

## Three New Species of the Genus *Erichsonius* (Coleoptera, Staphylinidae) from Southern China

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**Abstract** Three new species of the staphylinid genus *Erichsonius* are described under the names, *E. nishikawai*, *E. jiuzhaiensis* and *E. yunnanus*. The first species is obtained in Guangxi, the second from Sichuan and the third from Yunnan. All the specimens are found from under dead leaves accumulated at the sides of streams.

Up to the present, five species of the genus *Erichsonius* have been reported from Continental China by BERNHAUER (1939, 1944) and ZHENG (1993). Of these, two species recorded from China by BERNHAUER (1944), *E. kobensis* and *E. japonicus*, are considered questionable if actually occurring in China, as was pointed out by UHLIG and WATANABE (1992).

Examining the specimens of Chinese staphylinids, I have found three interesting species belonging to *Erichsonius*. They were obtained at three different localities, one on Mt. Miao'er Shan in Guangxi, another at Jiuzhaigou in Sichuan and the other from near the Tropical Botanical Garden at Xishuangbanna in Yunnan. All the specimens were found from under dead leaves accumulated at the sides of streams. After a careful examination, it has become clear that these species are new to science. They will be described in the present paper. All the type specimens of the new species to be described are deposited in the collection of the Laboratory of Insect Resources, Tokyo University of Agriculture.

Before going further, I would like to express my sincere gratitude to Dr. Shun-Ichi UÉNO, Visiting Professor at Tokyo University of Agriculture, for his kind advice on the present study. My thanks are also due to Dr. Toshio KISHIMOTO, Tokyo University of Agriculture, Professor Yoshiaki NISHIKAWA, Otomon Gakuin University, and Professor Masataka SATÔ, Nagoya Women's University, for their kindness in providing me with the specimens used in this study.

*Erichsonius (Sectophilonthus) nishikawai* Y. WATANABE, sp. nov.

(Figs. 1, 2, 5–7)

Body length: 5.1–5.4 mm (from front margin of head to anal end); 2.6–2.8 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and somewhat depressed above. Colour black to blackish brown, moderately shining, with mandibles, antennae, elytra and abdomen brownish red, palpi and legs brownish yellow.

Male. Head quadrate and weakly convex, slightly transverse (width/length=1.07) or as long as broad, postocular part nearly straight and about 1.9 times as long as the longitudinal diameter of eye which is somewhat prominent laterally; surface covered with microscopic ground sculpture, and sparingly, coarsely and setiferously punctured, except for impunctate vertexal area, the punctures becoming much closer in the latero-posterior area than in the other areas. Antennae elongate, extending to near the middle of pronotum and slightly thickened towards the apical segment, basal segment polished, 2nd and 3rd subopaque and the remainings opaque, 1st robust and dilated apicad, much longer than broad (length/width=2.88), 2nd somewhat dilated apicad, apparently longer than broad (length/width=1.71), but much shorter (2nd/1st=0.52) and a little narrower (2nd/1st=0.88) than 1st, 3rd elongate, about 2.5 times as long as broad, somewhat longer (3rd/2nd=1.17) but distinctly narrower (3rd/2nd=0.80) than 2nd, 4th to 9th equal in length to one another, 4th apparently longer than broad (length/width=1.67), distinctly shorter (4th/3rd=0.71) but slightly broader (4th/3rd=1.07) than 3rd, 5th equal in width to 4th, 6th to 9th increasing in width, each longer than broad and slightly broader than 5th, 10th a little longer than broad (length/width=1.13) and slightly shorter (10th/9th=0.89) than though as broad as 9th, 11th twice as long as broad and considerably longer (11th/10th=1.78) than though as broad as 9th, excavated at the apex.

Pronotum convex medially and distinctly longer than broad (length/breadth=1.13), clearly longer (pronotum/head=1.20) than though as broad as head, widest just behind anterior angles and then narrowed posteriad; lateral sides finely bordered, feebly arcuate in anterior halves and slightly emarginate in posterior halves, anterior margin somewhat arcuate, posterior margin subtruncate, anterior angles narrowly angulate though not visible from dorsal side, posterior angles rounded; surface more sparingly and less coarsely punctured than on head, except for a narrow smooth median space throughout its length, and covered all over with more distinct coriaceous ground sculpture than on head. Scutellum triangular, closely with somewhat coarse setiferous punctures on the surface. Elytra subtrapezoidal and dilated posteriad, distinctly longer than broad (length/width=1.10), much longer (elytra/pronotum=1.28) and apparently broader (elytra/pronotum=1.31) than pronotum; lateral sides nearly straight, posterior margin somewhat emarginate at the middle, posterior angles rounded; surface densely, finely and superficially punctured and closely covered with fine brownish pubescence; hind wings normal. Legs relatively slender, protarsi somewhat widened.

Abdomen gradually narrowed towards the anal end, 3rd to 5th tergites each shallowly and transversely depressed along the base, less densely punctured than on elytra and covered with fine brownish pubescence, 6th and 7th tergites each more sparingly covered with punctures and pubescence than in the preceding tergite; 8th sternite shallowly and semicircularly emarginate at the middle of posterior margin; 9th sternite

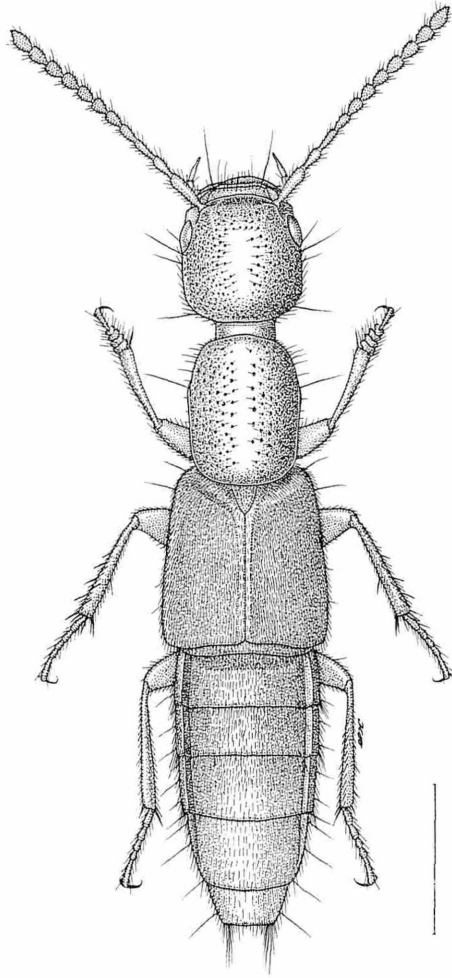
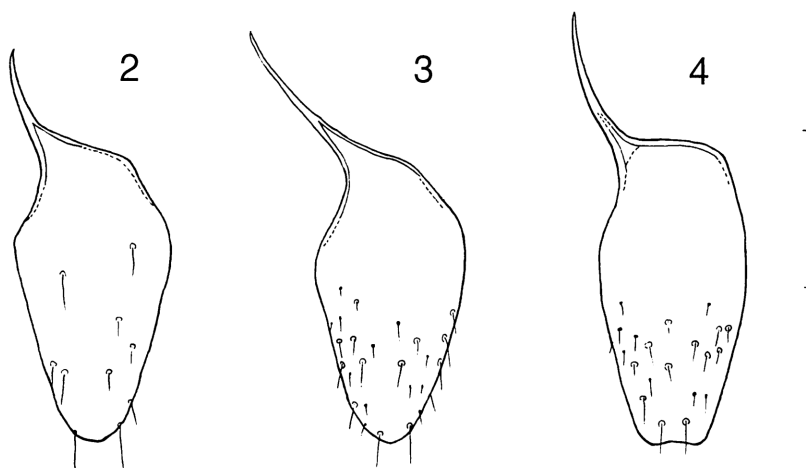


Fig. 1. *Erichsonius* (*Sectophilonthus*) *nishikawai* Y. WATANABE, sp. nov., ♂, from Mt. Miao'er Shan in Guangxi, China. Scale: 1.0 mm.

spatulate, distinctly narrowed in apical fourth towards the rounded apex, surface provided with several short setae.

Genital organ trilobed and symmetrical. Median lobe gradually narrowed apicad in basal half and somewhat constricted at apical fourth, and then abruptly tapered towards the tip which is narrowly rounded; dorsal surface provided with a longitudinal elevation along the median line except for apical area. Parameres slender and distinctly longer than median lobe, each somewhat dilated in apical half and fringed with a number of blackish peg setae on the inner face.

Female. Similar in general appearance to male, but the 1st to 4th protarsal seg-



Figs. 2–4. Ninth abdominal sternites in male of *Erichsonius* (*Sectophilonthus*) spp. — 2, *E. nishikawai* sp. nov.; 3, *E. jiuzhaiensis* sp. nov.; 4, *E. yunnanus* sp. nov. Scale: 0.25 mm.

ments are less widened and the 8th abdominal sternite is simply rounded at the middle of posterior margin.

*Type series.* Holotype: ♂, Mt. Miao'er Shan, above Antang Ping, Xing'an Xian, Guangxi, China, 24–V–1996, Y. NISHIKAWA leg.; allotype: ♀, Mt. Miao'er Shan, Tian Hu, Xing'an Xian, Guangxi, China, 26–V–1996, Y. NISHIKAWA leg. Paratypes: 2 ♂♂, 1 ♀, same locality and date as the allotype, S. UENO leg.; 1 ♂, 3 ♀♀, same data as the allotype; 1 ♀, same locality as the allotype, 26–V–1996, S. UENO leg.

*Distribution.* China (Guangxi).

*Remarks.* The present new species is similar in general appearance to *E. shibatai* from Japan, but is different from it in the following points: head black in colour, with lateral sides almost straight, surface less coriaceous; pronotum more closely and more strongly punctured except for a smooth longitudinal space, and more distinctly coriaceous; elytra more finely punctured; 9th abdominal sternite in male much broader and provided with fewer setae than those of *E. shibatai*; male genital organ with median lobe less constricted before the apex, parameres shorter than those of *E. shibatai*.

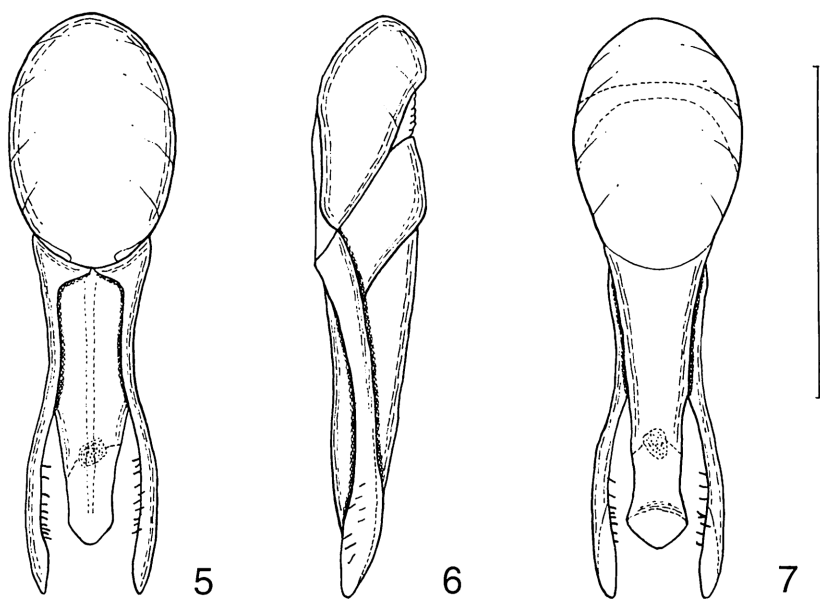
*Bionomics.* The type material was obtained from under dead leaves in deciduous broadleaved forests on Mt. Miao'er Shan at altitudes of 1,830 and 1,980m.

*Etymology.* The specific epithet of the present new species is given after Dr. Yoshiaki NISHIKAWA, who collected the holotype.

***Erichsonius* (*Sectophilonthus*) *jiuzhaiensis* Y. WATANABE, sp. nov.**

(Figs. 3, 8–10)

Body length: 4.0–4.6 mm (from front margin of head to anal end); 2.4–2.6 mm



Figs. 5–7. Male genital organ of *Erichsonius nishikawai* sp. nov.; dorsal view (5), lateral view (6), and ventral view (7). Scale: 0.5 mm.

(from front margin of head to elytral apices).

Body elongate and somewhat depressed above. Colour black to reddish black and moderately shining, with antennae reddish brown, elytra blackish red though sometimes reddish brown along the suture, palpi and legs brownish yellow.

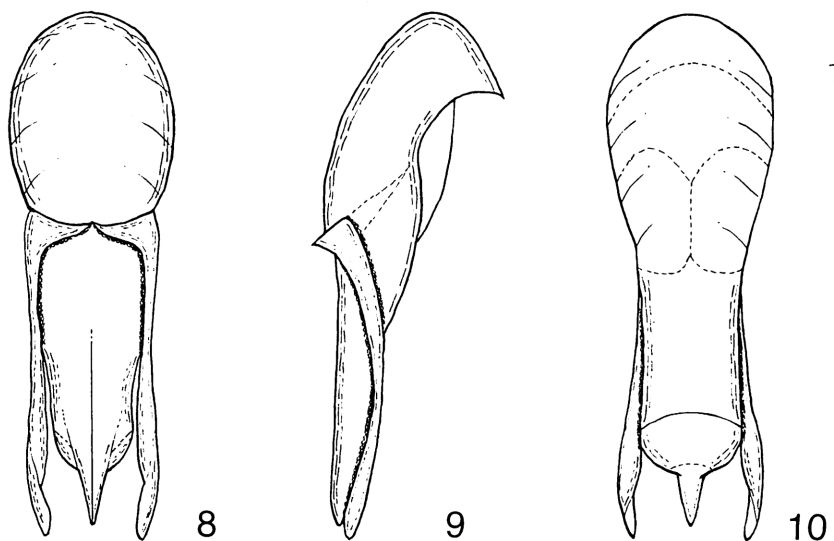
Somewhat similar in facies to the preceding species but readily distinguishable from it by the body smaller and the pronotum lacking in ground sculpture.

Male. Head quadrate, nearly parallel-sided and gently elevated medially, as long as broad; lateral sides almost straight though very slightly emarginate behind the middle; eyes somewhat prominent laterally, the longitudinal diameter of each eye about one-fourth as long as postocular part; surface sparingly and strongly punctured except for impunctate vertexal area, the punctures becoming closer and coarser on the latero-posterior part, and covered with microscopic ground sculpture on vertexal area, which is somewhat finer than in the other part. Antennae moderately elongate, extending to the middle of pronotum and slightly thickened towards the apical segment, basal segment polished, 2nd and 3rd segments subopaque, the remainings opaque, 1st segment robust and dilated apicad, three times as long as broad, 2nd constricted at the base, apparently longer than broad ( $\text{length}/\text{width}=1.67$ ), but considerably shorter ( $2\text{nd}/1\text{st}=0.56$ ) than though as broad as 1st, 3rd more than 2.5 times as long as broad, slightly longer ( $3\text{rd}/2\text{nd}=1.20$ ) but somewhat narrower ( $3\text{rd}/2\text{nd}=0.77$ ) than 2nd, 4th twice as long as broad, but distinctly shorter ( $4\text{th}/3\text{rd}=0.67$ ) and slightly narrower ( $4\text{th}/3\text{rd}=0.87$ ) than 3rd, 5th equal in length to though a little broader ( $5\text{th}/4\text{th}=1.25$ )

than 4th, 6th somewhat longer than broad (length/width=1.30), a little shorter (6th/5th=0.88) but slightly broader (6th/5th=1.08) than 5th, 7th a little longer than broad (length/width=1.33), somewhat longer (7th/6th=1.14) and slightly broader (7th/6th=1.11) than 6th, 8th equal in both length and width to 7th, 10th as long as broad, as long as though slightly broader (10th/9th=1.14) than 9th, 11th distinctly longer than broad (length/width=1.38), somewhat longer (11th/10th=1.38) than though as broad as 10th, excavated at the apex.

Pronotum nearly oblong and elevated medially, apparently longer than broad (length/width=1.21), distinctly longer than (pronotum/head=1.21) though as broad as head; lateral sides slightly arcuate in anterior halves though straight or slightly emarginate in posterior halves, anterior margin arcuate, posterior margin rounded, anterior angles narrowly rounded though not visible from above, posterior ones broadly rounded; surface sparingly, coarsely and setiferously punctured, except for a narrow smooth longitudinal space throughout the length, but ground sculpture almost indistinct. Scutellum subtriangular, provided with fine setiferous punctures. Elytra subtrapezoidal, somewhat dilated posteriad, a little longer than broad (length/width=1.11), distinctly longer (elytra/pronotum=1.24) and apparently broader (elytra/pronotum=1.36) than pronotum; lateral sides almost straight, posterior margin emarginate at the middle, posterior angles rounded; surface closely covered with fine and superficial punctures and fine brownish pubescence. Legs relatively short, similar to those of the preceding species. Hind wings normal.

Abdomen parallel-sided from 3rd to 6th segments and then abruptly narrowed towards the anal end, 3rd to 5th tergites each shallowly and transversely depressed along



Figs. 8–10. Male genital organ of *Erichsonius jiuzhaiensis* sp. nov.; dorsal view (8), lateral view (9), and ventral view (10). Scale: 0.5 mm.

the base, closely and very finely punctured and closely covered with fine brownish pubescence, 7th and 8th sternites each more sparingly punctured and pubescent than the precedings, 8th sternite shallowly and semicircularly emarginate at the middle of posterior margin; 9th sternite similar in form to that of the preceding species though provided with more numerous setae.

Genital organ trilobed and symmetrical. Median lobe abruptly narrowed apicad in apical sixth; dorsal surface finely and longitudinally carinate along the middle, the carina abbreviated in basal half. Parameres elongate, slightly shorter than median lobe, each more or less dilated in apical part and lacking peg setae.

Female. Similar in facies to male, though the 1st to 4th protarsal segments are not widened, and the abdomen with the 8th sternite broadly rounded at the middle of posterior margin.

*Type series.* Holotype: ♂, allotype: ♀, Jiuzhaigou, Jiuzhaigou Xian, Sichuan, China, 30–VIII–1998, M. SATÔ leg. Paratypes: 4 ♀♀, same locality and date as the holotype, T. KISHIMOTO leg.; 3 ♀♀, same locality and collector as the above, 28–VIII–1998.

*Distribution.* China (Sichuan).

*Bionomics.* The type material was obtained from under dead leaves in a mixed forest at Jiuzhaigou at an altitude of 2,100 m.

*Etymology.* The specific name of this new species is derived from the type locality “Jiuzhaigou”.

***Erichsonius (Sectophilonthus) yunnanus* Y. WATANABE, sp. nov.**

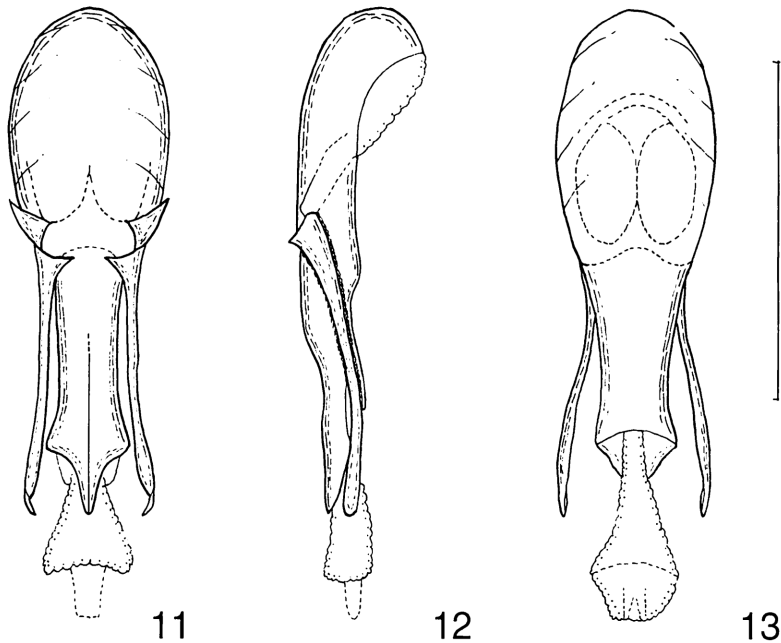
(Figs. 4, 11–13)

Body length: 3.8–4.2 mm (from front margin of head to anal end); 2.1–2.4 mm (from front margin of head to elytral apices).

Body elongate and subparallel-sided. Colour black to dark reddish black and moderately shining, with antennae, except for yellowish brown 1st segment, tibiae and tarsi reddish brown, palpi, coxae and femora yellowish brown.

Male and female. Somewhat similar in colour and facies to the preceding species but different from it in the following points:

Head somewhat more evenly elevated medially, surface much more closely and more finely punctured, the punctures becoming sparser and coarser as in the preceding species, though lacking ground sculpture in frontal area; eyes relatively large, the longitudinal diameter five-sixths as long as postocular part; pronotum more distinctly narrowed posteriad, lateral sides more strongly emarginate in posterior two-thirds, surface much more closely punctured except for a narrow smooth longitudinal space; elytra relatively long (length/width=1.14), distinctly longer (elytra/pronotum=1.40) and broader (elytra/pronotum=1.36) than pronotum, surface more closely and more finely punctured; abdomen less closely and somewhat more coarsely punctured; in male, 8th sternite more broadly and more shallowly emarginate at the middle of posterior mar-



Figs. 11–13. Male genital organ of *Erichsonius yunnanus* sp. nov.; dorsal view (11), lateral view (12), and ventral view (13). Scale: 0.5 mm.

gin; 9th sternite nearly elliptical, more gently narrowed apicad, posterior margin slightly emarginate at the middle.

Male genital organ trilobed and symmetrical as that of the preceding species; median lobe slightly narrowed apicad though abruptly dilated before the apex which is produced into a spearhead, dorsal surface provided with a fine longitudinal carina along the middle in posterior half; parameres slender and as long as median lobe, each slightly widened before the apex and lacking peg setae.

*Type series.* Holotype: ♂, allotype: ♀, bank of the Luosuo-jiang River, near the Tropical Botanical Garden, Menglun, Mengla, Xishuangbanna, SW. Yunnan, China, 30-X-1992, Y. WATANABE leg. Paratypes: 3 ♂♂, 1 ♀, same data as the holotype.

*Distribution.* China (southwestern Yunnan).

*Bionomics.* The type material was obtained from under dead leaves accumulated on a river bank at an altitude of about 570 m.

*Etymology.* The specific epithet of this new species is derived from “Yunnan” in which lies the type locality.

## 要 約

渡辺泰明：中国南部から採集されたヒメホソハネカクシ属（甲虫目ハネカクシ科）の3新種。——中国からは、これまでにヒメホソハネカクシ属に含まれる5種が報告されている。し



かし、そのうちのツヤヒメホソハネカクシおよびクロヒメホソハネカクシの2種の分布記録は、UHLIG & WATANABE (1992)によって疑問視され、それぞれ近縁の未記載種である可能性が指摘されている。私は手許にある中国産ヒメホソハネカクシ属に含まれる3種を検討した結果、いずれも未記載種であることが判明したので、下記のとおり命名・記載した。

1. *Erichsonius* (*Sectophilonthus*) *nishikawai* Y. WATANABE

この種は、广西壮族自治区苗儿山の標高1,830mおよび1,980mの地点で、落葉広葉樹林の林床に堆積した落葉層から採集された。概観は日本から記載された*E. shibatai*に類似しているが、頭部は黒色で、両側は直線に近く、表面の微細構造はより弱いこと、前胸背板はより密に、より強く、また、翅鞘はより細かく点刻されること、雄の第9腹板ははるかに幅広く、交尾器の形状も明らかに異なることによって容易に区別される。

2. *Erichsonius* (*Sectophilonthus*) *jiuzhaiensis* Y. WATANABE

本種は、四川省北西部の九寨溝の標高2,100mの地点で、広葉樹と針葉樹の混交林の林床に堆積した落葉層から採集された。外部形態は前種に類似しているが、やや小型で、前胸背板には微細印刻が認められず、雄交尾器の中葉ははるかに幅が広く、先端が突出し、側葉は黒色の peg setae を欠いていることで区別される。

3. *Erichsonius* (*Sectophilonthus*) *yunnanus* Y. WATANABE

云南省西双版納熱帯植物園の脇を流れる罗梭江の水際で採集された本種は、色彩および外部形態が前種に類似しているが、頭部は微細印刻を欠き、点刻はより密で、より細かいこと、前胸背板はより強く後方に狭まり、表面の点刻ははるかに密であること、翅鞘の点刻はより密で、より細かいこと、雄の第9腹板はほぼ楕円形で、後縁中央が弱く湾入していること、交尾器の中葉末端の形状が異なることなどによって区別される。

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