

Lathrobium brachypterum and its New Relative (Coleoptera,
Staphylinidae) from Central Honshu, Japan

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Abstract *Lathrobium brachypterum* and its relative are dealt with. The former is redescribed based on the type specimen, and its male genital organ is described and illustrated for the first time. The latter is described as a new species under the name of *L. adachii* from central Honshu, Japan.

Lathrobium brachypterum described by SHARP (1889, p. 255) and its relative species form a peculiar group within the genus on account of medium-sized body and degenerated hind wings. Since SHARP's description, it has been reported by many entomologists from various localities of Honshu, Shikoku and Kyushu, Japan. However, it has been confused until now with its relatives due to similar body-size and facies. Therefore, I would like to illustrate the type specimen of *L. brachypterum* and its male genital organ is described and illustrated for the first time. Besides, a new species will be described in the present paper. It is closely similar in general appearance to *L. brachypterum*, but differs from it in the configuration of the male genital organ.

Before going further, I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO, Visiting Professor at the Tokyo University of Agriculture, for his kind advice on the present study. Deep gratitude is also due to the following colleagues for supplying me with many specimens for this study: Mrs. Shiho ARAI, Prof. Young-Bok CHO, Dr. Hiroki MIZUSHIMA, Mr. Seidai NAGASHIMA, Dr. Shûhei NOMURA, Mr. Hiroki ONO, Mr. Yasutoshi SHIBATA, Mr. Takashi SHIMADA, Dr. Shuji TACHIKAWA, Mr. Yoshiaki TAHIRA, and Mr. Koji ARAI, and also to Dr. Wataru SUZUKI and Mr. Yasutoshi SHIBATA for permission to use the photographs of the type specimen preserved in the British Museum (Natural History).

Lathrobium (Lathrobium) brachypterum SHARP

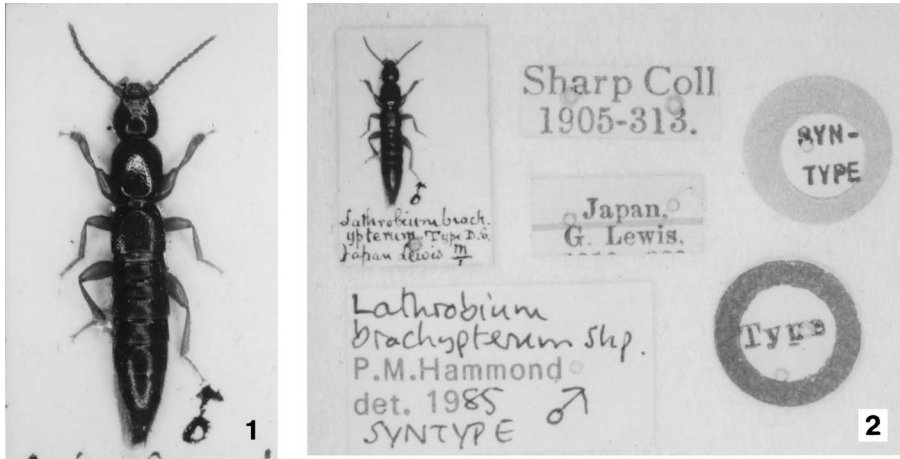
[Japanese name: Himekobane-nagahanekakushi]

(Figs. 1–3, 5–7)

Lathrobium brachypterum SHARP, 1889, Ann. Mag. nat. Hist., (6), **3**: 255.

Other references are omitted.

Body length: 6.9–8.9 mm (from front margin of head to anal end); 3.4–3.6 mm (from front margin of head to elytral apices).



Figs. 1-2. *Lathrobium brachypterum* SHARP; habitus (1), labels attached to the type (2).

Body elongate, nearly parallel-sided and somewhat depressed above. Colour reddish brown to blackish brown and moderately shining, with labrum, palpi, legs and apical two abdominal segments brownish yellow.

Head subquadrate and somewhat depressed above, almost as long as wide, widest at posterior fourth and more strongly narrowed anteriorly than posteriorly, frontal area between antennal tubercles transversely flattened and glabrous along frons, provided with a relatively large setiferous puncture inside each antennal tubercle; surface much sparsely, somewhat coarsely and setiferously punctured, the punctures more or less becoming closer in latero-basal areas and covered with extremely microscopic coriaceous ground sculpture only visible under high magnification; eyes small and nearly flat, their longitudinal diameter less than a half the length of postocular parts which are gently arcuate. Antennae elongate, extending to the middle of pronotum and not thickened towards the extremity, two proximal segments polished, 3rd subopaque and the remainings opaque, 1st segment robust and dilated apically, twice as long as wide, 2nd constricted at the base, a half as long as and somewhat narrower than 1st ($2nd/1st = 0.83$), 3rd more than 1.5 times as long as wide, a little longer ($3rd/2nd = 1.33$) than though as wide as 2nd, 4th to 10th equal in both length and width to one another, each somewhat longer than wide ($length/width = 1.20$), somewhat shorter (each of 4th to 10th/ $3rd = 0.75$) than though as wide as 3rd, 11th fusiform, distinctly longer than wide ($length/width = 1.80$), 1.5 times as long as and as wide as 10th, subacuminate at the apex.

Pronotum elevated medially and slightly trapezoidal, only slightly narrowed posteriorly, a little longer than wide ($length/width = 1.14$), distinctly longer ($pronotum/head = 1.38$) and somewhat wider ($pronotum/head = 1.14$) than head; lateral sides almost straight except near anterior and posterior angles, anterior margin gently arcuate,

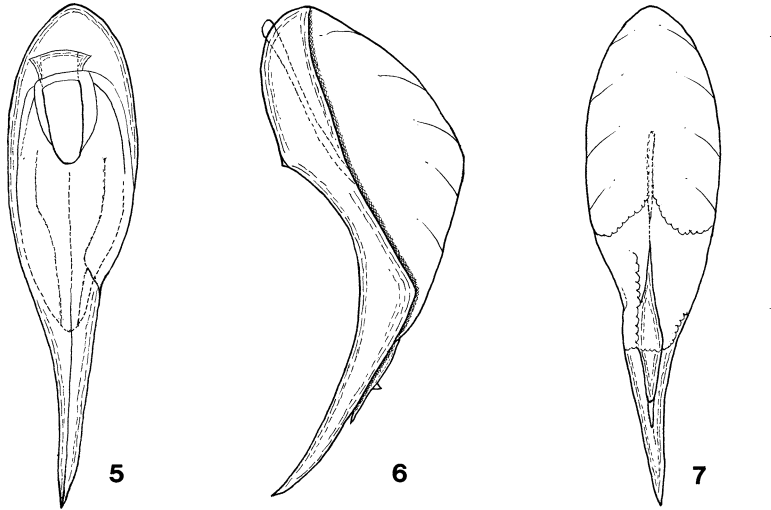


Figs. 3-4. Secondary sexual characters of abdominal sternites in the male; *L. (L.) brachypterum* SHARP (3), *L. (L.) adachii* sp. nov. (4). Scale: 0.2 mm.

posterior margin subtruncate, anterior angles obtuse and not visible from dorsal side, posterior ones narrowly rounded; surface more closely and more coarsely punctured than in medio-frontal area of head except for a narrow smooth median space through the length of pronotum. Scutellum subtriangular, surface provided with a few minute setiferous punctures and obscure ground sculpture. Elytra subtrapezoidal, slightly dilated posteriad and subdepressed above, somewhat transverse (width/length=1.14), distinctly shorter (elytra/pronotum=0.76) but slightly wider (elytra/pronotum=1.04) than pronotum; lateral sides feebly arcuate, posterior margin emarginate at the middle, posterior angles broadly rounded; surface superficially and much more closely punctured than in pronotum, and covered with fine brownish pubescence. Hind wings degenerated to minute lobes which are about one-fourth as long as elytra. Legs moderately long; femora, tibiae and tarsi, all of which are similar in structure to those of other members of this species-group.

Abdomen elongate and slightly dilated towards the 7th segment, and then abruptly narrowed aipcad; 3rd to 7th tergites each closely aciculate and finely punctured, and closely covered with fine brownish pubescence, 8th and 9th tergites each more sparingly and more finely punctured and pubescent than in the preceding tergites; 8th sternite slightly produced posteriad or subtruncate at the middle of posterior margin, and flattened before the produced or subtruncate part, the flattened part provided with more closely covered with brownish pubescence than in other areas; 7th sternite truncate at the middle of posterior margin and longitudinally, shallowly depressed in front of truncate part; 6th sternite simple.

Genital organ well sclerotized except for the ventral side of median lobe. Median



Figs. 5-7. Male genital organ of *Lathrobium (Lathrobium) brachypterum* SHARP; dorsal view (5), lateral view (6), and ventral view (7). Scale: 1.0 mm.

lobe not extending to the apex of fused paramere, provided with an elongate sclerite on the ventral side, the sclerite being widest near the middle and narrowed both basad and apicad, and forming a small dorsal hook at the middle as seen from lateral side. Fused paramere somewhat asymmetrical and relatively narrow, slightly curved to the right, nearly parallel-sided in basal half and then abruptly narrowed towards the pointed apex as seen from dorsal side, and strongly curved dorsad in profile; dorsal surface provided with a fine longitudinal carina along the middle in apical half, though the carina becomes obscure in basal half.

F e m a l e. Similar in general appearance to male, but differs from it in the 8th abdominal sternite produced posteriad at the median part of posterior margin and narrowly rounded at the apex.

Specimens examined. 3 ♂♂, 3 ♀♀, Chisuji-no-taki, Miyanoshita, Hakone, Kanagawa Pref., Honshu, Japan, 1-VI-1969, Y. SHIBATA leg.; 1 ♂, 1 ♀, same locality and collector as above, 7-VI-1970; 1 ♀, Mt. Sengen, Miyanoshita, Hakone, Kanagawa Pref., Honshu, Japan, 23-V-1966, Y. WATANABE leg.; 1 ♂, 1 ♀, Mt. Kami-yama, Hakone, Kanagawa Pref., Honshu, Japan, 30-VI-1983, Y. WATANABE leg.; 2 ♂♂, same locality as above, 25-V-1974, Y. SHIBATA leg.; 2 ♂♂, 1 ♀, Hōki-zawa, Tanzawa, Kanagawa Pref., Honshu, Japan, 11-V-1996, Y. WATANABE leg.; 11 ♂♂, 5 ♀♀, Yōsui-zawa, Yamakita-machi, Kanagawa Pref., Honshu, Japan, 10-XI-2002, S. ARAI leg.; 3 ♂♂, 2 ♀♀, Toi-tōge, Izu, Shizuoka Pref., Japan, 30-III-2001, Y. WATANABE leg.; 1 ♂, 1 ♀, Yahazudai, Amagi-kōgen, Shizuoka Pref., Honshu, Japan, 4-V-2000, Y. WATANABE leg.; 1 ♂, 3 ♀♀, Amagi-tōge (850 m alt.), Kawazu, Shizuoka Pref., Honshu, Japan, 20-X-2000, S. NOMURA leg.; 2 ♂♂, 5 ♀♀, Mt. Tohgasa-yama, Nakaizu-machi, Shizuoka

Pref., Honshu, Japan, 12–VIII–1999, T. SHIMADA leg.; 1 ♂, 2 ♀♀, Mt. Manjirô, Kazawa-bunkiten (1,180m alt.), Nakaizu-machi, Shizuoka Pref., Honshu, Japan, 12–XI–2000, S. ARAI leg.; 1 ♀, Mt. Manzaburô, Mizuba (1,000 m alt.), Nakaizu-machi, Shizuokka Pref., Honshu, Japan, 12–XI–2000, S. ARAI leg.; 7 ♂♂, 9 ♀♀, Mt. Mitsumine, Shizuoka Pref., Honshu, Japan, 11–X–1982, Y. TAHIRA leg.; 1 ♂, 1 ♀, Ume-gashima-onsen, Shizuoka Pref., Honshu, Japan, 1–VI–1986, Y. WATANABE leg.; 7 ♂♂, 4 ♀♀, Fureoka-machi, Ôtsuki-shi, Yamanashi Pref., Honshu, Japan, 23–V–1982, Y. WATANABE leg.

Distribution. Japan (central Honshu).

Bionomics. The greater number of the above specimens were obtained by sifting dead leaves accumulated in deciduous broadleaved forests or extracted from leaf-litter on the mountain-side by Tullgren funnel.

Remarks. Similar to *L. monticola* SHARP (1889, p. 255) in the secondary sexual characters of abdominal sternites in the male, but differs from it in the larger body and configuration of male genital organ. Also similar to *L. satoi* Y. WATANABE (2003, p. 151) in configuration of male genital organ, but somewhat different from it in the narrower fused paramere.

***Lathrobium (Lathrobium) adachii* Y. WATANABE, sp. nov.**

[Japanese name: Adachi-himekobane-nagahanekakushi]

(Figs. 4, 8–10)

Body length: 7.6–8.0 mm (from front margin of head to anal end); 3.2–3.5 mm (from front margin of head to elytral apices).

The present new species is closely similar in body size and morphological characters to the preceding species, but slightly different from it in the following points:

Male. Head subquadrate and somewhat depressed above, a little transverse (width/length=1.11), widest at about posterior fourth and more strongly narrowed anteriorly than posteriorly, lateral sides less arcuate than in the preceding species; surface sparingly, setiferously and more coarsely punctured than in the preceding species, the punctures much sparser in medio-frontal area than in latero-basal areas, and covered with slightly coarser coriaceous ground sculpture all over than in the preceding species; eyes small and nearly flat, their longitudinal diameter less than one-third the length of postocular part which is slightly less expanded laterally than in the preceding species. Antennae moderately long, extending a little beyond the middle of pronotum and not thickened towards the apical segment, antennal articulation similar in that of the preceding species.

Pronotum elevated medially, subtrapezoidal and somewhat narrowed posteriorly, a little longer than wide (length/width=1.13), distinctly longer (pronotum/head=1.37) and somewhat wider (pronotum/head=1.10) than head; surface sparingly and coarsely punctured except for a narrow smooth median space through the length of pronotum as

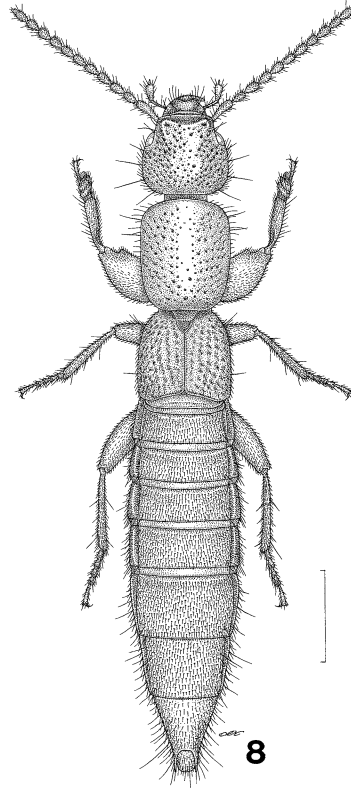
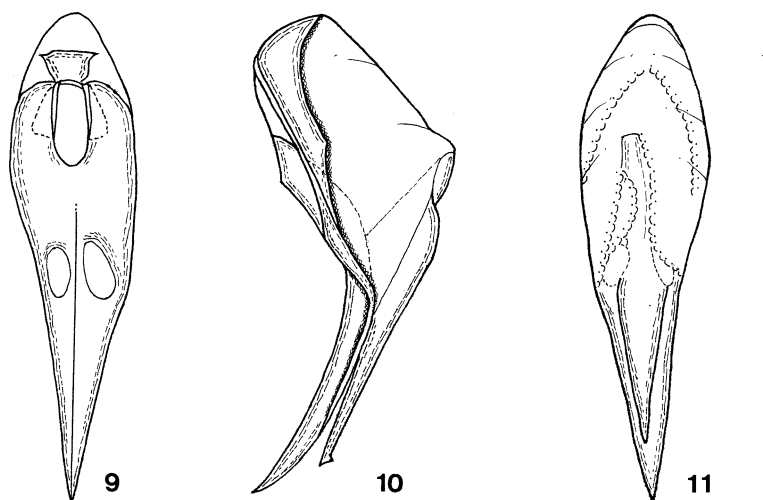


Fig. 8. *Lathrobium (Lathrobium) adachii* sp. nov., from Mt. Sengen-yama, Miyanoshita, Hakone, central Honshu, Japan. Scale: 1.0 mm.

in the preceding species. Scutellum subtriangular, surface provided with a few minute setiferous punctures as in the preceding species. Elytra subquadrate though slightly dilated posteriad, less transverse (width/length=1.05) than in the preceding species, distinctly shorter (elytra/pronotum=0.85) than though as wide as pronotum, lateral sides, posterior margin and posterior angles similar to those of the preceding species; surface slightly more densely and slightly more coarsely punctured than in the preceding species. Hind wings degenerated to minute lobes as in the preceding species. Legs moderately long, femora, tibiae and tarsi similar in structure to those of the preceding species.

Abdomen elongate, almost parallel-sided from 3rd to 7th segments and then abruptly narrowed towards the anal end, 3rd to 7th tergites each closely, superficially punctured and covered with fine brownish pubescence as in the preceding species, 8th and 9th tergites each more sparingly punctured and pubescent than in the preceding tergites; 8th sternite shallowly and semicircularly emarginate at the middle of posterior



Figs. 9–11. Male genital organ of *Lathrobium (Lathrobium) adachii* sp. nov.; dorsal view (9), lateral view (10), and ventral view (11). Scale: 1.0 mm.

margin and provided with long-subtriangular depression in front of the emargination, surface of the depression more closely provided with blackish brown setae than in other part; 7th sternite broadly and shallowly emarginate at the middle of posterior margin, bearing a linguiform depression before the emargination, surface of the depression covered with brownish pubescence as in other parts; 6th sternite simple.

Genital organ spindle-shaped and almost symmetrical, well sclerotized except for membreneous ventral side of median lobe. Median lobe extending to near the apex of fused paramere, with ventral sclerite subrhomboidal, widest near the middle and narrowed both basad and apicad, apex forming a minute dorsal hook as seen from lateral side. Fused paramere abruptly narrowed in apical two-thirds towards the acutely pointed apex as seen from dorsal side, strongly curved dorsad in apical half in profile, surface provided with a longitudinal carina along the median line, though the carina becomes obscure near the median foramen, and bearing an obviously elliptical depression on each side of the longitudinal carina near the middle.

F e m a l e. Similar in facies to the male, though the 8th abdominal sternite narrowed towards the narrowly rounded apex, gradually in basal two-thirds and abruptly so in apical third, and provided with a dull longitudinal elevation along the median line on the surface.

Type series. Holotype: ♂, Mt. Kami-yama, Hakone, Kanagawa Pref., Honshu, Japan, 30-VI-1983, Y. WATANABE leg. Allotype: ♀, same locality as above, 25-V-1974, Y. SHIBATA leg. Paratypes: 1 ♂, same data as the holotype; 2 ♂♂, 1 ♀, same locality as above, 25-V-1974, Y. SHIBATA leg.; 1 ♀, same locality and collector as above, 1-VI-1974; 3 ♂♂, 1 ♀, Mt. Daigatake, Hakone, Kanagawa Pref., Honshu, Japan, 3-III-2001,

H. MIZUSHIMA leg.; 1 ♂, 2 ♀♀, Mt. Sengen, Miyanoshita, Hakone, Kanagawa Pref., Honshu, Japan, 23-V-1966, Y. WATANABE leg.; 2 ♀♀, Chisuji-no-taki, Miyanoshita, Hakone, Kanagawa Pref., Honshu, Japan, 7-VI-1970, Y. SHIBATA leg.; 1 ♂, Ubako, Hakone, Kanagawa Pref., Honshu, Japan, 23-VI-1975, Y. SHIBATA leg.; 3 ♂♂, 3 ♀♀, Sengokuhara, Hakone, Kanagawa Pref., Honshu, Japan, 1-VI-1969, Y. SHIBATA leg.; 4 ♂♂, 1 ♀, Kamiyu, Hakone, Kanagawa Pref., Honshu, Japan, 24-VIII-2000, Y.-B. CHO leg.; 3 ♂♂, 3 ♀♀, Mt. Ôyama, Isehara, Kanagawa Pref., Honshu, Japan, 19-IV-2000, S. ARAI leg.; 7 ♂♂, 3 ♀♀, Fudakake, Kiyokawa Vill., Kanagawa Pref., Honshu, Japan, 19-X-2000, S. ARAI leg.; 5 ♂♂, 1 ♀, Makino, Fujino, Kanagawa Pref., Honshu, Japan, 19-VI-1987, Y. WATANABE leg.; 5 ♂♂, 5 ♀♀, Mt. Manjirô, Kozawa-bunkiten (1,180 m alt.), Nakaizu-machi, Shizuoka Pref., Honshu, Japan, 12-XI-2000, S. ARAI leg.; 2 ♂♂, 4 ♀♀, Mt. Manzaburô, Mizuba (1,000 m alt.); Nakaizu-machi, Shizuoka Pref., Honshu, Japan, 12-XI-2000, S. ARAI leg.; 1 ♀, same locality and date as above, S. NAGASHIMA leg.; 1 ♂, 4 ♀♀, Seiwa-kenmin-no-mori, Ozaki, Kimitsu-shi, Chiba Pref., Honshu, Japan, 21-IX-2004, H. ONO leg.; 5 ♂♂, 9 ♀♀, Mt. Mitake, Okutama, Tokyo Pref., Honshu, Japan, 3-V-1964, S. TACHIKAWA leg.; 8 ♂♂, 6 ♀♀, same locality as above, 18-V-1997, Y. WATANABE leg.; 1 ♂, Mizunozawa, Okutama, Tokyo Pref., Honshu, Japan, 2-V-1980, Y. WATANABE leg.; 1 ♂, 1 ♀, Mt. Takao, Tokyo Pref., Honshu, Japan, 6-VII-1976, Y. WATANABE leg.; 1 ♂, 2 ♀♀, same locality as above, 20-VII-2000, Kei. MATSUMOTO leg.; 6 ♂♂, 5 ♀♀, Mt. Kumotori, Tokyo Pref., Honshu, Japan, 8-VII-1965, Y. WATANABE leg.; 4 ♂♂, 4 ♀♀, Suwa-jinja, Han'nou C., Saitama Pref., Honshu, Japan, 11-X-1998, K. TOYODA leg.; 1 ♂, 3 ♀♀, Kitamuki-jizou, Moroyama, Saitama Pref., Honshu, Japan, 11-X-1998, S. ARAI leg.; 1 ♂, same locality and date as above, K. TOYODA leg.; 1 ♂, Shishigataki, Moroyama, Saitama Pref., Honshu, Japan, 3-X-1998, K. TOYODA leg.; 2 ♀♀, Hashidate, Chichibu, Saitama Pref., Honshu, Japan, 17-VII-1999, S. ARAI leg.; 1 ♂, same locality as above, 7-VI-2002, K. TOYODA leg.

Type depositary. All the type specimens are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. Japan (central Honshu).

Bionomics. The type specimens were mainly obtained by shifting dead leaves accumulated in deciduous broadleaved forests on the hills and mountains. A small number of specimens were extracted from leaf-litter by Tullgren-funnel.

Etymology. The specific epithet of the present new species is dedicated to the late ex-Pref. Tsunamitsu ADACHI, Toyo University, who was one of the pioneers in taxonomy of the Japanese Staphylinidae.

要 約

渡辺泰明: ヒメコバネナガハネカクシ *Lathrobium brachypterum* SHARP および近縁の1新種。
— SHARP (1889) によって記載されたヒメコバネナガハネカクシおよび近縁の種は、いずれも

中型で、黒褐色を呈し、後翅が退化した特徴的種群を形成している。ヒメコバネナガハネカクシは原記載後、これまで多くの人達によって日本各地から記録されているが、同所的に生息し、色彩および類似した外部形態を呈する近似種と混同されてきた。そこで、私はヒメコバネナガハネカクシの基準標本を紹介するとともに、近縁の1新種をアダチヒメコバネナガハネカクシ *Lathrobium (Lathrobium) adachii* と命名・記載した。後者は前者と同様な形態的概観を呈するが、雄交尾器側葉の形状が異なることで区別される。なお、種小名は日本におけるハネカクシの分類学に関する先駆者の一人である安立綱光先生に献名したものである。

References

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WATANABE, Y., 2003. *Lathrobium satoi* (Coleoptera, Staphylinidae), a new staphylinid beetle from Tōkai District in central Honshu, Japan. *Spec. Bull. Jpn. Soc. Coleopterol., Tokyo*, (6): 151–155.

Elytra, Tokyo, 38(2): 265, November 13, 2010

New Records of Three Staphylinid Species (Coleoptera) from the Island of Ishigaki-jima of the Ryukyus, Japan

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Examining the staphylinid beetles deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, I have found three unrecorded species from the Island of Ishigaki-jima of the Ryukyu Archipelago, Japan. They are recorded below with the collecting data.

1. *Rugilus (Eurystilicus) ceylanensis* (KRAATZ)
1 ♀, Takeda-rindō, Ishigaki-jima, Ryukyus, 23–IV–2003, H. SATŌ leg.
2. *Pinophilus rufipennis* SHARP
1 ♀, Takeda, Ishigaki-jima, Ryukyus, 28–III–1990, T. NONAKA leg.
3. *Neobisnius praelongus* (GEMMINGER et HAROLD)
7 ♀♀, Takeda, Ishigaki-jima, Ryukyus, 30–III–1990, T. NONAKA leg.

I thank Dr. Yoshifuki NONAKA and Mr. Hiroki SATŌ for their kindness in giving me the specimens.