horridum* nov.sp. (Kyushu), and *L. inflatum* nov.sp. (Honshu). Three species originally attributed to *Lathrobium* are excluded from the genus and two synonymies are proposed: *Pseudobium kobense* (SHARP 1874), nov.comb., = *Pseudobium hunanicum* ASSING 2012, nov.syn; *Lobrathium scabripenne* (SHARP 1874), nov.comb., = *Lathrobium cylindricum* BERNHAUER 1938, nov.syn.; "*Lathrobium" monilicorne* (SHARP 1889). Lectotypes are designated for *Lathrobium pollens* SHARP 1889, *L. kobense* SHARP 1874, *L. scabripenne* SHARP 1874, and *L. monilicorne* SHARP 1889. Additional records of nine species are provided. Two species previously known only from China are reported from Japan for the first time. The genus is now represented in Japan by 105 species, 100 of them micropterous, one wing-dimorphic, and four macropterous. A checklist of the *Lathrobium* species recorded from Japan is provided.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Lathrobium*, Palaearctic region, Japan, new species, new combinations, new synonymies, catalogue, new records, distribution

Introduction

According to SMETANA (2004) and an update of this catalogue (SCHÜLKE unpubl.), the speciose Holarctic genus *Lathrobium* GRAVENHORST 1802 is currently represented in Japan by 100 described species. However, considering that only eleven of these species were known prior to 1985 and that even in recent years new species have been discovered almost every year, mostly by Yasuaki Watanabe (Tokyo), there is little doubt that the true diversity of the Japanese *Lathrobium* fauna is greater than currently known. On the other hand, several of the species described in the 19th century have not been subject to modern revisions, so that their identity and even their generic affiliations are uncertain. Several previously revised species originally attributed to *Lathrobium* by SHARP (1874, 1889) were transferred to other genera of Lathrobiina such as *Tetartopeus* CZWALINA 1888 and *Pseudolathra* CASEY 1905. Moreover, the micropterous *L. pollens* SHARP 1889, for instance, was described based on material from three geographically distant localities in two islands (Honshu, Kyushu), suggesting that the original type series is composed of at least three species. Nevertheless, a lectotype had not been designated.

The vast majority (94 %) of the *Lathrobium* species previously recorded from Japan is micropterous and presumably more or less locally endemic. Only six species are macropterous and more widespread. The diversity of the micropterous *Lathrobium* fauna of Honshu is far more diverse than that of other regions of Japan. Disregarding the doubtful *L. pollens*, 69 species, i.e. 74 %, of the micropterous *Lathrobium* species have been recorded from the largest of the Japanese islands, followed by Shikoku (16 species), Kyushu (5 species), Nishi-no-shima (an island to the west of Honshu; 2 species), and Awaji-shima (an island between Honshu and Shikoku; 1 species). Not a single micropterous species is known from Hokkaido. In contrast to the flightless *Lathrobium* species known from China, which all have very restricted distributions, some of the micropterous species from Japan have been recorded from several mountain ranges.

The present paper was originally stimulated by some unidentified *Lathrobium* specimens collected and forwarded to me by Tomás Lackner, Brno. Additional material subsequently came from several museum and private collections. Moreover, previous studies (e.g., ASSING 2013a-c) suggested that some *Lathrobium* species recorded from China may be present also in Japan, a distribution previously confirmed only for *L. dignum* SHARP 1874. For this and other reasons, the identities of the previously unrevised species described by SHARP (1874, 1889) required clarification.

In the literature, flightless species with strongly or completely reduced hind wings and shortened elytra have synonymously been referred to as brachypterous (with short wings), micropterous (with very small wings), or apterous (without wings). Since, strictly speaking, the elytra are wings too and always present, the term "micropterous" is used here.

Material and methods

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

BMNH The Natural History Museum, London (R.G. Booth)

MHNG Muséum d'Histoire Naturelle, Genève (G. Cuccodoro)

NHMW Naturhistorisches Museum Wien (H. Schillhammer)

NMNHP National Museum of Natural History, Praha (J. Hájek)

cAss.....author's private collection

cRou..... private collection Guillaume de Rougemont, Oxford

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 maps were created using MapCreator 2.0 (primap) software.

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 margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra (at the sutural angles), 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.

Lathrobium species from Japan

General results

The material studied comprised sixteen species, nine of them previously described. Two of these species, one of them macropterous and one wing-dimorphic, had been known only from China and represent the first records from Japan. Six species, four from Honshu and two from Kyushu, are newly described. Based on a revision of type material, three species are excluded from *Lathrobium*. One of them is transferred to *Pseudobium* MULSANT & REY 1878 and one to *Lobrathium* MULSANT & REY 1878. The third species belongs to an undescribed genus of Lathrobina. Two new synonymies are proposed, one in *Pseudobium* and one in *Lobrathium*. A syntype of *L. pollens* from Miyanoshita is designated as the lectotype, so that now the identity of the species is clarified and the type locality is unambiguously defined.

After the above changes, the *Lathrobium* fauna of Japan includes 105 described species, 100 of them micropterous, one wing-dimorphic, and four macropterous. The wing-dimorphic and two of the macropterous species have been recorded also from China; three of the macropterous species are known also from the Russian Far East. Honshu hosts 74 micropterous species, Shikoku 16, and Kyushu seven. Three additional micropterous species have been recorded from Nishi-no-shima (2 species) and Awaji-shima (1 species).

Lathrobium imminutum Assing 2013 (Fig. 29, Map 1)

M a t e r i a l e x a m i n e d : Japan: 1♂, 2♀♀, Honshu, Osaka-fu, Sakai, Yamato river, 25.IX.1934, leg. Yano (BMNH, cAss); 1♀, Osaka-fu, Yodogawa, 23.IX.1934, leg. Yano (BMNH).

C o m m e n t : This species was originally described from the Chinese provinces Beijing and subsequently reported also from Heilongjiang (ASSING 2013b, c). The above specimens, two of which have type labels ("*Neobisnius tenuis*", a manuscript name) by Cameron attached to them, represent the first records from Japan. The currently known distribution is illustrated in Map 1. The ventral process of the aedeagus (Fig. 29) is apically slightly more slender in the above male than in the two males seen from China, but since no additional distinguishing characters were observed, this difference is attributed to intra- rather than interspecific variation.

Lathrobium masumotoi WATANABE 2011

M a t e r i a l e x a m i n e d : Japan: 13, 19, Honshu, Nagano Pref., Norikura Kósen, South Alps, 18.IX.2011, leg. Lackner (cAss).

C o m m e n t : The original description is based on type material from the Northern Japanese Alps in Nagano Prefecture (WATANABE 2011).



Map 1: Distributions of *Lathrobium imminutum* ASSING (circles), *Pseudobium kobense* (SHARP) (diamonds) and *Lobrathium scabripenne* (SHARP) (triangles) in China and Japan.

Lathrobium kurosawai WATANABE 2001

M a t e r i a l e x a m i n e d : Japan: H o n s h u : 4 exs., Gunma Pref., S Usui pass, 750 m, 20.VII.1980, leg. Löbl (MHNG, cAss); 1 ex., same data, but 800 m, 24.VII.1980 (MHNG); 1 ex., same data, but 900 m, 25.VII.1980 (MHNG); 2 ç ç, Gunma Pref., 4 km SW Tsumagoi, 1050 m, 18.VII.1980, leg. Löbl (MHNG); 2 exs., Gifu Pref., 9 km E Gero, 450-500 m, 31.VII.1980, leg. Löbl (MHNG, cAss); 8 exs. [1 teneral], Toyama Pref., Kaminikawa, Arimine, 1150 m, 29.VII.1980, leg. Löbl (MHNG, cAss); 2 exs., Tochigi Pref., Nikko National Park, Chuzenji, 1350 m, 14.VII.1980, leg. Löbl (MHNG); 2 exs., Tochigi Pref., Nikko (BMNH).

C o m m e n t : The original description is based on five type specimens from "Nanairi, southern Aizu, Fukushima Pref., Honshu" (WATANABE 2001b). Based on the similarly derived male sexual characters, *L. kurosawai* is evidently closely related to *L. brachypterum* SHARP 1889. The above records reveal that the distribution of *L. kurosawai* is not particularly restricted. The altitudes range from 450 to 1150 m.

Lathrobium susumui WATANABE 1984

- M a t e r i a l e x a m i n e d : Japan: 1♂, 2♀♀, Honshu, Fukushima Pref., Bandai Kógen, 1000 m, 15.IV.2006, leg. Lackner (cAss).
- C o m m e n t : The original description is based on numerous specimens from three

localities in the south of Yamagata Prefecture (WATANABE 1984). The above specimens represent the first record from Fukushima Prefecture.

Lathrobium sanukiense WATANABE 1991

M a t e r i a l e x a m i n e d : Japan: S h i k o k u : 4 exs., Ehime Pref., Ishizuchi National Park, Omogo, 900 m, 12.VIII.1980, leg. Löbl (MHNG, cAss); 2 exs., Ehime Pref., Ishizuchi National Park, Mt. Ishizuchi, 1550 m, 12.VIII.1980, leg. Löbl (MHNG, cAss); 2 exs., Ehime Pref., Mt. Ishizuchi, 1350 m, 13.VIII.1980, leg. Löbl (MHNG, cAss); 4 exs. [partly teneral], Ehime Pref., Mt. Ishizuchi, 1000 m, 14.VIII.1980, leg. Löbl (MHNG, cAss).

C o m m e n t : The original description is based on a male holotype and 17 paratypes from "Mt. Ohtakisan, Kagawa Pref." (WATANABE 1991). Some of the above specimens are teneral. The similar modifications of the male sternites VII and VIII, as well as the similarly derived morphology of the aedeagus suggest that *L. sanukiense* is closely related to *L. shingon* WATANABE 1992 and allied species.

Lathrobium shingon WATANABE 1992

M a t e r i a l e x a m i n e d : Japan: H o n s h u : 6 exs., Nara Pref., foot of Mt. Kasuga, 20.VIII.1980, leg. Hammond (BMNH, cAss).

C o m m e n t : This species was originally described based on 17 type specimens from "Mt. Kôya-san, Wakayama Pref." (WATANABE 1992) and subsequently reported from additional localities in Nara (also from Mt. Kasuga) and Wakayama Prefectures (WATANABE 2005).

Lathrobium taichii WATANABE 2008

M a t e r i a l e x a m i n e d : <u>Japan</u>: H o n s h u : 13, Hyogo Pref., Kobe (BMNH); 13, 19, Hyogo Pref., Kobe, Mayasan, 24.IV.1930 (BMNH, cAss).

C o m m e n t : The original description is based on a male holotype and 15 paratypes from "Mt. Maya-san, Hyôgo Pref." (WATANABE 2008). Based on the synapomorphically derived morphology of the aedeagus and the shape and chaetotaxy of the male sternites VII and VIII, *L. taichii* is closely related to *L. sanukiense*, *L. shingon*, and allied species.

Lathrobium pollens SHARP 1889 (Figs 1-6)

Lathrobium pollens SHARP 1889: 254 f.

T y p e m a t e r i a l e x a m i n e d : Lectotype \Im , present designation: " \Im Lathrobium pollens. Type D.S. Miyanoshita. Japan. Lewis [hand-written on mounting label] / Syntype / Holotype / Japan. G. Lewis / Sharp Coll, 1905-313. / Lathrobium pollens Sharp, P.M. Hammond det. 1985, Syntype \Im / Lectotypus \Im *Lathrobium pollens* Sharp, desig. V. Assing 2013 / Lathrobium pollens Sharp, det. V. Assing 2013" (BMNH). <u>Paralectotypes:</u> 1 \Im : same data as holotype, but without "Holotype" label and with labels "Lathrobium pollens Sharp, V.I. Gusarov det. 1992 / Paralectotypus \Im *Lathrobium pollens* Sharp, desig. V. Assing 2013" (BMNH). *Paralectotypes:* 1 \Im : same data as holotype, but without "Holotype" label and with labels "Lathrobium pollens Sharp, V.I. Gusarov det. 1992 / Paralectotypus \Im *Lathrobium pollens* Sharp, desig. V. Assing 2013 / Lathrobium pollens Sharp, det. V. Assing 2013" (BMNH); 1 \wp : "Nikko. / Japan. G. Lewis. 1910-320. / Syntype / Lathrobium pollens Sharp, P.M. Hammond det. 1985, Syntype \wp / Lathrobium sp. \wp , det. V. Assing 2013" (BMNH).

C o m m e n t : The original description is based on "six examples" from "Nagasaki, Nikko, Miyanoshita" (SHARP 1889). In view of the usually restricted distributions of flightless *Lathrobium* species, there is little doubt that the type series is composed of at least three species. Three syntypes, two males and a female, were located in the collec-

tions of the BMNH. One of the two males from Miyanoshita is designated as the lectotype. The specific identity of the female from Nikko is uncertain; it possibly belongs to the species described in the following section.



Figs 1-6: *Lathrobium pollens* SHARP, paralectotype: (1) habitus; (2) forebody; (3) male sternite VIII; (4) male sternite VII; (5-6) aedeagus in lateral and in ventral view. Scale bars: 1.0 mm.

R e d e s c r i p t i o n : Species of large size; body length 10.5-11.5 mm; length of forebody 4.8-5.3 mm. Habitus as in Fig. 1. Coloration: forebody brown to dark-brown; abdomen dark-brown to blackish-brown; legs reddish to dark-reddish with paler tarsi; antennae brown.

Head (Fig. 2) large and transverse, 1.12-1.13 times as broad as long, somewhat dilated behind eyes, and with convex lateral margins in dorsal view; punctation relatively fine and dense, somewhat sparser in median dorsal portion and on frons; interstices with fine

and rather shallow microreticulation. Eyes weakly convex, composed of > 50 fine ommatidia, and relatively small, approximately one third as long as postocular region in dorsal view. Antenna 2.7-2.8 mm long.

Pronotum (Fig. 2) broad, approximately 1.15 times as long as broad and as broad as head, widest near anterior angles and distinctly tapering posteriad; punctation similar to that of head; interstices without microsculpture; impunctate median band rather narrow.

Elytra (Fig. 2) approximately 0.55 times as long as pronotum; punctation more or less defined, moderately dense, somewhat finer than that of pronotum. Hind wings completely reduced.

Abdomen distinctly broader than elytra; punctation fine and dense, that of tergites VII and VIII slightly less dense than that of anterior tergites; posterior margin of tergite VII without palisade fringe.

 δ : protarsomeres I-IV strongly dilated; tergite VIII with very weakly concave to nearly truncate posterior margin; sternites III-VI unmodified; sternite VII (Fig. 4) distinctly transverse, posteriorly with distinct median impression, posterior margin with distinct and broad concavity in the middle, lateral margins of this concavity furnished with dense and long dark setae; sternite VIII (Fig. 3) approximately as long as broad, posterior excision of nearly semi-circular shape, margin of this excision furnished with dense dark setae laterally, posterior margin on either side of posterior excision acutely produced; aedeagus (Figs 5-6) 2.6-2.7 mm long and symmetric; ventral process slender, weakly curved in lateral view and apically acute, ventrally with pair of long carinae; dorsal plate very long, slender, lamellate, and apically acute, basal portion distinctly longer than apical portion; internal sac without sclerotized structures.

♀: unknown.

C o m p a r a t i v e n o t e s: This species is characterized particularly by the large and broad body, as well as by the male sexual characters, above all the shape of the conspicuously long ventral process of the aedeagus.

D i s t r i b u t i o n : The type locality [35°14'N, 139°03'E] is situated in the southwest of Kanagawa Prefecture, Honshu.

Lathrobium biexcisum nov.sp. (Figs 7-12)

Type material: <u>Holotype ♂</u>: "Gumma Pref., Nikko distr., L. Maranuma [recte: Marunuma] / 1430-1500 m., 11-12.viii.80 / JAPAN: Honsu, B.M. 1980-492, P.M. Hammond / Holotypus ♂ *Lathrobium biexcisum* sp.n., det. V. Assing 2013" (BMNH).

E t y m o l o g y : The specific epithet (adjective) alludes to the posterior excisions of both the male sternite VII and the male sternite VIII.

D e s c r i p t i o n : Species of large size; body length 11.5 mm; length of forebody 5.1 mm. Habitus as in Fig. 7. Coloration: body dark-brown; legs reddish; antennae reddish.

Other external characters (Fig. 8) as in L. pollens.





Figs 7-12: *Lathrobium biexcisum* 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: 1.0 mm.

 δ : protarsomeres I-IV strongly dilated; tergite VIII with very weakly convex posterior margin; sternites III-VI unmodified; sternite VII (Fig. 9) distinctly transverse, posteriorly with pronounced median impression, this impression with moderately dense black setae; posterior margin with distinct and broad concavity in the middle, lateral margins of this concavity furnished with dense and long dark setae; sternite VIII (Fig. 10) weakly transverse, posterior excision of nearly semi-circular shape, margin of this excision and posterior median impression furnished with dense dark setae, posterior margin on either side of posterior excision acutely produced; aedeagus (Figs 11-12) 2.5 mm long and symmetric; ventral process slender, weakly curved in lateral view, subapically abruptly narrowed, and apically needle-shaped, ventrally with pair of long and pronounced carinae;

dorsal plate very long, slender, lamellate, and apically acute, basal portion longer than apical portion; internal sac without sclerotized structures.

♀: unknown.

C o m p a r a t i v e n o t e s : The similar external and the similarly derived male sexual characters suggest that *L. biexcisum* is closely allied to *L. pollens*, from which it is distinguished by the less deep posterior excision of the male sternite VII and by the different shape of the slightly smaller aedeagus. The aedeagus is most similar to that of *L. nasuense* WATANABE 1992, which was described from the environs of Nasu in the northeast of Tochigi Prefecture. From this species, *L. biexcisum* differs by the broader posterior excision of the male sternite VIII and by the different shape of the ventral process of the aedeagus in lateral view (straight basal portion shorter).

D i s t r i b u t i o n : The type locality is situated in the northeast of Gunma Prefecture, Honshu, at an altitude of 1430-1500 m.

Lathrobium loebli nov.sp. (Figs 13-16)

T y p e m a t e r i a l : <u>Holotype 3</u>: "JAPON NAGANO, J. E. Kogen N. Park, Shiga c. 1500 m, Löbl 23.7.1980 / Holotypus 3 *Lathrobium loebli* sp.n., det. V. Assing 2013" (MHNG).



Figs 13-16: *Lathrobium loebli* nov.sp.: (13) male sternite VII; (14) male sternite VIII; (15-16) aedeagus in lateral and in ventral view. Scale bars: 1.0 mm.

E t y m o l o g y : With pleasure, I dedicate this species to Ivan Löbl (Genève), distinguished specialist of Scaphidiinae, who collected the holotype.

D e s c r i p t i o n : Species of large size; body length 11.0 mm; length of forebody 5.0 mm. Coloration: dark-brown; legs reddish; antennae reddish. External characters as in L. *pollens* and L. *biexcisum*.

 δ : protarsomeres I-IV strongly dilated; tergite VIII, sternite VII, and sternite VIII as in *L. biexcisum* (Figs 13-14); aedeagus (Figs 15-16) 2.5 mm long, of similar shape as in *L. biexcisum*, but ventral process of different shape in lateral view (straight basal portion longer and subapically dilated in lateral view).

♀: unknown.

C o m p a r a t i v e n o t e s : For characters distinguishing this species from the highly similar L. *biexcisum* see the description above.

D i s t r i b u t i o n : The type locality is situated in the Jôshin'etsu-Kôgen National Park in the northeast of Nagano Prefecture, Honshu, at an altitude of approximately 1500 m.

Lathrobium kuramaicum nov.sp. (Figs 17-22)

Type material: <u>Holotype ♂</u>: "JAPAN - Honshu, Kyoto env., Kurama-yama, 27.III.2006, leg. T. Lackner / Holotypus ♂ *Lathrobium kuramaicum* sp.n., det. V. Assing 2013" (cAss).

E t y m o l o g y : The specific epithet (adjective) is derived from the name of the mountain (Kurama-yama) where the species was discovered.

D e s c r i p t i o n : Species of moderately large size; body length 7.7 mm; length of forebody 3.6 mm. Habitus as in Fig. 17. Coloration: head blackish-brown; remainder of body castaneous; legs yellowish-brown; antennae reddish.

Head (Fig. 18) rather large in relation to remainder of body, 1.05 times as broad as long, not distinctly dilated posteriad; punctation moderately coarse and moderately dense, sparser in median dorsal portion; interstices with fine and shallow microreticulation. Eyes approximately one fourth as long as postocular region in dorsal view, flat, and composed of approximately 50 ommatidia. Antenna 2.2 mm long.

Pronotum (Fig. 18) 1.15 times as long as broad and 0.98 times as broad as head; anterior three fourths of lateral margins subparallel in dorsal view; punctation similar to that of head; impunctate median band rather narrow.

Elytra (Fig. 18) 0.56 times as long as pronotum, very weakly dilated posteriad; combined posterior margins very weakly concave; punctation rather fine, shallow, and weakly defined. Hind wings completely reduced.

Abdomen 1.1 times as broad as elytra; punctation fine and dense, nearly as dense on tergite VII as on anterior tergites; interstices with fine and very shallow microsculpture, somewhat glossy; posterior margin of tergite VII without palisade fringe.

 δ : protarsomeres I-IV strongly dilated; tergite VIII with very weakly convex posterior margin; tergite IX elongated and slender, much longer than broad; sternites III-VI unmodified; sternite VII (Fig. 19) moderately transverse and with shallow postero-median impression, this impression with sparse pubescence, pubescence not distinctly modified; sternite VIII (Fig. 20) approximately as long as broad, posteriorly somewhat produced

and with posterior excision of nearly semi-circular shape; aedeagus (Figs 21-22) 1.8 mm long and somewhat asymmetric; ventral process conspicuously elongated, very slender and apically acute, weakly curved in lateral view, and slightly asymmetric in ventral view; dorsal plate with conspicuously long, distinctly asymmetric, and apically convex apical portion, and with very short curved basal portion; internal sac without sclerotized structures.

♀: unknown.



Figs 17-22: *Lathrobium kuramaicum* nov.sp.: (17) habitus; (18) forebody; (19) male sternite VII; (20) male sternite VIII; (21-22) aedeagus in lateral and in ventral view. Scale bars: 17-18: 1.0 mm; 19-22: 0.5 mm.

C o m p a r a t i v e n o t e s : The similarly derived male sexual characters suggest that *L. kuramaicum* is closely allied to *L. masumotoi* WATANABE 2011 from Nagano Prefecture (Central Honshu) and *L. kagaense* WATANABE & HOSHINA 2003 from Hakusan, a mountain in southeastern Ishikawa Prefecture (Central Honshu). The new species is distinguished from them as follows:

from *L. masumotoi* by the relatively larger head, the denser punctation of the pronotum, the posteriorly less distinctly dilated elytra, the less distinctly concave combined posterior margins of the elytra, the much narrower posterior excision of the male sternite VIII, and the morphology of the smaller aedeagus (*L. masumotoi*: length of aedeagus 2.1 mm; ventral process strongly laterally compressed, somewhat twisted, and more strongly curved in lateral view; dorsal plate of different shape).

from *L. kagaense* by the unmodified male sternite VI (*L. kagaense*: sternite VI with oblong impression in the middle), the deeper posterior excision of the male sternite VIII, and by the shape of the aedeagus (*L. kagaense*: ventral process less slender and somewhat twisted; dorsal plate of different shape).

For illustrations of the male sexual characters of *L. masumotoi* and *L. kagaense* see WATANABE (2011) and WATANABE & HOSHINA (2003), respectively.

D is t r i b u t i o n : The type locality is situated on the Kurama-yama (35°07'N, 130°35'E), a mountain in Kyoto-fu, to the north of Kyoto, in Central Honshu.

Lathrobium duplebarbatum nov.sp. (Figs 23-28)

T y p e m a t e r i a l : <u>Holotype</u> \mathcal{J} : "JAPAN - Kyushu, Fukuoka pref., Munakata city, Mt. Jouyama, 13.V.2006, leg. T. Lackner / Holotypus \mathcal{J} Lathrobium duplebarbatum sp.n., det. V. Assing 2013" (cAss).

E t y m o l o g y : The specific epithet (Latin, adjective: double-bearded) refers to the conspicuous pair of clusters of modified black setae at the posterior margin of the male sternite VIII.

D e s c r i p t i o n : Species of moderately large size; body length 8.2 mm; length of forebody 3.7 mm. Habitus as in Fig. 23. Coloration: forebody blackish except for the diffusely paler posterior margins of the elytra; abdomen blackish-brown; legs reddish, with the profemora weakly infuscate; antennae reddish.

Head (Fig. 24) distinctly transverse, 1.12 times as broad as long, not distinctly dilated posteriad; punctation coarse and moderately dense, sparser in median dorsal portion; interstices with fine and shallow microreticulation. Eyes approximately 0.4 times as long as postocular region in dorsal view, weakly convex, and composed of distinctly more than 50 ommatidia. Antenna 2.2 mm long.

Pronotum (Fig. 24) 1.15 times as long as broad and 1.05 times as broad as head; anterior three fourths of lateral margins weakly tapering posteriad in dorsal view; punctation rather sparse, as coarse as that of head; impunctate median band narrow.

Elytra (Fig. 24) 0.57 times as long as pronotum, not distinctly dilated posteriad; combined posterior margins very weakly concave; punctation rather coarse, defined, and dense, distinctly denser than that of pronotum. Hind wings completely reduced.



Figs 23-29: Lathrobium duplebarbatum nov.sp. (23-28) and L. imminutum ASSING (29): (23) habitus; (24) forebody; (25) male sternite VII; (26) male sternite VIII; (27-29) aedeagus in lateral and in ventral view. Scale bars: 23-24: 1.0 mm; 25-29: 0.5 mm.

Abdomen 1.08 times as broad as elytra; punctation fine and dense, nearly as dense on tergite VII as on anterior tergites; interstices with fine microsculpture and subdued shine; posterior margin of tergite VII without palisade fringe.

 δ : protarsomeres I-IV moderately dilated; tergite VIII with weakly convex posterior margin; sternites III-VI unmodified; sternite VII (Fig. 25) moderately transverse and with shallowly concave posterior margin, pubescence not distinctly modified; sternite VIII (Fig. 26) transverse and with distinct postero-median impression, this impression without setae in the middle, on either side of impression with conspicuous cluster of distinctly modified stout black setae at posterior margin, posterior excision broad and shallow; aedeagus (Figs 27-28) 1.0 mm long and strongly asymmetric; ventral process short, asymmetric, and excavate along middle, right apex (ventral view) curved, longer and more massive than left apex; dorsal plate with rather weakly sclerotized, distinctly asymmetric, large, long, and apically acute apical portion distinctly exceeding beyond apex of ventral process, and with short curved basal portion; internal sac without sclero-tized structures.

♀: unknown.

C o m p a r a t i v e n o t e s : Only five micropterous *Lathrobium* species had been reported from Kyushu. None of them has a pair of clusters of modified setae at the posterior margin of the male sternite VIII. Only one species, *L. nomurai* NAKANE 1955, was previously known from Fukuoka Prefecture. In addition to the unmodified pubescence of the male sternite VIII, it is distinguished from *L. duplebarbatum* by larger size (14 mm), the reddish-brown coloration of the body, the broader head (broader than pronotum), and the finer punctation of the forebody.

D i s t r i b u t i o n : The type locality is situated on Jô-yama $(33^{\circ}49'N, 130^{\circ}35'E)$, a hill little more than 5 km to the northeast of Munakata, Fukuoka-ken, in the extreme north of Kyushu.

Lathrobium horridum nov.sp. (Figs 30-35)

T y p e m a t e r i a l : <u>Holotype $\vec{\sigma}$ </u>: "JAPAN Kyushu, Fukuoka Dazaifu, Mt. Houmanzan, 15.v.06 T. Lackner / Holotypus $\vec{\sigma}$ Lathrobium horridum sp.n., det. V. Assing 2013" (cRou). Paratypes: $1\vec{\sigma}$, 1φ : same data as holotype (cAss).

E t y m o l o g y : The specific epithet (Latin, adjective: simple) refers to the weakly modified male sternites VII and VIII.

D e s c r i p t i o n : Species of moderate size; body length 6.7-8.0 mm; length of forebody 3.1-3.2 mm. Coloration: head blackish; pronotum dark-brown; elyra brown; abdomen dark-brown, with posterior margin of segment VII and posterior portion of segment VIII paler; legs reddish; antennae dark-reddish to reddish-brown.

Head (Fig. 30) transverse, 1.06-1.10 times as broad as long, weakly dilated posteriad; punctation sparse and moderately coarse; interstices with fine and shallow microreticulation, much broader than diameter of punctures. Eyes approximately half as long as post-ocular region in dorsal view, or nearly so, weakly convex, and composed of approximately 50 ommatidia. Antenna 2.2 mm long.

Pronotum (Fig. 30) 1.16-1.18 times as long as broad and approximately 1.08 times as broad as head; lateral margins subparallel in dorsal view; punctation similar to that of head; interstices without microsculpture; impunctate median band moderately broad.



Figs 30-35: *Lathrobium horridum* nov.sp.: (**30**) forebody; (**31**) male sternite VII; (**32**) male sternite VIII; (**33**) aedeagus in lateral and in ventral view. Scale bars: 30: 1.0 mm; 31-35: 0.5 mm.

Elytra (Fig. 30) approximately 0.57 times as long as pronotum, weakly dilated posteriad; punctation rather fine, defined, and moderately sparse. Hind wings completely reduced.

Abdomen approximately 1.08 times as broad as elytra; punctation fine and dense, nearly as dense on tergite VII as on anterior tergites; interstices with fine and shallow microcsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex in both sexes.

 δ : protarsomeres I-IV strongly dilated; sternites III-VI unmodified; sternite VII (Fig. 31) moderately transverse and with shallowly concave posterior margin, pubescence not distinctly modified; sternite VIII (Fig. 32) weakly oblong and weakly modified, posterior margin weakly concave in the middle, pubescence unmodified; aedeagus (Fig. 33) 1.4 mm long and symmetric; ventral process conspicuously long and slender, apical portion straight; dorsal plate with distinctly sclerotized, long, apically very acute, and nearly flat apical portion, and with short membranous basal portion; internal sac without sclerotized structures.

 φ : protarsomeres I-IV moderately dilated, distinctly less so than in male; sternite VIII (Fig. 34) slender, strongly oblong, and with strongly convex posterior margin; tergite IX (Fig. 35) long, slender, undivided in the middle, and with short postero-lateral processes; tergite X (Fig. 35) very small, 0.4 times as long as antero-median portion of tergite IX.

C o m p a r a t i v e n o t e s : *Lathrobium horridum* is readily distinguished from the other species known from Kyushu by the weakly modified male sternites VII and VIII, as well as by the morphology of the aedeagus, particularly the long and slender ventral process.

D i s t r i b u t i o n : The type locality is situated on the Houmanzan near Dazaifu in Fukuoka Prefecture, northern Kyushu.

Lathrobium sinense HERMAN 2003 (Map 2)

M a t e r i a l e x a m i n e d : Japan: 1♂, 1♀ [both brachypterous], Honshu, Tochigi Pref., Nikko National Park, Senjogahara, 14000 m, 15.VII.1980, leg. Löbl (MHNG, cAss).

C o m m e n t : This wing-dimorphic species was previously known to be widespread in China, from southern Gansu to Jiangsu (ASSING 2013a, e). The above specimens represent the first record from Japan. The currently known distribution is illustrated in Map 2. *Lathrobium sinense* is most likely of Japanese origin, as can be inferred from the observation that closely allied species have been recorded from Japan (see the two following species), but are unknown from China (ASSING 2013a).

Lathrobium nikkoense WATANABE 2001

M a t e r i a l e x a m i n e d : <u>Japan</u>; Honshu: 13, Gunma Pref., Nikko District, Konsei pass, 1800-1900 m, 13.VIII.1980, leg. Hammond (BMNH).

C o m m e n t : The original description is based on type material from three localities in "Oku-Nikkô, Gunma Pref." and additional material not included in the type series from two localities in Fukushima Prefecture (WATANABE 2001a). Based on the derived morphology of the aedeagus, particularly the shape of the internal structure (basal portion strongly inflated, apical portion spine-shaped), *L. nikkoense* is undoubtedly closely allied to *L. sinense*.



Map 2: Distribution of Lathrobium sinense HERMAN in China and Japan.



Figs 36-43: Lathrobium inflatum nov.sp.: (36) habitus; (37) forebody; (38) male sternite VII; (39) male sternite VIII; (40-41) aedeagus in lateral and in ventral view; (42) dorso-apical portion of aedeagus in lateral view; (43) apical portion of aedeagus in dorsal view. Scale bars: 36-37: 1.0 mm; 38-43: 0.5 mm.

Lathrobium inflatum nov.sp. (Figs 36-43)

T y p e m a t e r i a l : <u>Holotype ♂</u>: "Gumma Pref., Mt. Hotaka (foot), ca 1300 m, 14-15.viii.80 / JAPAN: Honshu, B.M. 1980-492, P.M. Hammond / Holotypus ♂ *Lathrobium inflatum* sp.n., det. V. Assing 2013" (BMNH).

E t y m o l o g y : The specific epithet is the past participle of the Latin verb inflare (to inflate) and alludes to the large basal portion of the internal structure of the aedeagus.

D e s c r i p t i o n : Small species; body length 6.0 mm; length of forebody 2.5 mm. Habitus as in Fig. 36. Coloration: body reddish-brown with the abdominal segments V-VII somewhat darker; legs pale yellowish-brown; antennae reddish.

Head (Fig. 37) approximately as long as broad; punctation moderately coarse and rather sparse, interstices distinctly broader than diameter of punctures, with shallow micro-reticulation. Eyes small, weakly convex, and composed of approximately 25 ommatidia, approximately one fourth as long as postocular region in dorsal view. Antenna 1.5 mm long.

Pronotum (Fig. 37) 1.25 mm long and approximately as broad as head; punctation similar to that of head, but distinctly denser; impunctate midline moderately broad.

Elytra (Fig. 37) moderately short, 0.65 times as long as pronotum; punctation fine and shallow. Hind wings completely reduced.

Abdomen slender, but distinctly broader than elytra; punctation very fine and very dense; interstices with distinct microreticulation; posterior margin of tergite VII without palisade fringe.

 δ : protarsomeres I-IV strongly dilated; tergite VIII with weakly convex posterior margin; sternites III-VI unmodified; sternite VII (Fig. 38) strongly transverse and with shallow postero-median impression, posterior margin weakly concave, pubescence unmodified; sternite VIII (Fig. 39) weakly oblong, pubescence unmodified, posterior excision Vshaped and moderately deep; aedeagus (Figs 40-43) 1.0 mm long; ventral process symmetric, slender and subapically weakly curved in lateral view, and apically acute; dorsal plate with long, stout, strongly sclerotized, and apically acute apical portion and with long, slender, lamellate, and weakly sclerotized basal portion; internal sac with two sclerotized structures, one of them moderately long, slender, apically acute, and basally bifid and the other basally very large, apically extending into a long, slender, strongly curved, asymmetric spine.

Q: unknown.

C o m p a r a t i v e n o t e s : Based on the similar external characters, the shape and chaetotaxy of the male sternite VII and VIII, and particularly on the similarly derived morphology of the aedeagus (internal sac with a basally strongly inflated sclerotized structure), *L. inflatum* undoubtedly belongs to the *L. sinense* group. In external characters, it is practically indistinguishable from the similar *L. nikkoense*, but differs by the completely different shapes of the internal structures of the aedeagus.

D i s t r i b u t i o n : The type locality is situated at the foot of Hotaka-san $(36^{\circ}48'N, 139^{\circ}08'E]$ in the north of Gunma Prefecture, Honshu, at an altitude of approximately 1300 m.

Species excluded from *Lathrobium*

Pseudobium kobense (SHARP 1874), nov.comb. (Figs 44-47, Map 1)

Lathrobium kobense SHARP 1874: 57 f.

Pseudobium hunanicum ASSING 2012A: 416, nov.syn.

T y p e m a t e r i a l e x a m i n e d : <u>Lectotype & present designation</u>: "Kobé / Kobe. / Japan. G. Lewis, 1910-320 / Lathrobium kobense mihi D. S. / Aedeagus at rest is turned to 90° in abdomen / Pseudobium kobense (Sharp), V.I. Gusarov det. 1992 / Lectotypus & *Lathrobium kobense* Sharp, desig. V. Assing 2013 / Pseudobium kobense (Sharp), det. V. Assing 2013" (BMNH). <u>Paralectotype q:</u> "Type / Japan. G. Lewis / Sharp Coll, 1905-313 / Lathrobium kobense, Type D. S. / Japan / Pseudobium kobense (Sharp), V.I. Gusarov det. 1992" (BMNH).

C o m m e n t : The original description is based on "two specimens" from "Kobé" (SHARP 1874). Both of them, a male and a female, were located in the collections of the BMNH. The male is designated as the lectotype. An examination of the type material revealed that *Lathrobium kobense* belongs to *Pseudobium* MULSANT & REY 1878 and that this species is conspecific with *P. hunanicum* ASSING 2012, which was recently described from China. Hence the synonymy proposed above. The external and sexual characters of the lectotype are illustrated in Figs 44-47.

Pseudobium kobense is now known from one locality in Japan and three localities in China (ASSING 2012a, 2013d); the distribution is illustrated in Map 1.



Figs 44-47: *Pseudobium kobense* (SHARP), lectotype: (44) habitus; (45) forebody; (46-47) aedeagus in lateral and in ventral view. Scale bars: 44-45: 1.0 mm; 46-47: 0.2 mm.



Figs 48-53: Lobrathium scabripenne (SHARP), lectotype: (48) habitus; (49) forebody; (50) male sternite VII; (51) male sternite VIII; (52-53) aedeagus in lateral and in ventral view. Scale bars: 48-49: 1.0 mm; 50-51: 0.5 mm; 52-53: 0.2 mm.

Lobrathium scabripenne (SHARP 1874), nov.comb. (Figs 48-53, Map 1)

Lathrobium scabripenne SHARP 1874: 58.

Lathrobium cylindricum BERNHAUER 1938: 37 f., nov.syn.

T y p e m a t e r i a l : *L. scabripenne*: Lectotype 3, present designation: "Japan / Lathrobium scabripenne, type D. S. / Sharp Coll, 1905-313 / Type / Lobrathium scabripenne (Sharp), V.I. Gusarov det. 1990 / Lectotypus 3 *Lathrobium scabripenne* Sharp, desig. V. Assing 2013 / Lobrathium scabripenne (Sharp), det. V. Assing 2013" (BMNH). *L. cylindricum*: see ASSING (2013d).

C o m m e n t : The original description of *L. scabripenne* is based on an unspecified number of syntypes, among them at least one male, which were collected "flying in the dusk at Nagasaki" (SHARP 1874). One male syntype was located in the collections of the BMNH. It is designated as the lectotype and conspecific with the two syntypes of

Lathrobium cylindricum BERNHAUER 1938 from "Japan: Unzen bei Shimabara" examined earlier (ASSING 2013d). The syntype of *L. cylindricum* from China was looked for, but not found in the collections of the NMNHP by the curator in charge (HÁJEK, e-mail 17 June, 2013).

R e d e s c r i p t i o n : Small species; body length 5.0-5.5 mm; length of forebody 2.7-2.8 mm. Habitus as in Fig. 48. Coloration: head blackish-brown to black; pronotum bright reddish to dark-brown; elytra brown to dark-brown, with the posterior two thirds of the suture and the posterior margins somewhat paler; legs and antennae reddish.

Head (Fig. 49) distinctly oblong, approximately 1.15 times as long as broad, with subparallel lateral margins and moderately marked posterior angles in dorsal view; punctation coarse and dense; interstices without microsculpture, distinctly narrower than diameter of punctures. Eyes rather large and distinctly convex, approximately 0.7 times as long as postocular region in dorsal view. Antenna approximately 1.6 mm long; antennomeres IV and V indistinctly oblong; VI-X as broad as long or weakly transverse.

Pronotum (Fig. 49) approximately 1.35 times as long as broad and nearly as broad as head; punctation dense, much finer than that of head; impunctate midline rather narrow.

Elytra (Fig. 49) approximately 1.05 times as long as pronotum; punctation very dense, weakly defined, and not distinctly seriate. Hind wings present. Protarsomeres I-IV without sexual dimorphism, moderately dilated in both sexes.

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

 δ : sternite VII (Fig. 50) moderately transverse, with unmodified pubescence, and with truncate posterior margin; sternite VIII (Fig. 51) weakly oblong, with unmodified pubescence, and with very small posterior excision; aedeagus (Figs 52-53) 0.6 mm long and symmetric; ventral process laterally compressed, subapically bent, and apically acute; dorsal plate with distinctly sclerotized, relatively long, and apically acute apical portion, and with weakly sclerotized short and thin basal portion; internal sac with several moderately sclerotized long structures.

C o m p a r a t i v e n o t e s : *Lobrathium scabripenne* is characterized by its small size, dense and coarse punctation of the head, long and densely punctate elytra, and particularly by the male sexual characters (shapes of the male sternite VIII, morphology of the aedeagus).

D i s t r i b u t i o n : This species is the second representative of the genus known from both Japan and China (Map 1), a distribution previously recorded only for the widespread *L. hongkongense* (BERNHAUER 1931) (ASSING 2012b). It is currently known from two localities in Kyushu (Japan) and one in Jiangsu (China).

"Lathrobium" monilicorne SHARP 1889

Lathrobium monilicorne SHARP 1889: 259.

T y p e m a t e r i a l : Lectotype δ , present designation: "Lathrobium monilicorne. Type D. S., Fuji. Japan. Lewis, an gen. nov. [handwritten on mounting label] / Sharp Coll, 1905-313 / Aedeagus at rest turned to 90° in abdomen / Lathrobium monilicorne Sharp, V.I. Gusarov det. 1992 / Lectotypus δ *Lathrobium monilicorne* Sharp, desig. V. Assing 2013 / Elytrobium monilicorne (Sharp), det. V. Assing 2013" (BMNH). <u>Paralectotype δ :</u> "Lathrobium monilicorne. D. S., Fuji. [handwritten on mounting label] / Japan. G. Lewis. 1910-320. / Sharp Coll, 1905-313 / Lathrobium monilicorne Sharp, V.I. Gusarov det. 1992 / Paralectotypus δ *Lathrobium monilicorne* Sharp, desig. V. Assing 2013 / Elytrobium monilicorne (Sharp), det. V. Assing 2013" (BMNH).

C o m m e n t : The original description is based on "two females; taken in the plain of Fujisan" (SHARP 1889). Both syntypes were located in the collections of the BMNH and are in fact males. One of them is designated as the lectotype. Preliminary studies suggest that this species does not belong to *Lathrobium*, but to a probably undescribed genus of Lathrobiina, of which I have seen several other species from the East Palaearctic region. They will be dealt with in a separate study (ASSING in press).

Checklist of the Lathrobium species of Japan

The species are listed alphabetically. New country and province records are underlined. <u>Footnotes:</u> ¹⁾ macropterous species; ²⁾ wing-dimorphic species; ³⁾ male unknown; ⁴⁾ lectotype designation and figures in WATANABE (2010).

species	distribution
adachii WATANABE 2010	C-Honshu: Kanagawa, Shizuoka, Tokyo &
	Saitama Pref.
aioiense WATANABE 2002	W-Honshu: Hyogo Pref.: Minoo-yama
aonoi Watanabe 2011	W-Honshu: Okayama Pref.
arakawai WATANABE 1992	C-Honshu: Niigata Pref.: Tanigawa-dake,
	Tairappyô-yama
awajishimanum WATANABE 2001	Hyogo Pref .: Awaji-shima: Kabuto-yama
awanum WATANABE 1991	Shikoku: Tokushima Pref.: Tsurugi-san
biexcisum nov.sp.	Honshu: Gunma Pref.: Nikkô
brachypterum SHARP 1889 ⁴⁾	C-Honshu: Kanagawa, Shizuoka &
	Yanmanshi Pref.
daisenense WATANABE 1987	W-Honshu: Tottori Pref.: Daisen
daisensanum WATANABE 1998	N-Shikoku: Kagawa Pref.: Daisen-zan
<i>densum</i> BERNHAUER 1936 ³⁾	W-Honshu: Okayama
dignum Sharp 1874 ¹⁾	Japan: Hokkaido, Honshu; China; Russian
	Far East; North Korea; South Korea
dozenense WATANABE & SHIMADA 2005	W-Honshu: Shimane Pref.: Oki-shotô
duplebarbatum nov.sp.	Kyushu: Fukuoka Pref: Jô-yama
fujimotoi WATANABE 2001	E-Kyushu: Oita Pref.: Kuro-dake
gomadanzanum WATANABE 2005	C-Honshu: Kii Peninsula: Wakayama Pref.:
	Gomadan-zan
hakusanum WATANABE & HOSHINA 2003	C-Honshu: Ishikawa Pref.: Haku-san
harimanum WATANABE 1986	W-Honshu: Hyogo Pref.: Tanjô-san
hayashii Hayashi 1999	C-Honshu: Kii Peninsula: Osaka Pref.:
	Kongo-zan
hikosanense WATANABE 1998	N-Kyushu: Fukuoka Pref.: Hiko-san
hirakuranum WATANABE 2005	C-Honshu: Kii Peninsula: Mie Pref.:
	Hirakura
hisamatsui WATANABE & YOSHIDA 2009	Shikoku: Ehime Pref.: Ishizuchi-san
horridum nov.sp.	N-Kyushu: Fukuoka Pref.
<i>imminutum</i> Assing 2013 ¹⁾	Japan: Honshu; China
inflatum nov.sp.	Honshu: Gunma Pref.: Hotaka-san

species	distribution
isense WATANABE 2006	C-Honshu: Kii Peninsula: Mie Pref.
ishidai Hayashi 1996	W-Honshu: Hyogo Pref.: Sasayama-shi,
	Amaishi-yama
<i>ishiharai ishiharai</i> HAYASHI 1994 ¹⁾	Honshu: Osaka-fu
itsukushimanum WATANABE 2011	W-Honshu: Hiroshima Pref.: Miyajima,
	Itsukushima
iwamiense WATANABE 1991	W-Honshu: Shimane Pref.: Iwami-ginzan
<i>izumoense</i> WATANABE 2010	W-Honshu: Shimane Pref.: Ôhara
<i>japonicum japonicum</i> Bernhauer 1907 ¹⁾	Rishiri-tô (W Hokkaido)
kagaense WATANABE & HOSHINA 2003	C-Honshu: Ishikawa Pref.: Haku-san
kamezawai WATANABE 2005	NW-Shikoku: Ehime Pref.: Saragamine
kanayamaense WATANABE 2001	C-Honshu:Yamanashi Pref.: Kanayamadaira
kanmuriense WATANABE 2002	W-Honshu: Hiroshima Pref .: Saeki-gun,
	Yoshiwa-mura, Kanmuri-yama
kasagatanum WATANABE 2002	W-Honshu: Hyogo Pref.: Taka-gun,
	Yachiyo-chô, Kasagata-yama
kasaharai WATANABE 2002	C-Honshu: Bôsô Peninsula: Chiba Pref.:
	Kameyama-ko
kasumiense WATANABE 2002	W-Honshu: Hyogo Pref.: Obara
katsumiae WATANABE & YOSHIDA 2007	E-Shikoku: Tokushima Pref.
kinokuniense WATANABE 2006	C-Honshu: Kii Peninsula: Wakayama Pref.
kishuense WATANABE 1991	W-Honshu: Wakayama Pref.: Asarano-tani
konpira WATANABE 1991	Shikoku: Kagawa Pref.: Zôzu-san
koyasanum WATANABE 2006	C-Honshu: Kii Peninsula: Wakayama Pref.:
	Kôya-san
kuramaicum nov.sp.	C-Honshu: Kyoto-fu: Kurama-yama
kurosawai WATANABE 2001	NE-Honshu: Fukushima, Gunma, Gifu,
	Toyama & Tochigi Pref.
kusamai WATANABE 1999	C-Honshu: Shizuoka Pref.: Sobatsubu-yama
loebli nov.sp.	Honshu: Nagano Pref.: Jôshin'etsu-Kôgen N.
	Р.
masaoi Watanabe 1999	C-Honshu: Kii Peninsula: Nara & Mie Pref.
masatoi WATANABE 2010	W-Honshu: Shimane Pref.: Ôhara
masumotoi WATANABE 2011	C-Honshu: Nagano Pref.
matobai WATANABE 2005	C-Honshu: Kii Peninsula: Wakayama Pref.,
	Kainan-shi
mayasanense WATANABE 1992	W-Honshu: Hyogo Pref.: Maya-san
monticola SHARP 1889	Kyushu: Nagasaki Pref.
morii Watanabe 2002	W-Honshu: Osaka Pref.: Minoo
moritai WATANABE 1998	W-Honshu: Yamaguchi Pref.: Jakuchi-san
nabetaniense WATANABE 1997	C-Honshu: Ishikawa Pref.: Tatsunokuchi-
	machi, Nabetani
nagashimanum WATANABE 2005	C-Honshu: Kii Peninsula: Mie Pref.:
	Kiinagashima-chô
nankiense WATANABE 2006	C-Honshu: Kii Peninsula: Wakayama & Mie
	Pref.

species	distribution
nanseiense WATANABE 2005	C-Honshu: Kii Peninsula: Mie Pref.: Nansei-
	chô, Tsurugi-toge
narutoense WATANABE 2010	C-Honshu: Tochigi Pref.: Nasushiobara-shi:
	Santo-goya
nasuense WATANABE 1992	C-Honshu: Tochigi Pref .: Oku-Nasu: Santo-
	goya
nidoagense WATANABE 2001	C-Honshu: Gunma Pref.: Nidoage
nikkoense WATANABE 2001	C-Honshu: Gunma Pref.: Nikko
nishikawai WATANABE 1986	C-Honshu: Shizuoka Pref.: Koguromi
nomurai Nakane 1955	Kyushu: Oita Pref.: Saeki
notoense WATANABE 1997	C-Honshu: Ishikawa Pref.: Horyu-zan
ohdaiense WATANABE 1998	C-Honshu: Mie & Nara Pref.
ohkurai Hayashi 1996	W-Honshu: Hyogo Pref.: Mt. Amaishi
ohtakisanum WATANABE 2010	E-Shikoku: Tokushima Pref.: Kurehata,
	Miwa C., Waki T., Otaki-san
ohtohense WATANABE 2006	C-Honshu: Kii Peninsula: Wakayama Pref.
okamotoi WATANABE 2011	W-Honshu: Hiroshima Pref.: Yasuura, Noro-
	san
okiense Watanabe & Shimada 2004	Oki Islands (W Honshu): Shimane Pref.:
	Nishi-no-shima, Dogo
omogoense WATANABE 1991	Shikoku: Ehime Pref.: Ishizuchi-san,
1	Omogokei
onodai WATANABE 1996	SW-Kyushu: Kagoshima Pref.: Shimokoshi-
WATANADE 2005	ki-jima C-Honshu: Mie Pref.: Owase-shi
owaseanum WATANABE 2005	
pollens Sharp 1889	Honshu: Kanagawa Pref.: Hakone-shi, Miyanoshita
sanukiense WATANABE 1991	Shikoku: Kagawa & Ehime Pref.
sasajii WATANABE 2001	C-Honshu: Fukui & Ishikawa Pref.
satoi WATANABE 2001	C-Honshu: Aichi Pref.: Mennoki-tôge
shinanense WATANABE 2005	C-Honshu: Nagano Pref.
shingon WATANABE 1992	C-Honshu: Kii Peninsula: Wakayama &
Shingon WATANADE 1992	Nara Pref.
shiritakanum WATANABE 1997	C-Honshu: Ishikawa Pref.: Nomi-gun,
	Tsurugi-machi, Shiritaka-yama
shizuokaense WATANABE 1986	C-Honshu: Shizuoka Pref.: Sakano,
	Kiyozasa-tÔge
shotaroi WATANABE 2005	C-Honshu: Kii Peninsula: Wakayama Pref.,
	Hikigawa-chô, Shôgun-gawa, Tsutsumi-dani
sinense Herman 2003 ²⁾	Japan: Honshu; China
sugiei WATANABE 1997	C-Honshu: Ishikawa Pref.: Tatsunokuchi-
	machi, Nabetani
susamiense WATANABE 2005	C-Honshu: Kii Peninsula: Wakayama Pref.:
	Nishimuro-gun, Susami-chô
susumui WATANABE 1984	NE-Honshu: Yamagata & Fukushima Pref.
suzukii WATANABE 2011	W-Honshu: Okayama Pref.

species	distribution
tadaorum WATANABE 2008	W-Honshu: Hyogo Pref.: Maya-san
tahirai WATANABE 2001	C-Honshu: Shizuoka Pref.: Mitsumine-san
taichii WATANABE 2008	W-Honshu: Hyogo Pref.
taishakuense WATANABE 2011	W-Honshu: Hiroshima Pref.: Tôjô-chô, Taishakukyô
tamotsui WATANABE 1994	Shikoku: Ehime Pref.: Ishizuchi-san, Omogokei
tanakai WATANABE 1998	C-Honshu: Kii Peninsula: Wakayama & Nara Pref.
tokushimanum WATANABE & YOSHIDA 2009	Shikoku: Tokushima Pref.: Shibakoya-yama, Takamaru-yama
tosanum WATANABE 1987	Shikoku: Kochi Pref.: Hongawa-mura, Okuminagawa-yama
toyodai WATANABE 2005	C-Honshu: Kii Peninsula: Mie Pref.: Miyama-chô, Fudô-dani
tsurugisanum WATANABE 1991	Shikoku: Tokushima Pref.: Tsurugi-san, Kotsu-zan
uenoi WATANABE 1980	Honshu: Kyoto Pref.: Mizuho-chô, Shizushi
uozumii Watanabe 2002	S-Shikoku: Kochi Pref.: Kami-gun, Monobe
wasamatanum WATANABE 2006	C-Honshu: Kii Peninsula: Nara Pref.: Kamikita-yama, Wasamata-yama
yokozekii WATANABE 2005	C-Honshu: Kii Peninsula: Mie Pref.
yosiianum WATANABE 1999	S-Shikoku: Ehime Pref.: Takatsuki-yama

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Zusammenfassung

Sechs Arten der Gattung Lathrobium GRAVENHORST 1802 werden aus Japan beschrieben und abgebildet: L. biexcisum nov.sp. (Honshu), L. loebli nov.sp. (Honshu), L. kuramaicum nov.sp. (Honshu), L. duplebarbatum nov.sp. (Kyushu), L. horridum nov.sp. (Kyushu) und L. inflatum nov.sp. (Honshu). Drei bisher Lathrobium zugeordnete Arten werden aus der Gattung entfernt und zwei Namen werden synonymisiert: Pseudobium kobense (SHARP 1874), nov.comb., = Pseudobium hunanicum ASSING 2012, nov.syn; Lobrathium scabripenne (SHARP 1874), nov.comb., = Lathrobium cylindricum BERNHAUER 1938, nov.syn.; "Lathrobium" monilicorne (SHARP 1889). Für Lathrobium pollens SHARP 1889, L. kobense SHARP 1874, L. scabripenne SHARP 1874 sowie L. monilicorne SHARP 1889 werden Lectotypen designiert. Weitere Nachweise von neun Arten werden gemeldet. Zwei bisher ausschließlich aus China bekannte Arten werden erstmals aus Japan nachgewiesen. Lathrobium ist damit derzeit in Japan mit 105 Arten vertreten, 100 davon flugunfähig und micropter, eine flügeldimorph und vier macropter. Ein Katalog der Lathrobium-Arten Japans wird erstellt.

References

- ASSING V. (2012a): On the *Pseudobium* species of the Palaearctic region. III. A new species from China, a new synonymy, a new combination, and additional records (Insecta: Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge **44** (1): 409-419.
- ASSING V. (2012b): A revision of East Palaearctic *Lobrathium* (Coleoptera: Staphylinidae: Paederinae). Bonn Zoological Bulletin **61** (1): 49-128.
- ASSING V. (2013a): On the *Lathrobium* fauna of China I. The species of the Qinling Shan, the Daba Shan, and adjacent mountain ranges (Coleoptera: Staphylinidae: Paederinae). Bonn Zoological Bulletin **62** (1): 1-29.
- ASSING V. (2013b): On the *Lathrobium* fauna of China III. New species and additional records from various provinces (Coleoptera: Staphylinidae: Paederinae). Contributions to Entomology, Beiträge zur Entomologie **63** (1): 25-52.
- ASSING V. (2013c): Six new species and additional records of *Lathrobium* from the Palaearctic region (Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge **45** (1): 247-266.
- ASSING V. (2013d): A revision of *Pseudobium* IV. Three new species, a new synonymy, and additional records (Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge **45** (1): 229-245.
- ASSING V. (2013e): New species and records of *Lathrobium* from China and Nepal (Coleoptera: Staphylinidae: Paederinae). Linzer biologische Beiträge **45** (2): 1643-1655.
- ASSING V. (in press): Two new genera of Lathrobiina from the East Palaearctic region (Coleoptera: Staphylinidae: Paederinae). Contributions to Entomology, Beiträge zur Entomologie **63** (2) (2013).
- BERNHAUER M. (1938): Zur Staphylinidenfauna von China u. Japan. Entomologisches Nachrichtenblatt (Troppau) 12: 17-39.
- SHARP D. S. (1874): The Staphylinidae of Japan. The Transactions of the Entomological Society of London 1874: 1-103.
- SHARP D. S. (1889): The Staphylinidae of Japan. The Annals and Magazine of Natural History (6) 3: 28-44, 108-121, 249-267, 319-334, 406-419, 463-476.
- SMETANA A. (2004): Subfamily Paederinae FLEMING, 1821. In: LÖBL I. & A. SMETANA (eds), Catalogue of Palaearctic Coleoptera. Volume 2. Hydrophiloidea – Histeroidea – Staphylinoidea. — Apollo Books, Stenstrup: 579-624.
- WATANABE Y. (1984): The brachypterous staphylinid beetles from the Tôhoku District, Northeast Japan, with descriptions of four new species. — Memoirs of the National Science Museum, Tokyo 17: 131-144.
- WATANABE Y. (1991): New species of the group of *Lathrobium pollens* (Coleoptera, Staphylinidae) from Shikoku, Japan. Journal of the Speleological Society of Japan 16: 29-37.
- WATANABE Y. (1992): New species of the group of *Lathrobium pollens* (Coleoptera, Staphylinidae) from Western Honshu, Japan. Elytra, Tokyo **20** (2): 189-196.
- WATANABE Y. (2001a): Four new species of apterous *Lathrobium* (Coleoptera, Staphylinidae) from Central Honshu, Japan. — Elytra, Tokyo 29 (2): 465-475.
- WATANABE Y. (2001b): A new species of the group of Lathrobium brachypterum (Coleoptera, Staphylinidae) from southern Aizu in northeastern Honshu, Japan. — Elytra, Tokyo 29 (2): 358-363.
- WATANABE Y. (2005): Apterous *Lathrobium* (Coleoptera, Staphylinidae) from the Kii Peninsula in Japan. 1. Group of *Lathrobium shingon*. Elytra, Tokyo **33** (1): 313-325.

- WATANABE Y. (2008): Two new species of *Lathrobium* (Coleoptera: Staphylinidae) from Mt. Maya-san of Hyôgo Prefecture in Western Honshu, Japan. — Taichius, Special Publication of the Japan Coleopterological Society, Osaka 2: 183-190.
- WATANABE Y. (2010): *Lathrobium brachypterum* and its new relative (Coleoptera: Staphylinidae) from Central Honshu, Japan. Elytra, Tokyo **38** (2): 257-265.
- WATANABE Y. (2011): Two new species of the brachypterous *Lathrobium* (Coleoptera, Staphylinidae) from the Northern Japanese Alps in Central Honshu, Japan. Special Publication of the Japanese Society of Scarabaeoidology, Tokyo 1: 103-108.
- WATANABE Y. & H. HOSHINA (2003): On some apterous *Lathrobium* (Coleoptera, Staphylinidae) from Mt. Hakusan in Central Honshu, Japan. The Memoirs of the Research and Education Center for Regional Environment, University of Fukui **10**: 7-14.

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