

New Apterous *Lathrobium* (Coleoptera, Staphylinidae)
from the Diancang Shan Mountains in Yunnan
Province, Southwest China

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Abstract Two new species of apterous *Lathrobium* are described under the names *L. yunnanum* and *L. daliense*. The former belongs to the group of *L. pollens* and the latter to the group of *L. monticola*, both having been found from under dead leaves and in the litter zones of the Diancang Shan Mountains in western Yunnan, Southwest China.

Four species of apterous *Lathrobium* have hitherto been known from China. One of them, *L. pollens*, has been reported from Jilin Province by LI and CHEN (1990, p. 16). And then, two more species were reported from the same province by LI and others (1990, p. 66), one being recorded under the name of *L. pollens* SHARP and the other treated as a species belonging to the group of *L. nomurai*. On the other hand, two species were described from Zhejiang Province by WATANABE and LUO (1992, pp. 48–55) under the names of *L. imadatei* and *L. tamurai*. After that, LI (1993, p. 30) referred to the previous paper published in 1990.

At the beginning of September, 1993, the present authors had an opportunity of making investigation on the staphylinid fauna of the Dali area at the western part of Yunnan Province, Southwest China, as the members of a second expedition of the Sino-Japanese cooperative study on the soil fauna of tropical forests in Southwest China. During the investigation, two species of apterous *Lathrobium* were found from under dead leaves and in the litter zones on the Diancang Shan Mountains stretching at the western side of Dali Shi. One of the two species belongs to the group of *L. pollens* for the reason of having similar facies and body size, while the other to the group of *L. monticola* because of its small body size and inconspicuous secondary

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sexual character of the abdomen in the male.

After a careful examination, it has become apparent that these species are new to science because of disagreement with the known members of the respective groups in the secondary sexual character of the abdomen and configuration of the male genitalia. They will be described in the present paper. The holo- and allotypes of the two new species to be described are deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica, and the paratypes are distributed to the collection of the Kunming Institute of Zoology, the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, and the Laboratory of Entomology, Tokyo University of Agriculture.

Before going further, the authors wish to express their hearty thanks to Professor YIN Wen-ying of the Shanghai Institute of Entomology, Academia Sinica, and Professor Gantaro IMADATÉ of Tokyo Medical and Dental University, for their kind help through the Sino-Japanese cooperative study. Deep gratitude is also due to Dr. Shun-ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his advice on the present study, and Professor Hiroshi TAMURA of Ibaraki University, Mito, and the members of the Sino-Japanese Cooperative Study for their kind assistance in the field.

Lathrobium yunnanum sp. nov.

(Figs. 1–5)

Body length: 7.3–8.5 mm (from front margin of head to anal end); 3.9–4.4 mm (from front margin of head to elytral apices).

Body elongate, subparallel-sided and somewhat depressed above. Colour reddish black to reddish brown and moderately shining, with mouth parts, antennae, legs and sometimes apical and sutural areas of elytra yellowish red.

Male. Head subquadrate, gently elevated medially and transverse (width/length=1.09), widest at posterior three-fourths and gently narrowed anteriorly, with lateral sides slightly arcuate; frontal area between antennal tubercles transversely flattened and glabrous, bearing a conspicuous setiferous puncture just inside each antennal tubercle; surface covered with extremely fine ground sculpture all over; disc weakly elevated, sparsely with rather coarse setiferous punctures; latero-posterior parts also covered extensively with setiferous punctures, which are somewhat finer and closer than those on the disc; eyes small and flat, the longitudinal diameter less than one-fourth as long as the postocular part. Antennae relatively slender, extending to the middle of pronotum and not thickened apically; two proximal segments polished, the remainings more or less opaque; 1st segment robust, strongly dilated apically, about 2.5 times as long as broad, 2nd constricted at the base, a little longer than broad (length/width=1.30), but much shorter (2nd/1st=0.43) and somewhat narrower (2nd/1st=0.83) than 1st, 3rd to the apicalmost segment equal in width to one another, 3rd nearly twice as long as broad, a little longer (3rd/2nd=1.38) but slightly narrower (3rd/2nd=0.96) than 2nd, 4th nearly 1.5 times as long as broad but somewhat shorter than 3rd (4th/

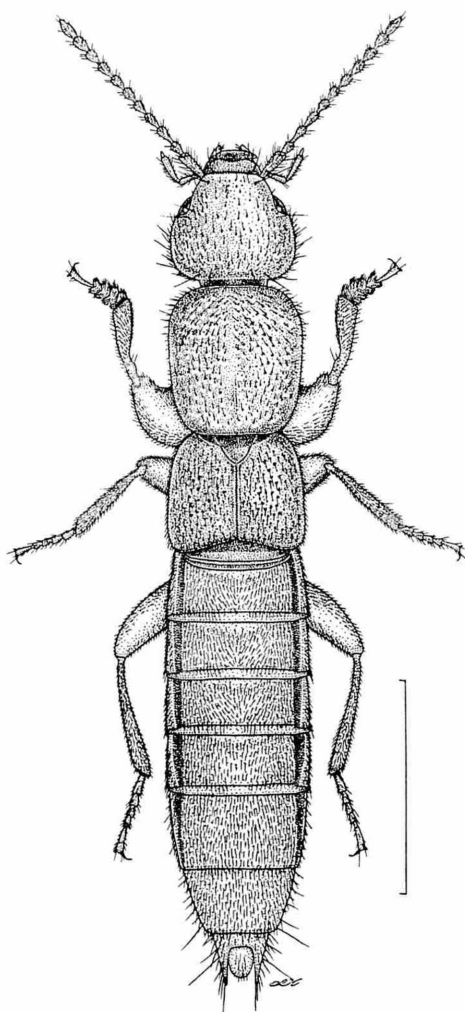


Fig. 1. *Lathrobium yannanum* sp. nov., ♂.
Scale: 3.0 mm.

3rd=0.78), 5th to 7th equal in length to one another, each a little longer than broad (length/width=1.35) but slightly shorter than 4th (each of 5th to 7th/4th=0.93), 8th to 10th equal in length to one another, each somewhat longer than broad (length/width 1.25) but hardly shorter than 7th (each of 8th to 10th/7th=0.92), apicalmost long oval, remarkably longer than broad (length/width=1.71) and more than twice as long as 10th, subacuminate at the tip.

Pronotum moderately convex and distinctly longer than broad (length/width=1.15), evidently longer (pronotum/head=1.43) and somewhat broader (pronotum/head=1.14) than head, widest just behind anterior angles and gently narrowed posteriorly; lateral sides nearly straight as seen from above except near anterior and posterior angles, anterior margin gently rounded, posterior margin nearly straight, ante-

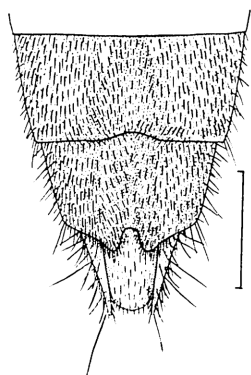
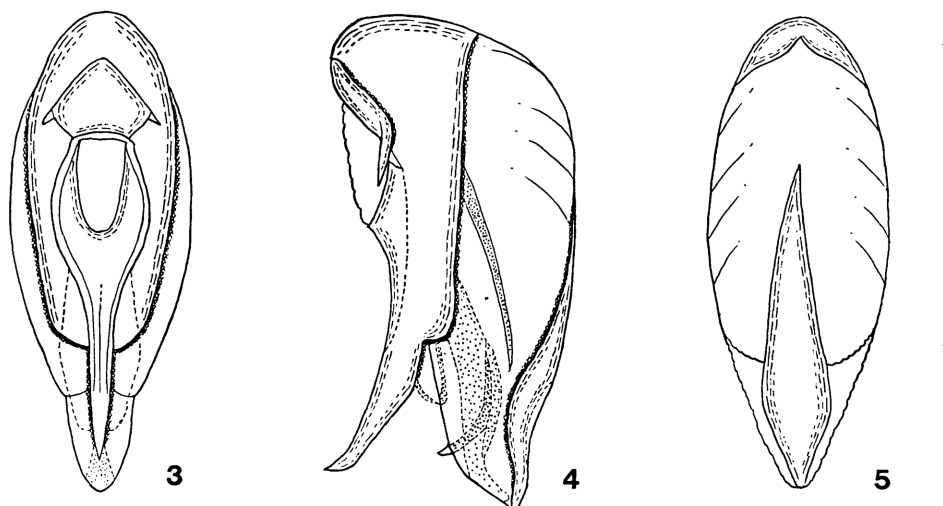


Fig. 2. Last three abdominal sternites in male of *Lathrobium yannanum* sp. nov. Scale: 1.0 mm.

rior angles obtuse and not visible from above, posterior ones narrowly rounded; surface more closely and more coarsely punctate than that of head, though the narrow space along median line is impunctate. Scutellum subtriangular, sparsely scattered with a few superficial setiferous punctures on the surface. Elytra subtrapezoidal, somewhat dilated posteriad and a little transverse (width/length=1.18), much shorter (elytra/pronotum=0.74) but slightly broader (elytra/pronotum=1.02) than pronotum; lateral sides feebly arcuate, posterior margin emarginate at the middle, posterior angles obliquely truncated; surface rather densely covered with coarse setiferous punctures. Hind wings each degenerated to a minute lobe. Legs relatively short; 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 dilated apicad, hollowed in basal half on the inner face and armed with five transverse rows of comb-like yellowish setae in basal half within the hollow; meso- and metatibiae normal; 1st to 4th protarsal segments strongly widened, meso- and metatarsi thin.

Abdomen elongate, slightly widened towards the 4th visible segment, though abruptly narrowed from 6th visible segment to anal end; basal four visible tergites each transversely depressed along the base; surface of each tergite closely covered with aciculate punctures and fine brownish pubescence; preapical sternite provided with a U-shaped excision at the middle of posterior margin and longitudinally depressed at the middle before the excision; 5th visible sternite shallowly and broadly emarginate at the middle of posterior margin and subtriangularly depressed in front of the emargination.

Genitalia elliptical and almost symmetrical, well sclerotized except for dorsal side of median lobe. Median lobe relatively broad, gradually narrowed towards the apex which is broadly rounded. Parameres fused with each other into a narrow lobe, apparently longer than median lobe, abruptly constricted near the middle and forming a lanceolate part in apical half as seen from ventral side, ventral surface depressed at the middle in apical half and provided with a fine longitudinal carina along median line



Figs. 3-5. Male genitalia of *Lathrobium yunnanum* sp. nov.; ventral view (3), lateral view (4), and dorsal view (5). Scale: 1.0 mm.

within the depression, though the carina becomes obscure before and behind. Dorsal side of median lobe provided with a well sclerotized plate, which is the broadest at apical fourth and more strongly narrowed basad than apicad.

Female. Similar to male in general appearance, but the 1st to 4th protarsal segments are less dilated, last visible abdominal sternite produced posteriad at the median part of posterior margin and gently rounded at the apex.

Type series. Holotype: ♂, allotype: ♀, Laohu Shan (2,200 m alt.), Dali Shi, Yunnan Prov., China, 3-IX-1993, Y. WATANABE leg. Paratypes: 5 ♂♂, 6 ♀♀, same data as for the holotype.

Distribution. Southwest China.

This new species is similar in general form of male genitalia to *L. pollens* from Japan, but differs from the latter in configuration of fused paramere.

Lathrobium daliense sp. nov.

(Figs. 6-9)

Body length: 4.7-5.4 mm (from front margin of head to anal end); 2.5-2.8 mm (from front margin of head to elytral apices).

The present new species belongs to the group of *L. monticola* SHARP in body size and inconspicuous secondary sexual character of the abdomen in the male, but differs from the other members of the same group in configuration of male genitalia.

Body elongate, parallel-sided and subdepressed above. Colour reddish black and moderately shining, with mouth parts yellowish brown, antennae and legs reddish

brown, and sutural and apical parts of elytra obscurely rufescent.

Head quadrate, gently elevated in middle and slightly transverse (width/length=1.03) or almost as long as broad, widest at posterior fourth and more distinctly narrowed anteriorly than posteriorly; lateral sides feebly arcuate; frontal area transversely flattened and glabrous inside anterior margin, provided with a remarkable setiferous puncture inside each antennal tubercle; surface covered with microscopic coriaceous ground sculpture all over and sparsely scattered with distinct setiferous punctures, which become closer and smaller on latero-posterior areas than on medio-frontal area; eyes small and flat, the longitudinal diameter nearly one-third as long as the postocular part. Antennae relatively slender, hardly reaching the middle of pronotum, with two proximal segments polished and the remainings subopaque, 1st segment robust, dilated apically and twice as long as broad, 2nd a little longer than broad (length/width=1.25) but a half as long as and somewhat narrower (2nd/1st=0.80) than 1st, 3rd evidently longer than broad (length/width=1.32), as long as but slightly narrower than 2nd (3rd/2nd=0.95), 4th to 10th nearly equal in both length and width to one another, each slightly longer than broad (length/width=1.10), 7th to 10th more or less moniliform, apically most fusiform, more than twice as long as broad, much longer than 10th (apicalmost/10th=1.78), and subacuminate at the tip.

Pronotum moderately convex and evidently longer than broad (length/width=1.16), somewhat broader than head (pronotum/head=1.19), widest at anterior fourth and gently narrowed posteriorly; lateral sides straight or slightly arcuate as seen from above, anterior margin feebly emarginate at the middle, posterior margin nearly straight, anterior angles rounded and not visible from above, posterior ones obtuse; surface sparsely, coarsely and setiferously punctured except for a narrow smooth longitudinal area along the median line. Scutellum subtriangular, scattered with a few minute superficial setiferous punctures on the surface. Elytra somewhat dilated posteriorly and a little transverse (width/length=1.19), as broad as but apparently shorter (pronotum/elytra=0.73) than pronotum, lateral sides nearly straight, posterior margin distinctly emarginate at the middle, posterior angles broadly rounded; surface rather densely and roughly punctured, and covered with fine brownish pubescence. Hind wings each degenerated to a minute lobe. Legs relatively stout, profemur conspicuously thickened, but strongly constricted near the apex and excavated in apical half on the inner face, so that the anterior part of the excavation forms a blunt subtriangular tooth; protibia widened towards the apex, hollowed in basal half on the inner face and provided with five or so comb-like transverse rows of fine brownish setae within the hollow; meso- and metatibiae not modified; 1st to 4th protarsal segments strongly widened.

Abdomen elongate, slightly and gradually widened from basal segment to 4th visible segment and abruptly narrowed from 6th visible segment to anal end; surface of each tergite rather densely covered with fine aciculate punctures and fine brownish pubescence; preapical sternite truncated or slightly emarginate at the middle of posterior margin and more or less longitudinally depressed at the middle; 5th visible

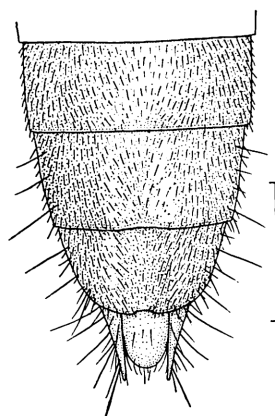
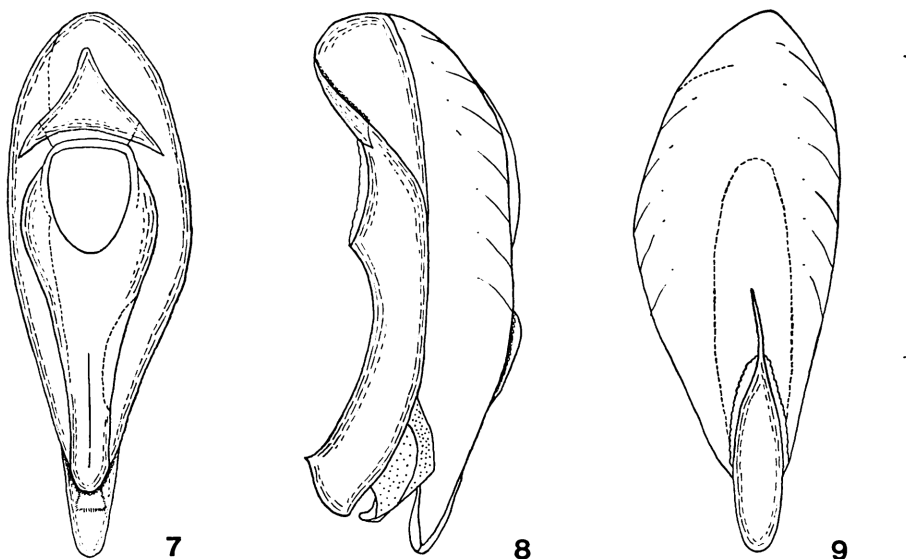


Fig. 6. Last four abdominal sternites in male of *Lathrobium daliense* sp. nov. Scale: 1.0 mm.



Figs. 7-9. Male genitalia of *Lathrobium daliense* sp. nov.; ventral view (7), lateral view (8) and dorsal view (9). Scale: 0.5 mm.

sternite only slightly emarginate at the middle of posterior margin and indistinctly depressed along the median line.

Genitalia sclerotized with the exception of dorsal side of median lobe, elliptical, slightly asymmetrical. Median lobe broader than, though almost as long as, fused paramere. Fused paramere constricted near the middle and dilated basad though gently narrowed towards the apex, which is rounded as seen from ventral side, ventral surface provided with a longitudinal carina along the median line in apical half, abbreviated both basad and apicad, the carina forming a small projection at the apex in profile. Dorsal side of median lobe provided with a sclerotized plate in apical

area, the plate being long elliptical in apical three-fourths, though aciculate and very slender in basal fourth.

Female. In facies similar to male, but the 1st to 4th protarsal segments are less widened, last visible abdominal sternite produced posteriad at the median part of posterior margin and gently rounded at the apex.

Type series. Holotype: ♂, allotype: ♀, Zhonghe Feng (2,620 m alt.), Diancang Shan Mountains, Dali Shi, Yunnan Prov., China, Y. WATANABE leg. Paratypes: 5 ♂♂, 4 ♀♀, same data as for the holotype.

Distribution. Southwest China.

要 約

渡辺泰明・蕭宁年：中国云南省点苍山山地から採集された後翅の退化した *Lathrobium* 属の 2 新種。—— 1993 年 8 月下旬から 1 カ月間にわたって実施された、中日共同学術調査の第二次云南省における土壤動物相の調査によって、後翅の退化した *Lathrobium* 属に含まれる 2 種が採集された。それらを詳細に検討した結果、新種と判断されたので、下記のとおり命名記載した。

1. *Lathrobium yunnanum* Y. WATANABE et XIAO N.

本種は体長および外部形態から *L. pollens* 群に含まれる種だと判断された。しかしながら、雄の腹部腹板に認められる第二次性徴や交尾器の形状によって、既知のいずれの種からも容易に区別することができる。

2. *Lathrobium daliense* Y. WATANABE et XIAO N.

本種は小型で、雄の腹部腹節に表われる第二次性徴が顕著でないことから *L. monticola* 群に含まれる種だと判断された。しかしながら、雄交尾器の形状が、この群に含まれる既知種のものとは明らかに異なり、それらから容易に区別することができる。

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