

Two New Species of the Group of *Lathrobium pollens/brachypterum* (Coleoptera, Staphylinidae) from Zhejiang Province, East China

Yasuaki WATANABE

Laboratory of Entomology, Tokyo University of Agriculture,
Setagaya, Tokyo, 156–8502 Japan

Abstract Two new species of the group of *Lathrobium pollens/brachypterum* are described under the names *L.* (s. str.) *cooteri* and *L.* (s. str.) *rougemonti*. The former was obtained from leaf litter on the two mountains, Mt. Lin-long Shan and Mt. Xi Tian-mu Shan, and the latter was found from leaf litter on the Tian-mu Shan Mts., both in East China.

Up to the present, fourteen species of the group of *Lathrobium pollens/brachypterum* have been known from Continental China. Of these, two species were reported by LI and CHEN (1990) from Jilin Province, three by WATANABE and LUO (1992) and WATANABE (1999) from Zhejiang Province, and nine by WATANABE and XIAO (1994, 1996, 1997) from Yunnan Province.

Through the courtesy of Mr. G. DE ROUGEMONT, London, I had an opportunity to examine two apterous *Lathrobium* found in litter layers on two different mountains in Zhejiang Province, East China. One of them, obtained on Mt. Lin-long Shan and Xi Tian-mu Shan, seems to belong to the group of *Lathrobium pollens*, and the other obtained on Mt. Xi Tian-mu Shan to the group of *L. brachypterum*, respectively, in view of similar body size and coloration.

After a careful examination, it has become clear that these species are new to science for reason of the peculiarity of secondary sexual characters of abdominal sternites and configuration of the male genital organ, which are different from those of the known members of the respective groups. They will be described in the present paper.

Before going further, I would like to express my hearty thanks to Dr. Shun-Ichi UENO, Visiting Professor at Tokyo University of Agriculture, for his kind advice on the present study. Deep gratitude is also due to Mr. Guillaume DE ROUGEMONT, London, for his kindness in providing me with the specimens used in this study.

***Lathrobium* (s. str.) *cooteri* Y. WATANABE, sp. nov.**

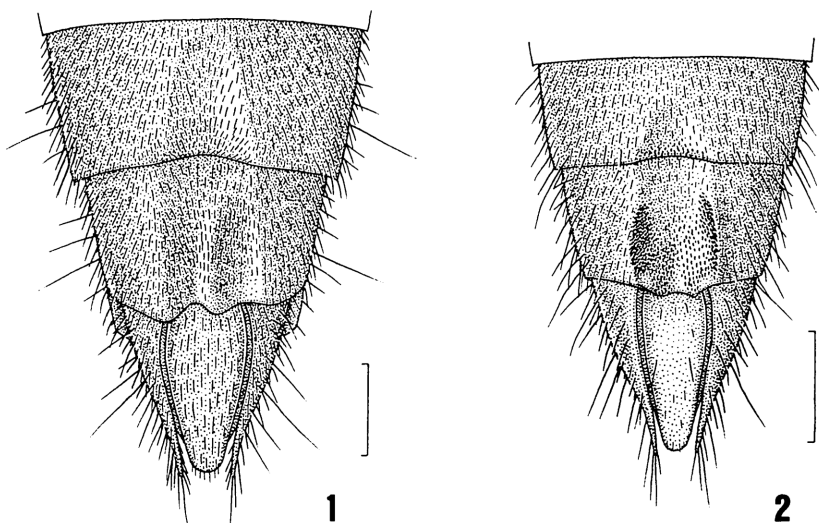
(Figs. 1, 3–5)

Body length: 9.8–10.5 mm (from front margin of head to anal end); 4.1–4.3 mm (from front margin of head to elytral apices).

Body elongate, parallel-sided and somewhat depressed above. Colour brownish black and moderately shining, with labrum, mandibles, antennae except for yellowish apical half of apical segment and elytra reddish brown, palpi, legs and apical segment of abdomen brownish yellow.

Male. Head suborbicular and gently convex medially, slightly transverse (width/length=1.08), widest at posterior third and more strongly narrowed anteriorly than posteriorly, with lateral sides gently arcuate, frontal area between antennal tubercles transversely flattened and glabrous along frontal margin, bearing a remarkable setiferous puncture inside each antennal tubercle; surface sparingly, coarsely and setiferously punctate, except for almost impunctate vertexal part, the punctures becoming more or less finer and somewhat closer in latero-posterior areas and covered with microscopic coriaceous ground sculpture only visible under high magnification; eyes small and flat, the longitudinal diameter less than one-third as long as each postocular part. Antennae filiform and slender, extending to near the middle of pronotum and not thickened towards the apical segment, two proximal segments polished, 3rd subopaque and the remainings opaque, 1st segment robust and dilated apically, more than 2.5 times as long as broad, 2nd constricted at the base, about 1.8 times as long as broad, but a half as long as and distinctly narrower than 1st, 3rd somewhat dilated apically, twice as long as broad, a little longer (3rd/2nd=1.11) than though as broad as 2nd, 4th to 10th almost equal to one another in both length and width, each somewhat dilated apically, distinctly longer than broad (length/width=1.60) but somewhat shorter (each of 4th to 10th/3rd=0.80) than though as broad as 3rd, 11th fusiform, twice as long as broad, apparently longer (11th/10th=1.25) than though as broad as 10th, subacuminate at the tip.

Pronotum convex and long-oval, distinctly longer than broad (length/width=1.33), more than 1.5 times as long as and somewhat broader (pronotum/head=1.33) than head, widest at anterior fourth and distinctly narrowed posteriorly; lateral sides feebly arcuate in dorsal view, anterior margin gently rounded except for median part which is subtruncate, posterior margin nearly straight, anterior angles obtuse and invisible from dorsal side, posterior angles rounded; surface more closely and more coarsely punctate than on head except for a narrow smooth longitudinal space along the median line. Scutellum subtriangular, with only a few minute setiferous punctures and very fine ground sculpture on the surface. Elytra subtrapezoidal and somewhat depressed above, slightly dilated posteriorly, a little transverse (width/length=1.15), remarkably shorter (elytra/pronotum=0.65) than though as broad as pronotum; lateral sides nearly straight, posterior margin emarginate and forming an obscure re-entrant angle at the middle; posterior angles broadly rounded; surface more closely with coarser setiferous punctures than those on pronotum. Legs moderately long; profemur remarkably thickened, though strongly constricted near the apex and excavated in apical half on the inner face, so that the anterior part of the excavation forms a subtriangular blunt tooth; protibia somewhat dilated apically, hollowed in basal half on the inner face and provided with five or so transverse rows of fine comb-like yellowish setae within the hollow; meso- and metatibiae simple; 1st to 4th protarsal segments strongly



Figs. 1–2. Last three abdominal sternites in male of *Lathrobium* (s. str.) spp.; *L.* (s. str.) *cooteri* sp. nov. (1), and *L.* (s. str.) *rougemonti* sp. nov. (2). Scale: 0.5 mm.

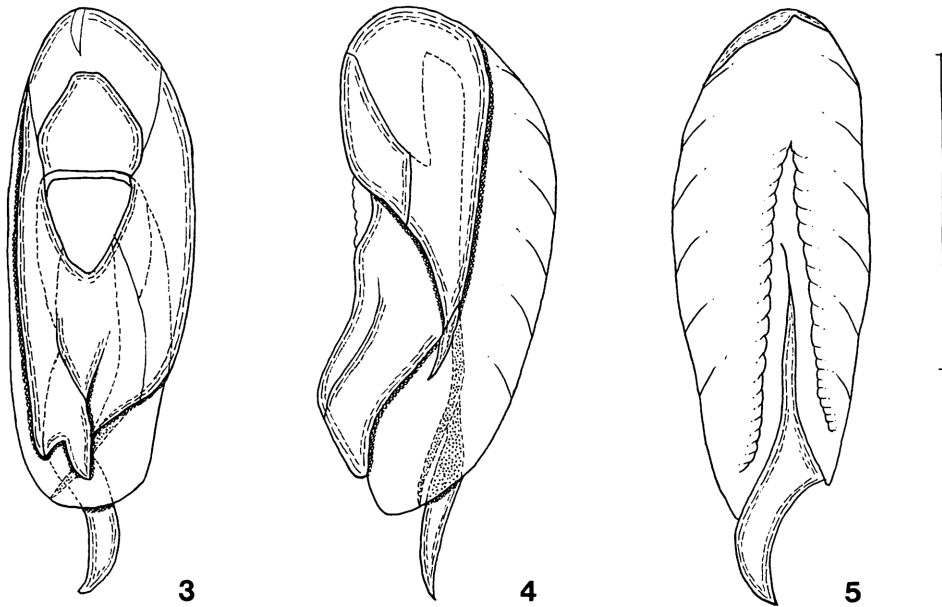
dilated; meso- and metatarsi thin.

Abdomen elongate, widest at 5th segment and more strongly narrowed posteriad than anterior, 3rd to 6th tergites each transversely and shallowly depressed along the base, moderately closely superficially punctured and covered with fine brownish pubescence; 7th and 8th each more or less sparsely and more roughly punctured than on the preceding tergites; 8th sternites asymmetrically excised at median part of posterior margin and oblongly, shallowly depressed before the excision, surface of the depression weakly longitudinally elevated at the middle before posterior margin; 7th sternite broadly and arcuately emarginate at the middle of posterior margin and long-elliptically depressed at the middle in front of the emargination.

Genital organ elliptical and well sclerotized except for ventral side of median lobe. Median lobe relatively broad, widest near basal third and more strongly narrowed apicad than basad, with a well sclerotized plate at the middle in apical half of ventral side, the ventral plate curved to the left side in apical half and forming a sickle-shape as seen from ventral side. Fused paramere shorter than median lobe and asymmetrical in apical half, deeply excised at the right side near the tip, surface longitudinally carinate at the middle in apical half, the tip of the carina being angulate as seen from dorsal side.

Female. Similar in general appearance to male, though differing from it in the 8th abdominal sternite which is somewhat produced backwards at the middle of posterior margin and rounded at the apex.

Type series. Holotype: ♂, China, Zhejiang Prov., Lin'an County, Lin-long Shan, 22-V-1996, J. COOTER leg. Allotype: ♀, China, Zhejiang Prov., Lin'an County, Xi



Figs. 3–5. Male genital organ of *Lathrobium* (s. str.) *cooteri* sp. nov.; dorsal view (3), lateral view (4), and ventral view (5). Scale: 1.0 mm.

Tian-mu Shan N. R., 16–V–1996, J. COOTER leg. Paratypes: 3 ♂♂, same data as for the holotype. The type series is deposited in G. DE ROUGEMONT collection with the exception of the holotype which will eventually be deposited in the Natural History Museum, London, and one paratype (♂) preserved in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. China (Zhejiang Prov.).

Remarks. The present new species may belong to the group of *L. pollens* because of having the transverse head and elytra, and conspicuous secondary sexual characters of the abdominal sternites in the male. It can be readily distinguished from the other members of the group by the different secondary sexual character of the abdominal sternites in the male and different configuration of the male genital organ.

Bionomics. The type series was obtained from leaf litter accumulated on the forest floor on Mt. Lin-long Shan only 250 m above sea-level, except for the allotype which was obtained on Mt. Xi Tian-mu Shan N. R.

Etymology. The present new species is named after M. J. COOTER, who collected the type series.

***Lathrobium* (s. str.) *rougemonti* Y. WATANABE, sp. nov.**

(Figs. 2, 6–8)

Body length: 5.6–6.5 mm (from front margin of head to anal end); 3.1–3.2 mm

(from front margin of head to elytral apices).

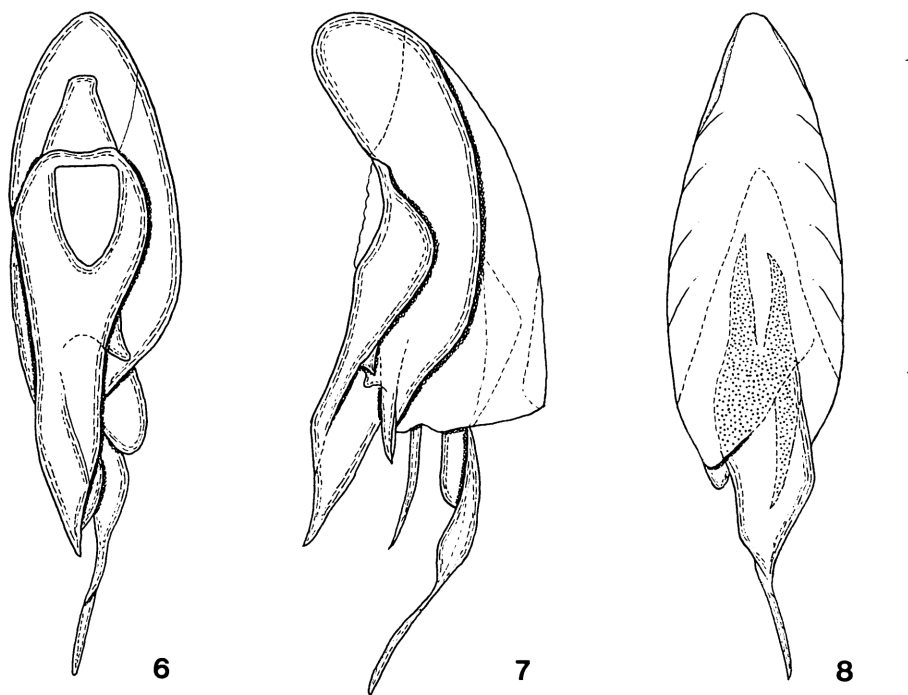
Similar in facies to the preceding species, but can readily be distinguished from it by the much smaller body and different configuration of secondary sexual characters and genital organ in the male.

Body elongate, parallel-sided and subdepressed above, apterous. Colour brownish red and moderately shining, with antennae and apical segment of abdomen brownish yellow, palpi dark yellow.

Male. Head suborbicular and gently elevated medially, slightly transverse (width/length=1.06), widest at posterior fourth and slightly more strongly narrowed anteriorly than posteriorly, lateral sides arcuate, frontal area transversely flattened and impunctate along frontal margin, with a large setiferous puncture inside each antennal tubercle; surface sparingly scattered with coarse setiferous punctures which are much sparser in the vertexal part and more or less closer and somewhat finer near posterior angles than in other areas, and covered with extremely microscopic coriaceous ground sculpture all over; eyes small and flat, the longitudinal diameter less than one-third as long as each postocular part. Antennae relatively short, not reaching the middle of pronotum and not thickened apically, two proximal segments polished, 3rd subopaque and the remainings opaque, 1st segment robust and dilated apically, more than twice as long as broad, 2nd constricted at the base, about 1.5 times as long as broad, considerably shorter (2nd/1st=0.46) and distinctly narrower (2nd/1st=0.79) than 1st, 3rd to 10th equal in width to one another, 3rd somewhat dilated apically, 1.5 times as long as broad, slightly longer (3rd/2nd=1.09) and somewhat broader (3rd/2nd=1.14) than 2nd, 4th to 10th equal in both length and width to one another, each a little longer than broad (length/width=1.25) but somewhat shorter than 3rd (each of 4th to 10th/3rd=0.83), 11th fusiform, more than twice as long as broad and 1.5 times as long as but slightly narrower than 10th (11th/10th=0.88), acuminate at the tip.

Pronotum convex and oblong though somewhat narrowed posteriorly, apparently longer than broad (length/width=1.22), distinctly longer (pronotum/head=1.29) than though as broad as head, widest just behind anterior angles and gradually narrowed posteriorly; lateral sides almost straight except near anterior and posterior angles, anterior margin gently arcuate, posterior margin subtruncate, anterior angles obtuse and not visible from above, posterior ones rounded; surface sparingly though more closely and more coarsely punctured than on head except for a narrow smooth longitudinal space along the median line. Scutellum subtriangular, surface almost impunctate though bearing similar ground sculpture to that on head. Elytra subdepressed above and nearly square, slightly dilated apically, somewhat transverse (width/length=1.19), distinctly shorter (elytra/pronotum=0.73) but slightly narrower (elytra/pronotum=0.95) than pronotum; lateral sides feebly arcuate, posterior margin broadly emarginate at the middle; posterior angles rounded; surface more closely and much more roughly punctured than in pronotum. Legs similar in structure to that of the preceding species.

Abdomen elongate, gradually dilated to 6th segment, and then narrowed towards the anal end; 3rd to 8th tergites each sparingly covered with aciculate punctures and



Figs. 6–8. Male genital organ of *Lathrobium* (s. str.) *rougemonti* sp. nov.; dorsal view (6), lateral view (7), and ventral view (8). Scale: 0.5 mm.

fine brownish pubescence, 9th tergite much more sparsely punctured and pubescent than in the preceding tergites; 8th sternite shallowly and asymmetrically emarginate at the middle of posterior margin, and shallowly and broadly depressed in front of the emargination, surface of the depression provided densely with short rigid blackish setae on latero-posterior parts, and strongly and longitudinally raised at the outer sides of the setose part; 7th sternite shallowly and arcuately emarginate at the middle of posterior margin and subtriangularly depressed before the emargination, surface of the depression with similar setae to those on 8th sternite at the middle of posterior part.

Genital organ spindle-shaped and well sclerotized except for ventral side of median lobe. Median lobe widest near the middle and narrowed both basad and apicad, with a ventral sclerite abruptly narrowed in apical fourth. Fused paramere nearly symmetrical, considerably shorter than median lobe, somewhat constricted near the middle and dilated basad, though narrowed towards the pointed apex.

Female. Resembles male in facies, though differing from it in the 7th and 8th abdominal sternites which are not modified.

Type series. Holotype: ♂, allotype: ♀, China: Zhejiang Prov., Lin'an County, Xi Tian-mu Shan N. R., 18-V-1996, J. COOTER leg. Paratypes, 2 ♂♂, 1 ♀, same data as for the holotype; 2 ♂♂, 1 ♀, same locality and collector as the holotype, 16-V-1996; 1 ♂,

1 ♀, China: Zhejiang Prov., Tian-mu Shan, 29-IV-1993, G. DE ROUGEMONT leg. The type series is deposited in G. DE ROUGEMONT collection with the exception of the holotype which will eventually be deposited in the Natural History Museum, London, and four paratypes (3 ♂♂, 1 ♀) preserved in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. China (Zhejiang Prov.).

Remarks. In general appearance and body size, this new species somewhat resembles *L. (s. str.) tamurai* Y. WATANABE et LUO (1992) from Wu-yan-ling in Zhejiang Prov., but differs from it in the following points: head suborbicular and gently convex medially, pronotum as broad as head and apparently narrowed posteriorly, 8th abdominal sternite provided with short rigid blackish setae on the surface of medio-posterior depression, and different configuration of male genital organ.

Bionomics. The type series was found in leaf litter accumulated at two different spots, 700 m and 1,000 m in altitude, on Mt. Xi Tian-mu Shan.

Etymology. The specific epithet of the present new species is given after Mr. G. DE ROUGEMONT, who collected a part of the type series.

要 約

渡辺泰明：中国浙江省から採集されたコバネナガハネカクシ／ヒメコバネナガハネカクシ種群の2新種。—— 中国からはこれまで、コバネナガハネカクシ／ヒメコバネナガハネカクシ種群に含まれる14種が知られているが、それらのうちの3種が浙江省から報告されている。私は最近、ロンドン在住のGuillaume DE ROUGEMONT氏のご厚意によって、浙江省の西天目山および礼竜山から採集されたこの種群に含まれる2種を検討することができたが、これらの2種はいずれも新種と判明したので、下記のように命名して記載した。

1. *Lathrobium (s. str.) cooteri* Y. WATANABE

礼竜山の標高250mの地域に堆積した落葉層および西天目山で採集された本種は、体長、概形および雄の腹部に顕著な第二次性徴が認められることから、コバネナガハネカクシ種群に含まれる。しかしながら、雄腹部の第二次性徴および交尾器の側葉は特異な形状を呈し、この種群に含まれる他の種から容易に区別される。

2. *Lathrobium (s. str.) rougemonti* Y. WATANABE

天目山地の標高700mおよび1,000m付近に堆積した落葉層から得られた本種は、前種よりはるかに小型で、ヒメコバネナガハネカクシ種群に含まれる。色彩および概形は、浙江省の烏岩嶺から採集された個体に基づいて記載された*L. (s. str.) tamurai*に類似しているが、頭部はより円形であること、前胸背板は頭部と同じ幅で、後方に向かって明らかに狭まること、雄の腹部の第二次性徴および交尾器の形状が明らかに異なることで、この種群の他の種から区別される。

References

- LI, J., & P. CHEN, 1990. The fauna [sic] distribution of Staphylinidae in northeastern China. *J. Northeast*

- norm. Univ., Changchun*, (Nat. Sci.), (1): 13–20. (In Chinese, with English title.)
- SHARP, D., 1889. The Staphylinidae of Japan. *Ann. Mag. nat. Hist.*, (6), **3**: 249–267 [part 6].
- WATANABE, Y., 1999. Two new subterranean staphylinids (Coleoptera) from East China. *Elytra, Tokyo*, **27**: 249–257.
- & Z. LUO, 1992. New species of the genus *Lathrobium* (Coleoptera, Staphylinidae) from the Wuyanling nature protective area in Zhejiang Province, East China. *Ibid.*, **20**: 47–56.
- & N. XIAO, 1994. New apterous *Lathrobium* (Coleoptera, Staphylinidae) from the Diancang Shan Mountains in Yunnan Province, Southwest China. *Ibid.*, **22**: 255–262.
- & ——— 1996. A new species of the *Lathrobium pollens* group (Coleoptera, Staphylinidae) from Mt. Yulongxue Shan in Yunnan Province, Southwest China. *Ibid.*, **24**: 61–66.
- & ——— 1997. New species of apterous *Lathrobium* (Coleoptera, Staphylinidae) from Yunnan Province, Southwest China. *Ibid.*, **25**: 493–508.

Elytra, Tokyo, **27** (2): 580, November 13, 1999

New Records of Staphylinid Beetles (Coleoptera) from Take-shima Island of the Ôsumi Islands in Kagoshima Prefecture, Japan

Yasuaki WATANABE

Laboratory of Entomology, Tokyo University of Agriculture,
Setagaya, Tokyo, 156–8502 Japan

and

Shigeru ONODA

Higashikoorimoto-chô 11–16, Kagoshima-shi, 890–0084 Japan

So far as known to the authors, no staphylinid beetles have hitherto been recorded from Take-shima Island of the Ôsumi Islands in Kagoshima Prefecture, Japan.

Two species of staphylinid beetles were collected by one of the authors, S. ONODA, from Take-shima Island on September 7, 1994, as recorded below.

1. *Anotylus lewisius* (SHARP), 1 ♂, 2 ♀♀.
2. *Cilea silphoides* (LINNÉ), 1 ♂, 1 ♂.