

New Species of the Group of *Lathrobium pollens* (Coleoptera, Staphylinidae) from Western Honshu, Japan

Yasuaki WATANABE

Laboratory of Entomology, Tokyo University of Agriculture,
Tokyo, 156 Japan

Abstract Two new species belonging to the group of *Lathrobium pollens* are described under the names of *L. mayasanense* and *L. shingon*. They were found in the litter zones of two different localities. One of them was obtained on Mt. Mayasan in Hyôgo Prefecture, while the other was collected on Mt. Kôya-san in Wakayama Prefecture.

The group of *Lathrobium pollens* differs from the other members of the genus *Lathrobium* in vestigial eyes and degenerated hind wings like the group of *L. uenoi*. Nine species have hitherto been reported from Japan, including Iturup Island of the Kuriles.

Examining the group of *L. pollens* in my collection, I have found two interesting species found in the litter zones of two different localities. One of them was obtained on Mt. Mayasan in Hyôgo Prefecture and the other on Mt. Kôya-san in Wakayama Prefecture, both in western Honshu. After a careful examination, it became clear that they did not agree with the known species of the group in configuration of the secondary sexual character of abdomen and genital organ in the male. They seem to be new to science, and will be described in the present paper. The type series of the two new species to be described are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Before going further, I wish to express my hearty thanks to Dr. Shun-Ichi UENO of the National Science Museum (Nat. Hist.), Tokyo, for his kind support of the present study.

Lathrobium mayasanense Y. WATANABE, sp. nov.

[Japanese name: Mayasan-kobane-naga-hanekakushi]

(Figs. 1–5)

Body length: 9.0–11.4 mm (from front margin of head to anal end); 5.1–5.4 mm (from front margin of head to elytral apices).

Body elongate, parallel-sided and somewhat depressed above. Colour reddish black and moderately shining, pronotum and elytra somewhat opalescent, with mouth parts, antennae and abdomen reddish brown, legs yellowish brown.

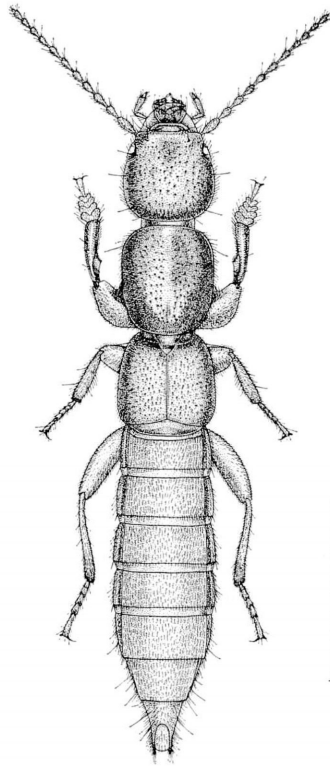


Fig. 1. *Lathrobium mayasanense* Y. WATANABE, sp. nov., ♂, from Mt. Mayasan in Hyôgo Prefecture. Scale: 3.0 mm.

Male. Head subtrapezoidal, gently convex and transverse (width/length=1.10), distinctly narrowed anteriorly, with lateral sides feebly arcuate; surface sparingly covered with rather coarse setiferous punctures which become closer on latero-posterior areas than on medio-frontal area, ground sculpture obscure; eyes small and flat, the longitudinal diameter of each eye about one-fourth as long as postocular part. Antennae relatively slender, extending to the middle of pronotum and not thickened apically, with two proximal segments polished, the remainings becoming gradually opaque towards the apicalmost segment, 1st robust and dilated apically, nearly three times as long as broad, 2nd to 7th equal in width to one another, 2nd constricted at the base, longer than broad (length/width=1.60) but much shorter (2nd/1st=0.40) and narrower (2nd/1st=0.71) than 1st, 3rd elongate and somewhat dilated apically, twice as long as broad and distinctly longer than 2nd (3rd/2nd=1.25), 4th dilated apically like 3rd, more than 1.5 times as long as broad but clearly shorter than 3rd (4th/3rd=0.80), 5th to 7th equal in both length and width to one another, each about 1.4 times as long as broad but slightly shorter than 4th (5th/4th=0.88), 7th to 10th more or less moniliform, 8th longer than broad (length/width=1.44), slightly shorter (8th/7th=0.93)

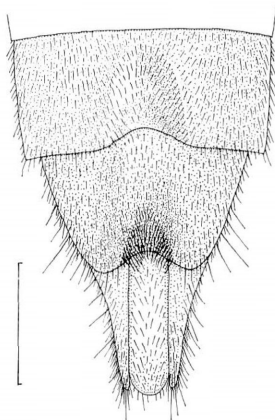
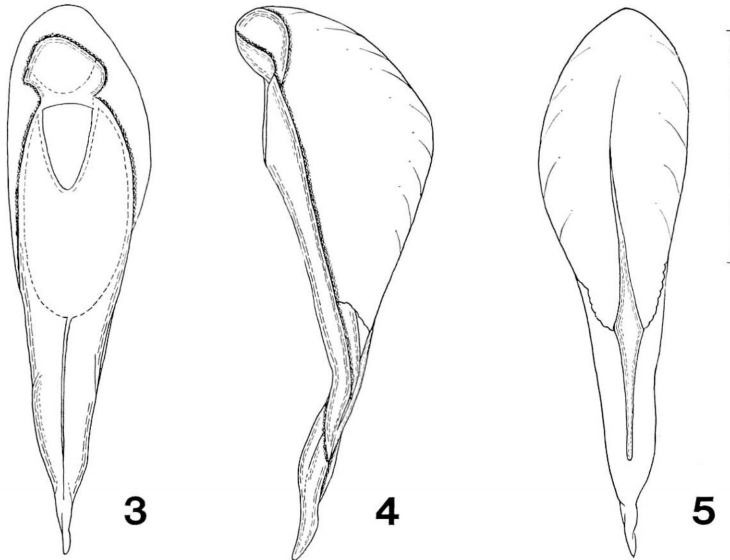


Fig. 2. Last three abdominal sternites in male of *Lathrobium mayasanense* Y. WATANABE, sp. nov. Scale: 1.0 mm.

and narrower ($8\text{th}/7\text{th}=0.90$) than 7th, 9th and 10th equal in both length and width to each other, each longer than broad ($\text{length}/\text{width}=1.33$), apicalmost fusiform, more than twice as long as broad and about 1.5 times as long as 10th, subacuminate towards the tip.

Pronotum moderately convex medially and distinctly longer than broad ($\text{length}/\text{width}=1.21$), as broad as or slightly narrower than head ($\text{pronotum}/\text{head}=0.96$), widest just behind anterior angles and apparently narrowed posteriad; lateral sides feebly arcuate as seen from dorsal side, anterior margin gently rounded, posterior margin nearly truncate, anterior angles rounded but not visible from above, posterior ones obtuse; surface rather sparingly covered with much coarser punctures than those on head except for a narrow smooth longitudinal area along the median line. Scutellum subtriangular, bearing a few superficial setiferous punctures on the surface. Elytra somewhat dilated posteriad and subdepressed above, slightly transverse ($\text{width}/\text{length}=1.06$), as broad as but distinctly shorter than pronotum ($\text{elytra}/\text{pronotum}=0.78$); lateral sides gently arcuate, posterior margin emarginate at the middle, posterior angles obliquely truncated; surface more closely and more roughly punctured than on pronotum, and covered with fine brownish pubescence. Hind wings each degenerated to a minute lobe. Legs relatively short; profemur considerably thickened, but abruptly constricted and excavated in apical fourth on the inner face, so that the ventral side of the excavation forms a subtriangular projection; protibia dilated apicad, hollowed in basal half on the inner face and armed with five comb-like transverse rows of yellowish setae within the hollow; meso- and metatibiae simple; 1st to 4th protarsal segments strongly widened, meso- and metatarsi thin.

Abdomen elongate, somewhat broader than elytra ($\text{abdomen}/\text{elytra}=1.13$), widest at the fourth visible segment, then gradually narrowed anteriorly and more strongly so posteriad, basal five tergites each shallowly and transversely depressed



Figs. 3-5. Male genital organ of *Lathrobium mayasanense* Y. WATANABE, sp. nov.; ventral view (3), lateral view (4), and dorsal view (5). Scale: 1.0 mm.

along the base; surface of each tergite moderately closely, superficially punctured and covered with fine brownish pubescence; preapical sternite semicircularly excised at the middle of posterior margin and shallowly longitudinally depressed in front of the excision, surface of the depression provided with short black setae in apical third; 5th visible sternite more shallowly and more broadly excised than preapical sternite at the middle of posterior margin and subtriangularly depressed before the excision, the depression being deeper than that on preapical sternite and covered with fine dark setae on the surface except for glabrous apical area.

Genital organ well sclerotized with the exception of dorsal side of median lobe, elongate, somewhat asymmetrical, and slightly curved to the right side. Median lobe broader but shorter than fused paramere, provided with a well sclerotized plate on the dorsal side, the plate being widest before the middle and much more narrowed basad than apicad. Fused paramere widest near basal fourth and more strongly tapered apicad than basad as seen from the ventral side; ventral surface provided with a pair of fine longitudinal keels in apical half along the median line, but the keels become obscure in apical part.

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

Type series. Holotype: ♂, allotype: ♀, Mt. Mayasan, Hyôgo Pref., Honshu, Japan, 16-IX-1980, Y. WATANABE leg. Paratypes: 2 ♂♂, 1 ♀, same data as for the

holotype; 1 ♂, 1 ♀, same locality and collector as for the holotype, 16-X-1988.

Distribution. Japan (western Honshu).

Notes. This new species is similar to *L. pollens* SHARP in general appearance, but can be distinguished from it by configuration of the secondary sexual character of abdomen and genital organ in the male. It is also allied to *L. densum* BERNHAUER in the broad head, but differs from it in the following points: body larger and robuster, elytra as broad as and more than a half as long as pronotum.

***Lathrobium shingon* Y. WATANABE, sp. nov.**

[Japanese name: Kôya-kobane-naga-hanekakushi]

(Figs. 6-9)

Body length: 7.4-8.6 mm (from front margin of head to anal end); 3.6-4.0 mm (from front margin of head to elytral apices).

The present new species may be placed near *L. sanukiense* Y. WATANABE from the northern part of Shikoku in view of the complicated structure of its male genital organ, but differs from it in the narrow head, configuration of the secondary sexual character of abdomen and genital organ in the male.

Body elongate, parallel-sided and subdepressed above. Colour reddish brown to brownish black and moderately shining, pronotum and elytra opalescent, abdomen feebly iridescent, with mouth parts and legs yellowish brown, antennae and abdomen reddish brown.

Male. Head subquadrate, somewhat depressed above, a little broader than long (width/length=1.18), widest near the middle and gently narrowed both anteriorly and posteriorly, with lateral sides feebly arcuate; frontal area between antennal tubercles transversely flattened and glabrous, bearing a setiferous puncture inside each antennal tubercle; surface sparingly, coarsely and setiferously punctured, except for impunctate vertexal area, the punctures becoming closer on latero-posterior areas than those on disc; eyes small and flat, the longitudinal diameter about one-third as long as post-ocular part. Antennae elongate, extending a little beyond the middle of pronotum and not thickened apically, two proximal segments polished and the remainings more or less opaque, 1st segment robust and strongly dilated apically, more than twice as long as broad, 2nd distinctly longer than broad (length/width=1.46), but much shorter (2nd/1st=0.47) and apparently narrower (2nd/1st=0.69) than 1st, 3rd elongate and somewhat dilated apically, evidently longer than broad (length/width=1.70) and a little longer than 2nd (3rd/2nd=1.21), 4th to 7th equal in both length and width to one another, each distinctly longer than broad (length/width=1.40) and somewhat shorter than 3rd (each of 4th to 7th/3rd=0.82), 8th to 10th equal in both length and width to one another, each a little longer than broad (length/width=1.20) and slightly shorter than 7th (each of 8th to 10th/7th=0.86), apically almost clearly longer than broad (length/width=1.80) and 1.5 times as long as 10th, subacuminate towards the tip.

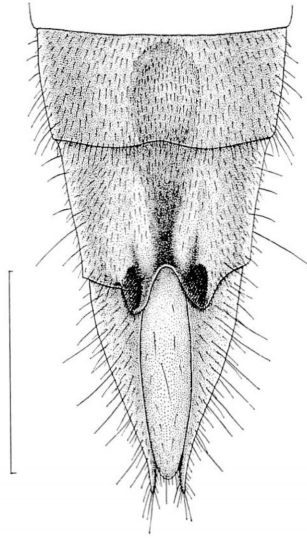
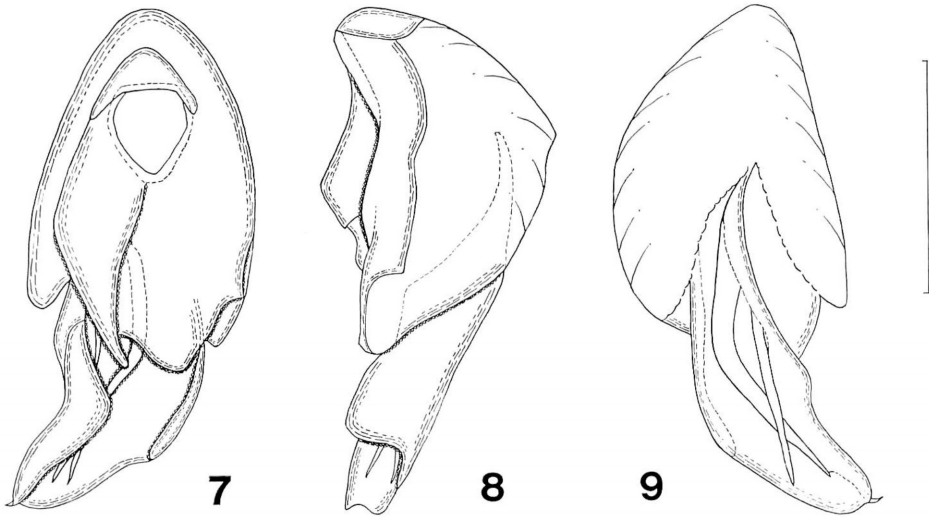


Fig. 6. Last three abdominal sternites in male of *Lathrobium shingon* Y. WATANABE, sp. nov.
Scale: 1.0 mm.

Pronotum gently convex, nearly parallel-sided in anterior three-fourths but distinctly narrowed in posterior fourth, a little longer than broad (length/width=1.18) and slightly broader than head (pronotum/head=1.08), with lateral sides almost straight in anterior three-fourths except near anterior angles but feebly arcuate in posterior fourth; anterior margin gently rounded, posterior margin subtruncate; anterior angles obtuse and not visible from above, posterior ones rounded; surface sparingly, coarsely and setiferously punctured with the exception of a narrow smooth longitudinal area along the median line, which is hardly channeled in posterior half. Scutellum subtriangular, with a few rather coarse setiferous punctures. Elytra nearly oblong, slightly dilated posteriad and somewhat transverse (width/length=1.10), almost as broad as but apparently shorter (elytra/pronotum=0.77) than pronotum; lateral sides feebly arcuate, posterior margin emarginate at the middle, posterior angles obliquely truncated; surface rather densely and somewhat coarsely punctured, and covered with fine brownish pubescence, the punctures being larger and rougher than those on pronotum. Hind wings each degenerated to a minute lobe. Legs relatively short; profemur remarkably thickened, though abruptly constricted in apical fourth; protibia dilated towards the apex, hollowed in basal half on the inner face and provided with five comb-like transverse rows of yellowish setae within the hollow; meso- and metatibiae not modified; 1st to 4th protarsal segments strongly widened, meso- and metatarsi thin.

Abdomen elongate, parallel-sided in basal five visible segments and abruptly narrowed from 6th visible segment to anal end, basal four tergites each shallowly and transversely depressed along the base, surface of each tergite moderately closely,



Figs. 7-9. Male genital organ of *Lathrobium shingon* Y. WATANABE, sp. nov.; ventral view (7), lateral view (8), and dorsal view (9). Scale: 1.0 mm.

superficially punctured and finely pubescent; preapical sternite subtriangularly excised at the middle of posterior margin and longitudinally depressed along the median line before the excision, each side of the excision forming a prominent part which is distinctly depressed at the middle, surface of the depression closely beset with short rigid blackish setae; preceding sternite broadly and shallowly emarginate at the middle of posterior margin, provided with a horseshoe-shaped depression in front of the emargination, surface of the depression more closely pubescent than on other parts.

Genital organ well sclerotized except for the dorsal side of median lobe which is shorter than fused paramere. Fused paramere considerably asymmetrical and partitioned into two parts by a strong longitudinal carina as seen from the ventral side, right part abruptly narrowed in apical half towards the apex which is blunt, left part much broader than the right and broadly rounded at the apex; dorsal plate relatively broad and curved to the left side, widest near the middle and gradually narrowed both basad and apicad.

Female. Similar to the male in general appearance, though the 1st to 4th protarsal segments are not so strongly widened and the last visible abdominal sternite is produced posteriad at the median part of posterior margin and feebly arcuate at the apex.

Type series. Holotype: ♂, allotype: ♀, Mt. Kôya-san, Wakayama Pref., Honshu, Japan, 11-XI-1971, Y. WATANABE leg. Paratypes: 5 ♂♂, 10 ♀♀, same data as for the holotype.

Distribution. Japan (western Honshu).

要 約

渡辺泰明：本州西部地域から採集されたコバネナガハネカクシ種群に含まれる2新種。——コバネナガハネカクシ種群は、オオコバネナガハネカクシ種群と同様、複眼が縮小し、後翅が退化している点で、ほかのナガハネカクシ属の種から容易に区別することができる。この種群に含まれる種として、現在まで日本から9種が報告されているが、それらはいずれも落葉下や腐植土壌中から発見されている。わたしは日本各地から得られたこの種群について検討を進めていたところ、近畿地方から採集された2種が新種と判定されたので、下記のとおり命名記載した。

Lathrobium mayasanense Y. WATANABE マヤサンコバネナガハネカクシ

本種は、兵庫県摩耶山の林床に堆積した腐植土壌中から採集されたもので、体長および外部形態はコバネナガハネカクシに類似している。しかし、この種群の雄腹部腹板に表われる第二次性徴および交尾器の形状が、コバネナガハネカクシのものとは明らかに異なっている。また本種は、頭部の幅広い点で、*L. densum* BERNHAUER に似ているが、体がより大きく強壯で、上翅の幅は前胸背板と同じだが、長さが前胸背板の1/2以上である点で区別することができる。

Lathrobium shingon Y. WATANABE コウヤコバネナガハネカクシ

本種は真言宗ゆかりの高野山で、前種同様、林床の腐植土壌中から採集されたものである。複雑化した雄交尾器の形状から *L. sanukiense* Y. WATANABE に近縁の種であろうと推定されるが、頭部の幅が狭く、雄腹部腹板に表われる第二次性徴や交尾器の形状が異なっている点で区別することができる。

References

- ADACHI, T., 1955. Systematic study on the subfamily Paederinae of Staphylinidae of Japan (Eleventh contribution to the knowledge of Staphylinidae of Japan). *J. Toyo Univ.*, (7): 303–328.
- 1957. The staphylinid fauna of Japan. *Ibid.*, (11): 166–250.
- BERNHAUER, M., 1936. Neuheiten der palaearktischen Staphylinidenfauna II. *Pubb. Mus. ent. Pietro Rossi*, 14: 303–325.
- & K. SCHUBERT, 1912. Staphylinidae III. In JUNK, W., & S. SCHENKLING (eds.), *Coleopterorum Catalogus*, pars 40 (pp. 191–288). W. Junk, Berlin.
- SCHERPELTZ, O., 1933. Staphylinidae VII (Suppl. I). *Ibid.*, pars 129 (pp. 989–1500). W. Junk, Berlin.
- SHARP, D., 1889. The Staphylinidae of Japan. *Anns. Mag. nat. Hist.*, (6), 3: 249–267 [part 6].
- SHIBATA, Y., 1976. Provisional check list of the family Staphylinidae of Japan I (Insecta: Coleoptera). *Annual Bull. Nichidai Sanko*, (19): 71–212. (In Japanese.)
- WATANABE, Y., 1984. The brachypterous staphylinid beetles from Tôhoku District, northeast Japan, with descriptions of four new species. *Mem. natn. Sci. Mus., Tokyo*, (17): 131–144.
- 1986. Three new brachypterous *Lathrobium* (Coleoptera, Staphylinidae) from Japan. *Kontyû, Tokyo*, 54: 688–696.
- 1991. New species of the group of *Lathrobium pollens* (Coleoptera, Staphylinidae) from Shikoku, Japan. *J. speleol. Soc. Japan*, 16: 29–37.
- & Y. SHIBATA, 1965. The staphylinid-beetles from Rishiri and Rebun Isls., Hokkaido, Japan, with descriptions of three new species. *Kontyû, Tokyo*, 33: 317–323.