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A New Species of *Stenus cirrus*-Group (Coleoptera, Staphylinidae, Steninae) from Japan, with Discussion on the Morphology of Spermatheca*

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Abstract The species group of *Stenus cirrus* BENICK is defined, and the morphology of spermatheca for the group is discussed. The 9th new species, *Stenus sugiei*, of the group is described from Honshu, Japan, and a key to the Japanese species is provided.

The species-group of *Stenus cirrus* Benick belongs to the subgenus *Parastenus*, and up to now eight species has been known from China (2 species) and Japan (6 species): *S. cirrus* BENICK, 1940 from NW-China; *S. beckeri* BENICK, 1941 from China (W-Szechuan); *S. domburi* HROMĂDKA, 1979; *S. sawadaianus* HROMĂDKA, 1979; *S. yashiro* NAOMI et PUTHZ, 1994; *S. cirriformis* NAOMI, 1988; *S. sakaii* NAOMI et PUTHZ, 1996; and *S. longisetosus* PUTHZ, 1993 (see the key concerning the distribution of Japanese species). In this paper, the species group is first defined, and the morphology of the spermatheca is discussed. The 9th new species, *Stenus sugiei*, of the group is described from Ishikawa and Toyama Prefs., Honshu, and a key to the Japanese species is provided. The 9th sternites of male and female, the spermatheca and the aedeagus are illustrated for comparison. The holotype is deposited in the Natural History Museum and Institute, Chiba, and all the other specimens are deposited in my collection unless otherwise mentioned in "Specimens examined" and "Type series". Concerning the abbreviation on the relative measurements, see Naomi, 1995.

The Species Group of S. cirrus BENICK

The species group of *Stenus cirrus* is defined by the combination of the following characters: Body completely black, with yellow to reddish brown legs; brachypterous; all the 4th tarsomeres simple, not bilobed; abdomen strongly brilliant, provided with erect long setae; paratergites present on basal abdominal segments, and tergosternal sutures only found on the sides of posterior abdominal segments; secondary sexual characters of male abdomen usually found on 8th sternite as emargination; aedeagus obtusely to acutely pointed, with median band relatively thin; spermatheca bent twice, with or without coiled part at 1st bend.

In Japan the species of this group have been known from Western part of Honshu, Shikoku and northern Kyushu. All the Japanese species are rare, and are usually collected from leaf litter.

^{*} Studies on the subfamily Steninae from Japan, XXVII.

Morphology of Spermatheca for the Species Group of *Stenus cirrus* BENICK

In a part of *Stenus*-species, the spermatheca and spermathecal duct are well sclerotized, and there are frequent cases where their peculiar structures are useful for taxonomic studies (see PUTHZ, 1971, p. 21 and the references cited therein). This is true of the species group of *S. cir*-*rus*. In this section I intend to explain the structure of the spermatheca and its terminology for description.

There is a basic structure (plan) of the spermatheca for the species of *S. cirrus* group. Namely, from the opening of the spermatheca the tube extends straight anteriorly (cephalad), then it bends 180° posteriorly (caudad), again it bends 180° anteriorly, and ends with the apical specialized structure. Morphologically, the apical part is probably the structure called "cornu" (and also "collum") where the sclerotized tube and the membranous tube are connected alternately; all the other part except for the apical part is probably the sclerotized spermathecal duct.

For the sake of descriptions, the spermatheca is divisible into 4 parts based on the morphology mentioned above: (1) the basal tube between the opening and the 1st bend, (2) the median tube between the 1st and 2nd bends, (3) the apical tube between the 2nd bend and the base of cornu, and (4) the cornu (or cornu + collum). A membranous connection is usually present in the middle course of the basal tube. Coiled part of the tube is usually found around the 1st bend, but the shape and size of the part are more or less different from one species to another. The directions of the cornua are also different among species. When the cornu turns toward the side where the opening of the spermatheca is located (e. g., Fig. 2 D), it is described as "turning (or curving) inside". In the reversed case (Fig. 2 H) it is described as "turning (or curving) outside".

Stenus (Parastenus) sawadaianus HROMÀDKA

Stenus sawadaianus HROMÄDKA, 1979, Fragm. Coleopt., (25/28): 100.

Stenus (Parastenus) cf. sawadaianus: PUTHZ, 1993, Rev. suis. Zool., 100(1):160 (partim).

Description of female: Eighth sternite rounded at posterior margin; 9th sternite (= hemisternite) with a posterolateral projection incurved and pointed, a small tooth inside the projection (Fig. 1 B); spermatheca (Fig. 1 C) with tubes rather thick, membranous connection of basal tube situated a little before or near the 2nd bend, coiled part present only at the 1st bend, cornu extending anteriorly beyond 1st bend, straight (Fig. 1 C) or slightly curving inside, with globose apex.

Specimens examined. $1 \stackrel{\circ}{\uparrow}$, Mt. Hiei, Kyoto Pref., 3. X. 1957, K. SAWADA (paratype; PUTHZ collection); $1 \stackrel{\circ}{\uparrow}$, Seryo-Toge, 13 km N. Kyoto, Kyoto, Japon, 500-600 m, 6. VIII. 1980, I. LÖBL leg. (Mus. hist. nat., Geneve); $1 \stackrel{\circ}{\checkmark}$ and $3 \stackrel{\circ}{\uparrow} \stackrel{\circ}{\uparrow}$, Mt. Kenashi, Tottori-shi, Tottori Pref., 23. V. 1989, N. TSURUSAKI leg.; $1 \stackrel{\circ}{\land}$, Obara, Saji-mura, Tottori Pref., 5. VI. 1988, N. TSURUSAKI leg.; $1 \stackrel{\circ}{\uparrow}$, Kawanari, Kisawa, Naka-gun, Tokushima Pref., 10. VIII. 1969, M. YOSHIDA leg.

Distribution. Japan (Honshu, Shikoku).

Remarks Stenus sawadaianus was first described by HROMADKA (1979) based on 2 males and 2 females from Mt. Hiei, Kyoto-fu. I examined the female paratype of Mt. Hiei, the



Fig. 1. A, D, *Stenus domburi* HROMADKA (Funato, Kochi); B-C, *S. sawadaianus* HROMADKA (Seryo, Kyoto). A-B, Ninth sternite of female; C-D, spermatheca. Scale: 0.1 mm.

only type-locality of this species. Although the spermatheca is partially broken, the following characters were observed: the spermatheca is a little thinner than that from Seryo, Kyoto (Fig. 1 C), and the coiled part at the 1st bend is a little more complex than that from Seryo. The cornu of the spermatheca from Tottori curves, with the apex oriented almost anteriorly, and the coiled part is similar to that from Mt. Hiei. On the other hand, the conditions of the straight cornu and the coiled part of the spermatheca from Tokushima, Shikoku are similar to those in Fig. 1 C, althouth the spermatheca is as a whole a little thinner. In this paper these variations concerning the structures of the cornu and the coiled part and the breadth of the tube are considered as the infraspecific, because the basic structure of the spermatheca is the same for these female specimens. Further examinations are however needed to grasp the range of their variation on much more specimens.

PUTHZ (1993) carefully recorded the two probable females from Kyoto and Toyama Prefs. under the name of *Stenus (Parastenus)* cf. *sawadaianus*. I examined them and found that one specimen from Kyoto is *S. sawadaianus*, while the other from Toyama is *S. sugiei* sp. nov. described below. In this paper *S. sawadaianus* is first recorded from Shikoku based on one female.

Stenus (Parastenus) sugiei NAOMI sp. nov.

Stenus (Parastenus) cf. sawadaianus: PUTHZ, 1993, Rev. suis. Zool., 100(1):160 (partim).

Male and female. Body 4.0-4.7 mm in length, cylindrical, setiferous on abdomen.

Coloration: Body entirely black; maxillary palpi reddish brown; labrum black, with anterior margin reddish brown; antennae yellowish brown to dark brown; legs yellowish brown to reddish brown, with apical parts of femora somewhat infuscate.



Fig. 2. A-D, *Stenus sugiei* sp. nov. (Nabetani, Ishikawa); E-F, *S. longisetosus* PUTHZ (Ishizuchi, Ehime); G-H, *S. sakaii* NAOMI et PUTHZ (Odami, Ehime). A, Ninth sternite of male; B, aedeagus in ventral view; C, E, G, 9th sternite of female; D, F, H, spermatheca. Scales: 0.1 mm (1:A-C, E, G; 2:D, F, H).

Relative measurements: HL: 30; HW: 48; PL: 37; PW: 38; EL: 41; EW: 46; SL: 31.

Head with clypeofrontal area covered with microsculptures, without distinct punctures, basiantennal tubercles small, strongly shining; interocular area relatively narrow, about 1.2 times as broad as the eye at the middle, a pair of longitudinal sulci converging anteriorly, median part between the sulci moderately convex, but a little lower than the top of eye; punctures moderate in density on median area, and interstices sometimes greater than diameter of punctures, while punctures near inner margin of eye very dense, round, distinct, each about as great as median cross-section of 10th antennal segment in diameter, interstices very narrow, strongly shining. Antennae very slender, when reflexed extending to the posterior 1/3 of pronotum, 2nd segment much broader than 3rd, 3rd to 7th equal in breadth, 9th and 10th each globose, 11th spindle-shaped; ALP: 9: 10: 16: 12: 12: 8: 6: 5: 6: 7: 10.

Pronotum well convex dorsally, broadest near the middle, then narrowed anteriorly, weakly constricted at base; surface slightly uneven, with a median longitudinal depression which is broadest near the middle and about 1/2 the length of pronotum; punctures coarse, very dense, diameter of a large puncture about as great as median cross-section of 9th antennal segment, interstices distinctly microsculptured.

Elytra weakly narrowed at base, moderately convex dorsally, weakly rounded laterally, conjoined hind margins very widely and shallowly V-shaped; surface weakly uneven, with punctures very dense, large, somewhat coarse, about as large as those on the sides of head, interstices indistinctly microsculptured.

Legs relatively long; hind leg with 1st tarsomere about as long as the 3 followings combined, 4th simple, parallel-sided.

Abdomen narrowed posteriorly, strongly brilliant, covered with long, sparse, straight and erect setae in addition to short sparse setae born in punctures; paratergites on 3rd and 4th segments very narrow, horizontal or slightly slant in position, punctate, tergosternal sutures only found in posterior segments; 3rd tergite with punctures very large and elliptical at base, dense, medium in size, round, and regular near posterior margin, interstices about half the length of punctures, indistinctly microsculptured; punctures becoming smaller and sparser posteriorly from 3rd to 5th tergites; punctures very fine on 6th to 8th tergites.

Male: Eighth sternite with a shallow emargination at the middle of posterior margin; 9th sternite (Fig. 2 A) with a pair of pointed posterolateral projections, posterior margin faintly serrate. Aedeagus (Fig. 2 B) broadest a little before the middle, then narrowed apically, pointed at apex; parameres extending a little before the apex of median lobe, strongly spatulate, each with setae of various lengths along margin of apical spatulate area.

Female: Eighth sternite gently rounded at posterior margin; 9th sternite as in Fig. 2 C; spermatheca (Fig. 2 D) with basal tube about as long as apical tube, straight, coiled part of tube tight in a mass around the 1st bend, median tube slightly wavy, cornu relatively short, turning inside.

Type series: Holotype, male (CBM-ZI 34410), Nabetani, Tatsunokuchi-cho, Ishikawa Pref., 28. VII. 1995, Y. SUGIE leg. Paratypes, 11 exs., same locality, 3.V.-15. IX. 1995, Y. SUGIE leg; 1 female, Japon, Toyama, Kaminikawa, Arimine 1150 m, 29. VII. 1980, I. LÖBL leg. (Mus. hist. nat., Geneve).

Distribution. Japan (Honshu).

Remarks Stenus sugiei sp. nov. is separable from S. sawadaianus HROMÅDKA by the less strongly constricted median lobe and the cornu of the spermatheca strongly bent inside, and is

also separable from *S. sakaii* NAOMI et PUTHZ by the broader apical part of the median lobe and the tight coiled part of the spermatheca.

Specimen measured is a paratype (Tatsunokuchi-cho, 7. vi. 1995).

Etymology This species is named in honour of Mr. YOSHIHARU SUGIE (Tatsunokuchicho, Ishikawa) who collected this new species.

A Key to the Japanese Species of S. cirrus-Group

- Median lobe of aedeagus obtusely pointed (HROMÁDKA, 1979, fig. 7); 9th sternite of female as in Fig. 1A; spermatheca without coiled part at 1st bend (Fig. 1D); distribution (Shikoku: Kochi)
 S. domburi HROMÁDKA.
- 2 (1) Median lobe of aedeagus pointed or acutely pointed.
- 3 (10) Coiled tube of spermatheca tight around 1st bend.
- 4 (5) Spermatheca thicker (Fig. 1 C); median lobe (HROMÁDKA, 1979, fig. 1) constricted near the middle, then subparallel-sided before the apicolateral corners, pointed at apex; distribution (Honshu: Kyoto, Tottori; Shikoku: Tokushima)
- 5 (4) Spermatheca thinner; median lobe more or less narrowed apically.
- 6 (7) Spermatheca (NAOMI, 1988a, fig. 1 E) with basal, median and apical tubes each thinner, very slender and straight, coiled part smaller; median lobe narrow, uniformly narrowed apically, with acutely pointed apex (NAOMI, 1988a, fig. 1 D; see also NAOMI and PUTHZ, 1994, p. 257); distribution: (Kyushu: Saga, Nagasaki)
- 7 (6) Spermatheca with tubes thicker, with median and/or apical tubes weakly or moderately curving, coiled part larger.
- 8 (9) Median lobe broader (NAOMI, 1988, fig. 1A); spermatheca with cornu straight (NAOMI, 1988, fig. 1 B); distribution (Honshu: Hiroshima)
 S. cirriformis NAOMI.
- 9 (8) Median lobe narrower (Fig. 2 B); spermatheca with cornu turning inside (Fig. 2 D); distribution (Honshu: Ishikawa and Toyama) *S. sugiei* sp. nov.
- 10 (3) Coiled tube of spermatheca loose not only around 1st bend, but also on median and/or apical tubes.

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My hearty thanks first go to Dr. V. PUTHZ (Limnologische Flußstation des MPI für Limnologie, Schlitz) for his critical reading of an earlier version of the manuscript, his kind loan of the paratype of *Stenus sawadaianus*, and his kindness in giving me valuable informations of *S. cirrus*-group. I thank Dr. I. LÖBL (Museum d'histoire naturelle, Geneve) for his kind loan of the *Stenus*-specimens deposited in his institute. I also thank Dr. N. TSURUSAKI (Tottori University, Tottori), Dr. I. LÖBL (Geneve), Mr. Y. SUGIE (Ishikawa), Dr. K. SAWADA (Takatsuki, Osaka) and Mr. M. YOSHIDA (Tokushima City) who collected *Stenus* species used in this paper. Finally but not least I express my indebtness to the anonymous referee for his valuable comments on the morphology of spermatheca.

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Ent. Rev. Japan, 52 (1): 8, June 15, 1997

New Records of Japanese Staphylinid Beetles, VI

By TATEO ITO

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Priochirus (Paraborolinus) bicornis (NAKANE et SAWADA)

Borolinus (Paraborolinus) bicornis NAKANE et SAWADA, 1960, Sci. Rep. Kyoto Pref. Univ., 3(2): 121.; WATANABA et SHIBATA, 1972, J. agr. Sci.Tokyo Univ.Agr., 17(1) 60; SHIBATA, 1974, Ann. Bull. NIchidai Sanko, (17): 8, 1976, Ann. Bull. Nichidai Sanko, (19): 88.

Priochirus (Paraborolinus) bicornis: NAOMI, 1996, Jpn.. J. syst. Ent. 2(1): 11.

Specimens examined : Yakushima Is., Kagoshima Pref.-- 1 ex., 1. I. 1960, Y. KIMURA leg.; 1ex., Tabukawa, 11. VII. 1961, K. UEDA leg.; 1 ex., Kosugidani, 9.VII.1963, H.KONISHI leg.; 1 ex., ditto, 21. VII. 1968, T. HATAYAMA leg.; 1ex., Miyanoura, 11. VIII. 1965, H.KONISHI leg.; 2 exs., ditto, 17.VII.1968, T. HATAYAMA leg. and K.TANIZAWA leg.; 4exs., ditto, 5.V.1984, T. ITO leg.; 1ex., ditto, 1.V.1984, K. MIZUNO leg.; 4exs., Nagata, 7.IV.1965, M. YASUI leg.; 1ex., Hananoego, 25.VII.1966, H.NOMURA leg.; 8exs., ditto, 21. VII. 1968, H. NOMURA leg.; 2 exs., Shiratani, 7. IV. 1984, K. HOSAKAWA leg. Tanegashima Is., Kagoshima Pref.-- 1 ex., Ohanazato, 6. IV. 1984, M. SAWAI leg.; 1ex., Nakatane-cho, 3.I.1988, K. ITO leg.

Distribution : Japan (Yakushima Is., Kuchinoerabu Is., Tanegashima Is.*) *Remarks* This is the first record from Tanegashima Is.

Priochirus (Plastus) kimurai NAOMI

Priochirus (Plastus) kimurai NAOMI, 1996, Jpn. J. syst. Ent. 2(1): 14.

Specimens examined : 3 exs., Yona, Okinawa-Honto Is., Okinawa Pref., 22. III. 1982, M. SAWAI leg.; 1 ex., Benaki-rindo, Okinawa-Honto Is., Okinawa Pref., 5. IV. 1986, M.SAWAI leg.; 2exs., Mt.Omoto, Ishigaki Is., Okinawa Pref., 15. IV. 1983 and 16. IV. 1988, M. SAWAI leg.

Distribution : Japan (Okinawa-Honto Is., Ishigaki Is.*)

Remarks This is the first record from Ishigaki Is.

(* Newly recorded)

A Study on the Elaterid-Beetles of SHIBATA Collection from Taiwan.V. (Coleoptera: Elateridae) On the Subfamily Denticollinae: Tribes Denticollini, Hemicrepidiini and Dimini

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Abstract This is the fifth part of the series dealt with the elaterid-beetles from Taiwan collected by the collaborators of Mr. T. SHIBATA. A species of the tribe Denticollini, three of the Hemicrepidiini and three of the Dimini in the subfamily Denticollinae are reported, one of which is newly described as *Penia takasago*.

Subfamily **Denticollinae** Tribe Denticollini

Denticollis puerilis MIWA, 1931 (Fig. 1)

Denticollis puerilis MIWA, 1931, Trans. nat. Hist. Soc. Formosa, 21 (113): 83 (Arisan in Formosa).
Specimens examined: 1♀, Meifo, 4. V. 1971, Y. HAYASHI leg.; 1♀, Nanshanchi:, 14. IV. 1971, K.
TOU leg.; 1♂, Roshan: 31. III. 1971, H. NOMURA leg.

Tribe Hemicrepidiini

Subathous tattakensis (MIWA, 1928) comb. nov. (Fig.2)

Paradima tattakensis MIWA, 1928. Ins. mats., 3 (1): 38. Pl.1, fig. 1 (Tattaka in Formosa).

Specimens examined: 1 J, Meifo, 4. V. 1971, Y. HAYASHI leg.; 1 J, Sungkang, 14. IV. 1970, T. KOBAYASHI leg.; 2 J J, 4. IV. 1971, H. NOMURA leg.

This species was originally described as the representative elaterid beetle of the new genus *Paradima* by MIWA in 1928, but in 1931 and 1934 he transfered it to the genus *Athous*. As stated in my previous report (Ent. Rev. Jap., 48 (1), 1993: 16-17), however, it belongs undoubtedly to the genus *Subathous* FLEUTIAUX, 1918 (Ann. Soc. ent. France, 87: 203. Type-species: *Subathous tonkinensis* FLEUTIAUX, 1818).



Figs.1 & 2. l. *Denticollis puerilis* MIWA.1931: a. $\stackrel{\circ}{\leftarrow}$ (6281), Nanshanchi, 17.1V.1971, .K. TOU leg., 9.8 mm; b. male genitalia (62-82). Roshan, 31. III. 1971, H. NOMURA leg. 2. *Subathous tattakensis* (MIWA, 1928): a. $\stackrel{\circ}{\sim}$ (6279). Sungkang, 14. IV. 1970, T. KOBAYASHI leg., 13.2 mm; b. male genitalia (6279), ditto.



Figs.3 & 4. 3. *Parathous sulcicollis* (MIWA, 1928): a. A, Sungkang, 26. VI. 1972, Y.MAEDA leg., 11.7 mm; b. male genitalia (5487), Oiwake, 24. VI. 1961, T. SHIROUZU leg. 4. *Taiwanathous arisanus* MIWA, 1930: a. A (6371), Funchifo, 28. IV. 1971, Y.HAYASHI leg., 11.8 mm; b. male genitalia, ditto.

Parathous sulcicollis (MIWA, 1928) (Fig.3)

- Athous sulcicollis MIWA, 1928. Ins. mats., 2 (3): 136-137, pl. V. fig. 7 (Taikan in Mt.Niitaka & Rakuraku in Formosa).
- Parathous sanguineus FLEUTIAUX, 1918: MIWA, 1930. Trans. nat. Hist. Soc. Formosa, 20 (107) : 88 (Formosa) .

Specimens examined: 3 3 3, Sungkang, 29. VI. 1971, 3 3 3, 30. VI. 1971, 1 3 3, 2. VII. 1971 and 2 3 3, 26. VI. 1972, Y. MAEDA leg.

In 1930, MIWA had synonymized his species *Athous sulcicollis* with *Parathous sanguineus* FLEUTIAUX, 1918 from Indochina. But, according to my previous examination (KISHII & JIANG, 1996), the Taiwanese species is doubtlessly valid and indigenous elaterid to Taiwan. Therefore the name should be resurrected as cited above.

Taiwanathous arisanus MIWA, 1930 (Fig. 4)

Taiwanathous arisanus MIWA, 1930. Trans. nat. Hist. Soc. Formosa, 20 (107): 68 (Mt.Arisan in Formosa). Specimen examined: 1 \mathcal{J} , Funchifo, 28. IV. 1971, Y. HAYASHI leg.

Tribe Dimini Csikia dimatoides SZOMBATHY, 1910 (Fig. 5)

Csikia dimatoides SZOMBATHY, 1910, Ann. Mus. nat. hung., 8: 359 (Formosa) Specimen examined: 1 ♂, Yuli, 23. V. 1972, Y. KIYOYAMA leg.

Parapenia taiwana (MIWA, 1930) (Fig. 6)

Csikia taiwana MIWA, 1930, Wien. ent. Zeit., 47 (2): 93 (Taihorinsho, Mt. Arisan, Kwarenko & Baibara in Formosa).

Specimens examined: 1 ex., Funchifo, 24. VI. 1972, Y. KIYOYAMA leg.; 1 ex., Sungkang, 6. VIII. 1969, T. KOBAYASHI leg.



Figs.5 & 6. 5. *Csikia dimatoides* SZOMBATHY, 1910: a. ♂ (5900), Yuli, 23. V. 1972, Y. KIYO-YAMA leg., 9.5 mm; b. male genitalia, ditto. 6. *Parapenia taiwana* (MIWA, 1930): a. ♂ (6283) Funchifo, 24. VI. 1972, Y.KIY-OYAMA leg., 8.8 mm; b. male genitalia, ditto.

Takashi Kishii

Penia takasago KISHII sp. nov.(Fig. 7)

Female: $9.1 \times 3.8 - 9.3 \times 3.8$ mm. Elongate-ovate, rather gourd-shaped, distinctly slender, feebly flattened above as well as below, remarkably dilated at postero-lateral sides of elytra, weakly and roundly convex above in middle of pronotum and elytra, and generally subopaque all over. Wholly pale castaneous, head and pronotum somewhat darkened. Pubescence tender, exceedingly long, rather dense, erect and entirely yellowish with clear golden tint.

Head broad but not so large, narrowed between eyes, evenly flattened, slightly declivous antero-inferiad, feebly and medio-longitudinally depressed at frons; relative breadth across eyes to each eye in dorsal view as 45:18(ca. 2.5 times). Front margin of frons obviously carinate before eyes, then slightly curved and becoming obsolescent at the middle, and finally confluent with hind edge of labrum, namely front area or groove entirely absent at the middle, but the vestige visible before antennal sulci; surface of frons generally smooth, but in high magnification minutely shagreened all over, with coarse and rather large punctures.



Fig.7. Penia takasago KISHII sp.nov. : a. $\stackrel{\circ}{\rightarrow}$, holotype, Sungkang, 21. VIII. 1969, Y.MAEDA leg., 9.0 mm; b. sclerotized formation in bursa copulatrix of female genitalia (6348), paratype. Sungkang, 6. VIII. 1969, Y.MAEDA leg.; c. right antenna. 1st to 6th; d. right half of pronotum; e. scutellum; f. left metacoxal plate; g. prosternal process in profile.



Antennae elongate and slender, subfiliform, attaining near the middle of elytra; relative length/width from basal joint to 6th as 32/15 : 15/9 : 22/ll : 31/l0 : 35/l0.5 : 36/9 respectively (Fig. 7-c); basal joint robust, nearly barrel-shaped and expanded at apico-anterior side, 2nd sub-triangular, 3rd to l0th oblong triangular or subfiliform, and terminal joint subequal in both length and width to the preceding joint.

Pronotum (Fig.7-d) remarkably wider than long, feebly and transversely convex above, without any median line nor furrow; relative median length and width as 62 : 100; lateral sides distinctly and roundly expanded outwards in the middle, thickly margined, narrowly grooved and clothed with dense and large punctures along the margin, and fine unicarination running from hind angle to front corner along inner side of the groove; hind angles triangular, obviously developed postero-laterad, clearly and acutely pointed at each apex, which bears a small and feebly emarginate basal notch at hind edge; median part of hind margin distinctly and broadly emarginate before scutellum, with a conspicuous and small notch at each lateral end; anterior edge broadly and roundly emarginate. Surface entirely glabrous, sparsely, irregularly and minutely punctured, and interstices generally more than 5 times as wide as average diameter of the punctures.

Scutellum (Fig.7-e) broad, subsemicircular, wholly flattened, rarely having a vestige of median longitudinal elevation, obliquely declivous antero-inferiad; relative median length and basal width as 28:32; anterior margin a little roundly enlarged anteriad, thickly marginate along edge, with dense, minute and transverse wrinkles; base simply rounded at sides, lateral margins feebly emarginate just behind base, then roundly convergent towards rounded posterior end.

Elytra elliptical, a little roundly convex above at the middle and strongly expanded laterad beyond the middle; humeri rounded; lateral sides limitedly ridged, and narrowly depressed along side margin; apices weakly rounded; striae finely and discontinuously canaliculate, with deep, subirregular and elliptic punctures; intervals feebly elevated and smooth, and punctures distinct, rather denser and larger than those of pronotum.

Prosternum broad, a little widened at anterior corners, remarkably and medio-longitudinally elevated behind the middle, more densely and coarsely punctured in lateral sides than on pronotum but almost impunctate in middle; anterior lobe semicircular, weakly declivous anteroinferiad, entirely rounded, with obviously dense and large punctures. Prosterno-pleural sutures rather straight and narrowly separated but the anterior ends perfectly closed. Prosternal process strongly ridged at latero-anterior sides between procoxal cavities and depressed; in profile (Fig. 7-g) slightly emarginate behind procoxae, broadened near the middle, and rounded at hind apex, with lateral sides feebly and evenly concave. Propleural punctures larger and denser than pronotal ones, their interstices nearly twice as wide as or less than the average diameter of punctures; whole surface perfectly smooth. Mesosternal groove rhombic, distinctly hollowed at the middle, with each side simple, without any protuberance. Metasternal punctures nearly equal to propleural ones, but more or less sparser and finer. Metacoxal plates (Fig.7-f) feebly dilated near each base, then gently narrowing towards lateral end, which is weakly truncated.

Legs slender, with 3rd and 4th tarsal joints lobed at postero-inferior end.

Bursa copulatrix in genital organ as figured (Fig.7-b). Male unknown.

Holotype: $\stackrel{\circ}{\uparrow}$, Sungkang, Nantou Hsien, 21. VII.1969, Y. MAEDA leg. Paratypes: $\stackrel{\circ}{\uparrow}$, Musha, Nantou Hsien, 7. VIII, 1969, T. KOBAYASHI leg.; $\stackrel{\circ}{\uparrow}$, Sungkang, Nantou Hsien, 6. VII. 1969, Y. MAEDA leg.; $\stackrel{\circ}{\uparrow}$, Funchifo, Chiai Hsien, 8. V. 1970, Y. KIYOYAMA leg.

This new species closely resembles *Penia babai* KISHII,1994 from South Taiwan, but it is readily distinguishable from the latter by the following characters: medio-longitudinal furrow on the frons distinct and deeper, the prothorax relatively smaller and well expanded laterad at the middle, hind angles of the pronotum narrow and clearly developed postero-laterad at each apex the scutellum a little wider, the elytra more elongate and the prosternal process distinctly narrower in profile.

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A Study on the Elaterid-Beetles of SHIBATA Collection from Taiwan, VI. (Coleoptera: Elateridae) On the Subfamily Denticollinae: Tribe Prosternini

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Abstract This is the sixth part of the series dealt with the elaterid-beetles collected in Taiwan by the collaborators of Mr. T. SHIBATA. Five species of the tribe Prosternini in the subfamily are reported.

Tribe Prosternini (= Ctenicerini)

SILFVERBERG (1992) published the correct usage of the tribe Prosternini GISTEL (1856) as the senior name to the Corymbitites CANDÈZE (1863) and the Ctenicerini FLEUTIAUX (1936), and JOHNSON (1995) ratified also this treatment.

Corymbitodes fuscipes (MIWA, 1931) (Fig. 1)

Corymbites gratus var. fuscipes MIWA, 1931. Trans. nat. Hist. Soc. Formosa, 21 (113): 72, 73 & 94 (Arisan & Musha in Formosa)

Specimen examined: 1 3, Lishan, Nantou Hsien, 29. III. 1971, H. NOMURA leg.

Corymbitodes speciosus (MIWA, 1928) (Fig. 2)

Corymbites speciosus MIWA, 1928, Ins. mats., 2 (3): 144-145, pl. V, fig. 24 (Musha in Formosa). Specimens examined: $2 \partial^{\wedge} \partial^{\wedge}, 1 \stackrel{\circ}{+}$, Lishan, Nantou Hsien, 30. III. 1970, H. NOMURA leg.

Gnathodicus temperatus (MIWA, 1930) (Fig.3)

Athous (Alcimathous) temperatus MIWA, 1930. Trans. nat. Hist. Soc. Formosa, 20 (107): 66 & 67 (Mt. Arisan, Musha and Kwarenko in Formosa).

Specimens examined: 1 ♂, Sungkang, Nantou Hsien, 29. VI. 1971 and 1 ♂, 30. VI. 1971, Y. MAEDA leg.



Figs. 1 & 2. 1. Corymbitodes fuscipes (MIWA.1931): a. \mathcal{J} , Lishan, 29. III. 1971, H. NOMURA leg., 10.6 mm; b. male genitalia (3732), Tsuifeng, 2. V. 1978, A. SHINOHARA leg. 2. Corymbitodes speciosus (MIWA, 1928): a. \mathcal{J} , Lishan, 30. III. 1970, H. NOMURA leg., 7.9 mm; b. male genitalia (5386), Meifon near Hofuan Shan, 10. VI. 1987, K. BABA leg.



Figs. 3 & 4. 3. *Gnathodicrus temperatus* (MIWA, 1930): a. \mathcal{J} , (62-80), Sungkang, 30. VI. 1971, Y.MAEDA leg., 11.2 mm; b. male genitalia, ditto. 4 . *Actenicerus formosensis* (MIWA. 1928): a. \mathcal{P} , Taiwan without further data, native collector leg., 25.2 mm; b. male genitalia (0455), Musha, 9. V. 1922, K. TAXEUCHI leg.; c . sclerotic plate in bursa copulatrix of female genitalia (5229), Sungkang, 28. V. 1989, K. BABA leg.; d. ditto.

Actenicerus formosensis (MIWA, 1928) (Fig.4)

Corymbites formosensis MIWA, 1928, Ins. matsum., 2 (3): 139, Pl .V, fig.12 (Tattaka in Formosa).

Actenicerus maculipennis: FLEUTIAUX, 1947, Notes D' Ent. chinoise, ll (8): 323 (Formosa), part., nec Ludius maculipennis SCHWARZ, 1902.

Specimen examined: 1 ^Q, Formosa, 1969, (without further data), native collector leg.

Actenicerus mushanus (MIWA. 1928) (Figs. 5 & 6)

Corymbites mushanus MIWA, 1928, Ins. mats., 2 (3): 139-140, Pl. V, fig.13 (Musha in Formosa).



Fig. 5. Actenicerus mushanus (MIWA, 1928): a. ♂, Sungkang, 1. IV. 1971, H. NOMURA leg.,13.3 mm; b. male genitalia(8342).ditto.

Specimen examined: 1 Å, Sungkang, Nantou Hsien, 1. IV. 1971, H. NOMURA leg.

This species was originally described as the independent species, but MIWA (1931) downgraded it to the variety of *A. formosensis*. According to my latest examination, it is undoubtedly a good species due to many important characters, especially in having a clearly different structure of the male genitalia.

In most cases *Actenicerus* species are extremely similar to each other in general appearance including the elytral maculation, therefore it is very difficult to determine exact specific name without the examination of the male genitalia as I (1996) already pointed out.

The present species from Taiwan is also clearly allied to *A. maculipennis* (SCHWARZ, 1902) from southern China, but it is distinguishable from the latter by the following points: the



Figs. 6 & 7. Right antenna. joints 1st to 6th. 6. Actenicerus mushanus (MIWA. 1928); 7. A. maculipennis (SCHWARZ, 1902) from China.

body smaller and more slender (length: 13.3 mm & width: 3.4 mm), the pubescence silver white only, the elytra immaculate, the punctures on the head larger and denser, the 3rd antennal joint normally triangular and wider (figs. 6 & 7), the pronotal punctures smaller and a little sparser, the pronotal hind angles slenderly projected postero-laterad, the scutellum slightly narrower, the propleural punctures denser and each apico-lateral expansion of the paramere in the male genitalia acutely pointed at lateral projection (Fig. 5-b).

Moreover, it closely resembles *A. takeshii* ARIMOTO, 1992 from Taiwan, but the apico-lateral expansion of paramere is different in the shape as compared with the illustration of aedeagus in the original description of the latter.

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A New Species of *Pidonia (Mumon) amabilis* Group (Coleoptera, Cerambycidae) from Taiwan, with Recognition of the *amabilis* Group and their Distribution

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Abstract A new species belonging to the *amabilis* group of the lepturine genus *Pidonia* newly proposed is described from the central part of the Chung-yang Mountain Range in Taiwan, under the name of *P*. (*Mumon*) alsophila. Their vertical distribution is noted with reference to the vegetational zonations.

Key words: *Pidonia (Mumon)*; Coleoptera; Cerambycidae; new species; vertical distribution; Taiwan.

Up to the present, 30 species of the genus *Pidonia* MULSANT have been recorded from Taiwan. They are divided into three subgenera, *Pidonia* s. str., *Cryptopidonia* KUBOKI and *Mumon* HAYASHI. The subgenus *Mumon* is composed of nine species including a new species, and they are divided into four species groups. The *amabilis* group, one of the groups, consists of four species, *amabilis*, *alsophila* sp. nov., *sacrosancta* and *chienhsingi* and is characterized mainly by the following combination of morphological features: head and prothorax almost reddish yellow, rather shinning; scutellum almost black; lateral lobes of male genitalia deeply bilobed at apex, each lobe elongate, relatively slender and gently curved inwards.

The present paper contains the result of my study on the species of the subgenus *Mumon* obtained in the mountainous areas of Taiwan with a description of *Pidonia* (M.) alsophila n. sp. The distributional ranges of four species of the *amabilis* group are clarified and the correlation of the distribution pattern with vertical vegetational zonations is showed. The holotype of the new species described below will be deposited in the collection of the National Museum of Natural Science, Taichung, Taiwan.

In preparing this paper, I wish to express my hearty thanks to Mr. J. ITO and Prof. N. OH-BAYASHI, College of Agriculture, Ehime Univ., who gave me the opportunities to work with these interesting materials.

Pidonia (Mumon) alsophila KUBOKI, sp. nov. (Figs. 1-2)

Pidonia (Mumon) binigrosignata: KUBOKI (nec HAYASHI), 1980, Ent. Rev. Japan, 34: 58, Pl. 3, fig. 9; text figs. 11-12.

Body small, relatively roundish, slightly tapering apicad in male but tumid in female and furnished with pale fulvous pubescence.

Length: 7.4-5.6 mm (male), 6.8-5.0 mm (female); breadth: 2.0-1.5 mm (male), 1.7



Figs. 1–2. *Pidonia (Mumon) alsophila* KUBOKI, sp. nov., from Lienhuachi, Nantou Hsien $(1, \delta^{\gamma})$ and from Techi, Taichung Hsien $(2, \beta)$, central Taiwan.

-1.4 mm (female).

Color: Body reddish yellow to black. Head reddish yellow; mouth parts fulvous except for reddish brown apex of each mandible; eyes black; antennae yellowish brown to black, 1st and 2nd segments yellowish fulvous, 3rd to 6th segments infuscate at their apices and 7th to 11th segments darkened. Prothorax reddish yellow, with apex and base of pronotum narrowly black. Scutellum black. Coxae, trochanters and femora yellowish fulvous; tibiae, tarsi and claws yellowish brown. Elytra yellowish fulvous with black markings, which are almost degenerated leaving the following markings: sutural marking faintly present, latero-basal marking oblong, small, faintly present, and apical marking narrowly present. Ventral surface of head and thoraces reddish fulvous, meso- and metasterna black, and abdomen reddish fulvous.

Head broader across eyes than basal breadth of prothorax (male, 1.07:1) or as broad as basal breadth of prothorax (female); terminal segment of maxillary palpus broadened apically, obliquely truncate at apex, with slightly curved outer margin in male; terminal segment of maxillary palpus club-shaped, gradually broadened in basal two-thirds, then narrowed towards apex, obliquely truncate at apex, with curved outer margin in female; temples small, almost impunctate, shining, gradually narrowed posteriorly with several setae; frons nearly vertical and transverse, covered with coarse punctures, bearing a fine but distinct median longitudinal furrow extending backwards to vertex; vertex fairly convex above, almost impunctate, shining and sparsely clothed with long pubescence; gula shining, very sparsely clothed with long pubescence. Eyes relatively prominent, moderately faceted, shallowly emarginate at middle of internal margins. Antennae relatively long and slender, inserted just behind the level across frontal margins of eyes, slightly longer (male) or slightly shorter (female) than body; apical two segments surpassing elytral apices in male; 1st segment distinctly dilated towards apex, weakly shining and sparsely clothed with fine pubescence; 2nd to 11th segments densely clothed with fine appressed pubescence and sparsely with fine erect pubescence; last segment 5.5 times (male) or 4.2 times (female) as long as wide; the order of each antennal segment in comparative length as follows: male, $5>6>1+2>3 \ge 4$ and female, $5>1+2>3 \ge 6 \ge 4$.

Prothorax longer than basal breadth (male, 1.09:1; female, 1.02:1), shallowly constricted both behind apex and before base and weakly expanded laterally just before the middle; breadth across expanded portions distinctly narrower than base (male, 0.91:1; female, 0.92:1); basal margin weakly bisinuate, obviously broader than apical margin (male, 1.45:1; female, 1.47:1); disc of pronotum convex above, rather shining, finely and closely punctate and sparsely clothed with fine pubescence; posterior lateral setae long; prosternum shining, extremely thinly clothed with short pubescence; meso- and metasterna finely punctate, densely clothed with fine appressed pubescence. Scutellum small and triangular, slightly longer than broad and bearing thin pubescence. Elytra 2.48 times (male) or 2.29 times (female) as long as basal breadth, gradually narrowed posteriad (male) or almost parallel-sided (female) and separately rounded at apices; surface coarsely and deeply punctate, sparsely clothed with suberect pubescence; interspace between the punctures narrower than diameter of each puncture.

Legs relatively slender, finely punctate and clothed with short pubescence; femora clavate, with subappressed pubescence; hind femora not reaching elytral apex in both sexes; tibiae linear, with suberect pubescence; tarsi densely clothed with short pubescence on under surface; 1st segment of metatarsus longer than the following two segments taken together; 3rd segment strongly dilated apically and deeply emarginate at middle of apex.

Abdomen elongate and gradually narrowed towards apex; surface of each sternite densely covered with extremely fine pubescence; in male, apex of last sternite round, apex of last tergite round; in female, apex of last sternite round, apex of last tergite truncate.

Male genitalia: Median lobe long, relatively slender, weakly sclerotized at base, gradually sclerotized towards apex, moderately curved ventrad and acutely pointed at apex; ventral plate of median lobe long; lateral lobes distinctly shorter than median lobe, deeply bilobed at apex; each lobe elongate, relatively slender and gently curved inwards; apex of each lobe round, sparsely furnished with short terminal hairs; endophallus long, thick and furnished with a pair of falcate sclerites; diverticulum long and thick.

Female genitalia: Spermatheca fairly sclerotized, broad and sharply bent at apical third, with round apex; the part continuing to spermathecal duct barrel-shaped with some constrictions; spermathecal gland located at the outer corner; the part continuing to spermathecal gland somewhat swollen; spermathecal duct relatively thick; vagina enlarged basally; valvifer almost parallel-sided; basal segment of coxite gradually narrowed apicad; apical segment of coxite rounded at apex, weakly sclerotized at each inner part and sparsely furnished with sensory pubescence; stylus large, broad, rather heavily sclerotized except for apex and gradually enlarged apicad with sparse and long hairs at terminal area.

Holotype: \mathcal{J} , Lienhuachi, 820 m alt., Nantou Hsien, 16. III. 1978, J. ITO leg. Paratypes: $1\mathcal{J}$, same data as for the holotype; $2 \mathfrak{P} \mathfrak{P}$, Jiuyuetan, 780 m alt., Nantou Hsien, 11. III. 1978, J. ITO leg.; $1\mathfrak{P}$, Hotsu, 1,200 m alt., Nantou Hsien, 3. V. 1978, M. KUBOKI leg.; $1\mathcal{J}$, Sungkang—Meifeng, 1,850 m alt., Nantou Hsien, 28. IV. 1977, J. ITO leg.; $1\mathfrak{P}$, Techi, Taichung Hsien, 30. IV. 1982, N. OHBAYASHI leg.; $1\mathcal{J}$, Mt. Anma Shan, 1,700 m alt., Taichung Hsien, 1. V. 1990, M. KUBOKI leg.



Fig. 3. Map showing the known localities of the *amabilis* group in Taiwan. \checkmark : *P. amabilis* KUBOKI; \Box : *P. alsophila* sp. nov.; \bigcirc : *P. sacrosancta* KUBOKI; \triangle : *P. chienhsingi* KUBOKI. -1, Mt. Pei-ta-wu Shan; 2, Mt. Yu Shan; 3, Mt. Ho-huan Shan; 4, Mt. Nan-hu-ta Shan; 5, Mt. Hsueh Shan; 6, Mt. Ta-pa-chien Shan. Line indicates the contour of 1,500 m in altitude. Cross mark indicates the location of Si-yuan-ya-kou, on the borders between the Chung-yang Mountains and the Hsueh-shan Mountains.

Distribution: Central Taiwan.

Remarks. This new species is closely allied to *Pidonia chienhsingi* KUBOKI, but can be distinguished from the latter by the following key:

 Antennae relatively short; apical one segment surpassing elytral apex in male; surface of elytra closely and finely punctate; ventral plate of median lobe of male genitalia relatively short
 P. chienhsingi KUBOKI
 Antennae relatively long; apical two segments surpassing elytral apex in male; surface of elytra

coarsely and deeply punctate; ventral plate of median lobe of male genitalia relatively long *P. alsophila* sp. nov.

Male habitus, median lobe and lateral lobes of genitalia of *P. alsophila* sp. nov., were illustrated as *P. binigrosignata* by misidentification (KUBOKI, 1980).

Vertical Distribution of the *amabilis* Group in Connection with Vegetational Zonations in Taiwan

The distributions of the *amabilis* group, which composed of *P. amabilis* KUBOKI, *P. alsophila* sp. nov., *P. sacrosancta* KUBOKI and *P. chienhsingi* KUBOKI, are allopatric as shown in Fig. 3. *P. amabilis* occur in an area from the submontane evergreen broad-leaved forest to the lower montane evergreen broad-leaved forest zones in the northern part of the Hsueh-shan Mountain Range (Fig. 4). *P. alsophila* occurs in an area from the submontane evergreen broad-leaved forest to the lower montane evergreen broad-leaved forest in an area from the submontane evergreen broad-leaved forest to the submontane evergreen broad-leaved forest to the lower montane evergreen broad-leaved forest zones in the western side of



Fig. 4. Vertical distribution of the *amabilis* group in Taiwan. \checkmark : *P. amabilis* KUBOKI; \Box : *P. alsophila* sp. nov.; \bigcirc : *P. sacrosancta* KUBOKI; \bigtriangleup : *P. chienhsingi* KUBOKI. – 1, Mt. Pei-ta-wu Shan; 2, Mt. Yu Shan; 3, Mt. Nan-hu-ta Shan; 4, Mt. Hsueh Shan. Cross mark indicates the location of Si-yuan-ya-kou, on the borders between the Chung-yang Mountains and the Hsueh-shan Mountains.

the central Chung-yang Mountain Range and in the southern part of the Hsueh-shan Mountain Range. *P. sacrosancta* occurs in the montane mixed coniferous forest zone in the eastern side of the Chung-yang Mountain Range. *P. chienhsingi* is distributed in an area from the submontane evergreen broad-leaved forest to the lower montane evergreen broad-leaved forest zones in the southern part of the Chung-yang Mountain Range.

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Studies on Staphylinidae from Japan, VI. A New Species and Two New Subgenera of the Genus *Eucibdelus* KRAATZ from Japan.

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Abstract Two new subgenera, *Nudeucibdelus* and *Pareucibdelus* are established in the genus *Eucibdelus* KRAATZ. The former subgenus is based on a new species which is described simultaneously in this paper under the name *Eucibdelus ishigakiensis* sp. nov., and the latter is on *E. japonicus* SHARP. The generic group composed of the genus *Eucibdelus* and its allies are newly defined.

Terminology: Subgena = space between gular suture and infragenal line (the line absent in this group). Subgenal macroseta = macroseta born on subgena. Infragenal line = line lying between postgena and subgena (if absent, a superficial fine distinction present between them). The main terminology and the abbreviations used herein are the same as those explained in HAYASHI (1993).

The genus *Eucibdelus* was established by KRAATZ in 1859 based on *Eucibdelus gracilis* KRAATZ, 1859, and comprises about 25 species from Oriental region to the Far East through Eastern temperate region of Asia. Through the close examination of several species of *Eucibdelus*, I found that they are separated at least into 3 natural groups by the characteristics of chaetotaxy on head and pronotum, female genital segment, metatarsomeres and male genitalia. The characteristics seem to be stable for each group, therefore I establish 3 subgenera for the groups under the name *Eucibdelus* s. str., *Nudeucibdelus* subgen. nov. and *Pareucibdelus* subgen. nov.

On the other hand, the genus *Eucibdelus* and its allied genera have so peculiar common structures in head, mouth organs and prosternum, that they constitute a generic group (*Eucibdelus* group) as newly defined in this paper.

Further I describe a new *Eucibdelus* species from Japan and assign it into the new subgenus, *Nudeucibdelus*. And *Eucibdelus japonicus* SHARP shows some important characters differing from both *Eucibdelus* s. str. and *Nudeucibdelus* subgen. nov., hence I establish a new subgenus *Pareucibdelus* for it.

Nudeucibdelus subgen. nov. is characterized by an especially modified structure of female genital segment, viz. in the new subgenus accessory sclerite is present, and 10th tergite of abdomen consists of 2 pieces and is not triangulate, while in most of staphylinine genera including *Eucibdelus* s. str., 10th tergite of female forms a simple and almost triangulate plate. *Pareucibdelus* subgen. nov. is basically different in the structures of metatarsi, male genitalia and chaetotaxy on the pronotum from *Eucibdelus* s. str.

Before going further details, I wish to express my cordial thanks to Mr. TOSHIRO KISHIMOTO for his kindness of offering many valuable materials, and to Dr. KATSURA MORIMOTO for his





Figs. 1-7: Species of Eucibdelus group. 1, Eucibdelus (s. str.) feae FAUVEL; 2, Eucibdelus (Pareucibdelus) japonicus SHARP; 3, Phytolinus lewisii SHARP; 4, Eucibdelus (Nudeucibdelus) ishigakiensis sp. nov.; 5, Rhyncocheilus pectoralis (SHARP) (Holotype); 6, Leistrophus versicolor PERTY; 7, Philetaerius elegans SHARP.

kindness of critically reading of this manuscript. I am also much indebted to Mr. SHINJI NAGAI for kind presentation of *Leïstrophus versicolor* PERTY, and to Mr. TATEO ITO for kindly offering many materials of *Eucibdelus* Group.

The Characteristics of Eucibdelus Group (Figs. 1-7)

This generic group is characterized by the combination of the following features: Body is clothed generally with conspicuous tomentous pubescence forming hair-streamings here and there. Head has very long postgenae except the genus *Leïstrophus* PERTY which has short postgenae, and has no infragenal lines; eyes are very large and strongly convex; under side of head is sharply carinate along posterior border of mental fossa except *Leïstrophus*, and the carina runs from infra-anterior angles of genae near gular sutures; macrosetae on head are generally underdeveloped, and often some of them are obliterated according to respective genus; terminal seta of galea are absent, and subgenal macrosetae are also absent except *Rhyncocheilus*. Prosternum does not have any paired large erect setae in the middle. Pronotum does not have hypomeral projection. Male genitalia is various in shape, namely, almost symmetrical to asymmetrical in the general appearance, the parameres are deeply bilobed to unilobed with or without peg-setae.

Remarks A conception of this group was first advocated by SHARP in 1889 for the genera *Philetaerius* SHARP, *Trichocosmetes* KRAATZ, *Eucibdelus* KRAATZ, *Phytolinus* SHARP and *Rhynchocheilus* SHARP (=*Rhyncocheilus* FAUVEL). Then the genus *Leïstrophus* PERTY was classified to this group by BERNHAUER and SCHUBERT, 1914. Thereafter any coment on the *Eucibdelus* group has not been published. This group has been placed by the genus *Miobdelus* SHARP in the Staphylinini, but it is necessary to review whether the situation is adequate or not.

Genus Eucibdelus KRAATZ

Eucibdelus KRAATZ, 1859. Arch. Naturg., 25: 70; CAMERON, 1932. Fn. Brit. India, Coleopt. Staphylinidae, III: 217-218; SCHEERPELTZ, 1933. Coleopt. Cat., pars 129, Staphylinidae, VII: 1407; A 1940.
Koleopt. Rdsch., 30: 46; BLACKWELDER, 1952. Bull. U.S. ntna. Mus., 200: 154.
Type-species: Eucibdelus gracilis KRAATZ

Description Third segment of labial palpus glabrous to sparsely pubescent. In the chaetotaxy of the macrosetae on head, genal and front-marginal macrosetae generally hardly discernible, except that in the subgenus *Pareucibdelus* nov. the front-marginal macrosetae present and the infraorbital ones absent; occipital macrosetae situated much more anteriorly, at about inner-anterior portion of postgenal macrosetae. Chaetotaxy of pronotum consisting of 3 or 4 conspicuous macrosetae characteristic to each subgenus. Meso- and metatibiae without any spines except terminal ones but at most with 2 or 3 fine spinous long setae underneath and/or laterally. Parameres of male genitalia mostly with peg-setae on inner surface.

Remarks The present genus is readily distinguishable from *Trichocosmetes* and *Philetaerius* by the absence of distinct spines on meso- and metatibiae, and from *Phytolinus* by

the structure of the protarsi, of which the 5th segment is long and extends markedly beyond the 4th segment, while in the latter, each of basal 4 segments much more strongly dilated, the 5th segment very short, invaginated wholly in dorsum of 4th and claws only extending beyond 4th. Fourth segment of maxillary palpus is glabrous in the present genus but very sparsely and distinctly pubescent in *Rhyncocheilus*.

Key to the Subgenera of the Genus Eucibdelus

Subgenus Eucibdelus KRAATZ

(Figs. 1, 8-11)

Type-species: Eucibdelus gracilis KRAATZ



Eigs. 8-10: *Eucibdelus feae* FAUVEL, \mathcal{S} ; fig. 11: *Eucibdelus* sp., \mathcal{P} ; 8, head and pronotum with macrosetal chaetotaxy; 9, pronotum in lateral view; 10, metatarsus; 11, female 10th tergite. (al=antero-lateral; am=anteromarginal; io=infra-orbital; lb=latero-basal; ml=mid-lateral; o=occipital; pg=post-genal; sa=supra-anntennal; so=supraorbital.

Description: In the macrosetae on head (Fig. 8), genal and front marginal macrosetae reduced, inperceptible. Chaetotaxy of pronotum (Figs. 8, 9) consisting of 4 macrosetae, viz. antero-marginal, antero-lateral, mid-lateral and latero-basal macrosetae; 1st segment of the metatarsus (Fig. 10) distinctly shorter than the following 2 segments combined; parameres of the male genitalia unilobed and with peg-setae on inner side of apex; in the female the 10th (Fig. 11) tergite not separated but coadunate in a triangular plate.

Subgenus Pareucibdelus nov. (Figs.2, 12-15)

Type-species: Eucibdelus japonicus SHARP

Description: In the chaetotaxy of head (Fig. 12), infraorbital and genal macrosetae reduced, in perceptible, but front-marginal ones present. Chaetotaxy of the pronotum (Figs. 12, 13) consisting of 3 pairs of macrosetae, namely, antero-marginal, antero-lateral and latero-basal macrosetae; 1st segment of metatarsus (Fig. 14) as long as or slightly longer than the following 2 segments combined; parameres of male genitalia unilobed, nearly truncate at apex and without peg-setae on inside of apex; 10th abdominal tergite of female coadunate and triangular as usual, but the base is a little prolonged laterally and somewhat modified.



Figs. 12-15. *Eucibdelus japonicus* SHARP: 12, fore body with macrosetal chaetotaxy; 13, pronotum with macrosetal chaetotaxy; 14, left hind tarsus; 15, male genitalia in dorsal view. (fm=front marginal)

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Notes In *E. japonicus* SHARP, each front corner of the pronotum has a flat, conspicuous and strongly protrudent tubercle, but the tubercles in other species of *Pareucibdelus* are not always present; the parameres of male genitalia (Fig. 15) are rather short, reaching about at apical half of penis, coadunate throughout with penis and without peg-seta; the meso- and metatibiae each has 2 or 3 thin, long and spinous setae below.

Subgenus Nudeucibdelus nov.

Type species: Eucibdelus (Nudeucibdelus) ishigakiensis sp. nov.

Description: Pronotum with chaetotaxy composed of 3 pairs of macrosetae; 10th tergite of the female distinctly separated into 2 parts, the basal part forming a very long, narrow and strongly arcuate band and the hind one taking a form of transversely oblong-oval plate, which is strongly bending ventrad; pubescence on the body inconspicuous, very short, soft and not forming conspicuous hair-streaming.

Notes The third segment of labial palpi in E. ishigakiensis sp. nov. is glabrous.

Eucibdelus (Nudeucibdelus) ishigakiensis sp. nov. (Figs. 3, 16-38)

Body slender, elongate, covered rather sparsely with yellowish, fine and recumbent short pubescence and moderately shiny; brown to dark reddish brown, head dark brown to blackish brown dorsally; mandibles yellow and with apices and teeth pitchy; frons, postgenae and basal 3 or 4 segments of antenna light brown, 7th to basal half of 11th segments dark brown; pronotum obscurely darkened here and there, with rather sparse pubescence; scutellum dark brown, pale at margins, with dense suberect pubescence except for marginal areas; elytra brown, with obscure patches of pale yellowish short pubescence at shoulder, in middle parts of lateral sides and on postero-lateral corner; abdomen bearing a pair of dark brownish obscure patches in the middle of 3rd to 7th tergites, pale brown at sides, the patches enclosed in the center of hair-streaming of pale yellow pubescence, and 8th segment yellowish brown; legs pale yellow. Length: 12.6-13.4 mm.

Male: Head (Figs. 16, 18) suboval, distinctly narrowed posteriad, widely rounded at posterior angles, nearly straight at base, gently convex above, slightly longer than wide (33.0 : 31.0), much wider and a little longer than pronotum (31.0 : 23.0 and 33.0 : 30.0); upper surface rather flattened, faintly convex medially in frontal area, with a small suboval plaque just before vertex, roughly, densely and rugosely punctured, the punctures more or less umbilicate, cupped in parts and irregular in size and without microsculpture except for opaque postgenae; chaetotaxy of macrosetae rather peculiar, genal and subgenal setae absent, front marginal one underdeveloped, occipital one placed rather anteriorly, a little before postgenal one; subgenae (under side of head) rather opaque, somewhat roughened, sparsely and shallowly punctured, with fine microsculpture, without macrosetae, the punctures ill-defined, large and umbilicate, interstices slightly narrower than the diameter of puncture, and infragenal lines absent. Eyes very large, strongly prominent laterad and a little shorter than postgenae. Antennae (fig. 17) long and slen-

der, not serrate, weakly thickened apicad, thickest at 10th segment, extending a little beyond elytral humeri; 1st to 4th segments polished but 4th weakly so; 1st to 8th segments and 11th more or less longer than wide, 9th nearly as long as wide, 10th slightly wider than long (7.5 : 7.0); 3rd a little longer than 2nd, 8th to 10th subtrapezoidal, a little asymmetrical, 11th subfusiform, conical in apical half, slightly shorter than the preceding 2 segments combined together (12.0 : 14.0), and each segment with the following relative length: 18.0 : 11.0 : 13 .0 : 8.0 : 7.5 : 7.5 : 7.5 : 7.0 : 7.0 : 7.0 : 12.0.

Labrum (Fig. 20) not long, a little shorter than one-fifth time as long as head, deeply bilobed, each lobe subtrapezoidal, bearing 4 or 5 underdeveloped long setae.

Mandibles (Figs. 21, 22) rather thick, moderately long, a little shorter than a half length of head; left mandible with a large subquadrate sharp tooth at about the middle; right one bearing a large sharp triangulate tooth at about the middle.

Maxillary palpi (Fig. 23) elongate; 1st segment very short, strongly geniculate and with a very fine short seta at apex; 2nd long, feebly arcuate, gently thickened apicad and bearing a few moderately long setae at apex; 3rd slightly curved near base, strongly thickened apicad, a little shorter and thicker than 2nd, with a few fine setae of various length at base and apex; 4th elon-



Figs. 16-19, *Eucibdelus ishigakiensis* sp. nov.; 16, fore body, withmacrosetal and setal chaetotaxy; 17, left antenna; 18, under view of head; 19, under view of prothorax. (h=humeral; ill=inferior lateral line; ims=inner-mid setae; io=infra-orbital; ml=mid-lateral; pl=post-lateral; ps=parascutellar; pst=prosternum; sll=superior lateral line)



Figs. 20-24, *Eucibdelus ishigakiensis* sp. nov.; 20, labrum (pubescence removed in left half, and setae removed in right half); 21, left mandible; 22, right mandible; 23, right maxilla; 24, labium. (m=mentum)

gate, subfusiform, nearly as long as and as thick as 2nd, truncate at the tip and without any hairs. Lacinia wide, densely pubescent and clothed with erect fine setae at base. Galea thickened apicad, densely pubescent on distal lobe, without distinct terminal setae at apex of proximal sclerite.

Labial palpi (Fig. 24) elongate; 1st segment straight, much longer than wide, slightly thickened apicad, with a few fine setae at base, middle and apex; 2nd nearly straight, gently thickened apicad, much longer than wide, nearly as long as and as thick as 1st, bearing a few fine setae at base and several long setae at apex; 3rd subfusiform, glabrous, slightly longer than and nearly as thick as 1st and truncate at apex.

Ligula (Fig. 24) rather short, deeply excised, with 2 fine setae at each half. Paraglossae (Fig. 24) rather wide and long, much longer than ligula and combed by dense seta-like hairs at the inner margin and ciliate dorsally. Prementum subpentagonal, short and finely impressed medially. Mentum (Fig. 24) very short and strongly transverse, shallowly depressed, membraneous at lateral sides and with an inconspicuous thin hair at each lateral corner. Gular plate (Fig.18) gently constricted, very narrow in middle area as an impressed line, a little widened in front and behind, front part roughly reticulate and hind part somewhat uneven.

Paired dorsal incisions of hind margin of neck (Fig. 18) very shallow.

Pronotum (Fig. 16, 19) narrow, nearly barrel-shaped, widest at anterior third, much longer than wide (30.0 : 23.0), much narrower and a little shorter than head (23.0 : 31.0 & 30.0 : 33.0), more strongly and straightly narrowed in front than behind; lateral margins feebly emarginate in each hind half; front angles obtuse, and front corners slightly convex behind each angle, not

tuberculate; front margin feebly emarginate, hind margin gently and uniformly arcuate; hind angles simply rounded; disc narrowly and weakly ridged medially in the full length, obscurely de-pressed laterally behind front angles and at about each middle, the ridge more strongly convex just before base; surface less densely punctured than on head, the punctures umbilicate and scattered among fine and clear transverse rugae; chaetotaxy composed of well developed 3 pairs of macrosetae, namely, front marginal, antero-lateral and latero-basal macroseta, and mid-lateral one entirely reduced, the setae widely distant from discal margin; superior lateral line visible only in hind third in dorsal view, united with inferior lateral line at a little before the middle, the united line bounded with anterior half of lateral border of prosternum just behind front angle of pronotum, then shifting to front margin.

Scutellum triangular, shallowly depressed in middle, blunt at tip, very densely covered with remarkably calyciform and umbilicate punctures except for marginal parts; prescutum smooth and fully developed.

Elytra (Fig. 16) gently dilated behind, feebly arcuate at sides, widest at hind two-thirds, and feebly emarginate at apex; surface rather flattened in middle, faintly depressed along suture, coarsely, roughly and rather closely punctured, and with weak and rugose microsculpture, the punctures very shallow, obscurely defined and umbilicate, and pubescence rather short, apparently sparse, recumbent; sutural area weakly convex and obscurely defined. Macrosetae rather underdeveloped, thin and not long; humeral, mid-lateral and postero-lateral macrosetae well recognized (in the latter two macrosetae each accompanied with a long seta on elytral epipleuron); parascutellar macroseta reduced, hardly discernible; a few long setae of various length scattered inner-mid area but variable in number. Wings fully developed, wide and long.

Prosternum (Fig. 19) long, rather flattened, gently convex medially, deeply depressed in posterior half of both sides, median ridge short and not sharp; apex of prosternal process very elongate, erect vertically and acute at tip; furcasternum (Fig. 19) narrow and long, strongly raised and ridged medially, the ridge not sharp. Mesosternum (Fig. 25) feebly convex, very sparsely and roughly punctured with long scanty recumbent pubescence.

Abdomen elongate, nearly parallel-sided, shallowly depressed basally on both sides of the middle in 3rd to 7th tergites, minutely asperate-punctate, lineo-reticulately microsculptured, the depressions infuscate with dark pubescence, the punctures rather dense on tergites but much sparser on sternite, smaller and sparser on each basal side; each sternite bearing a few remarkable black setae near lateral margins, and each tergite with a transverse row of 4 erect black setae on hind area; 8th tergite (Fig. 26) a little protuberant at the middle of hind margin and rounded at apex; 8th sternite (Fig. 28) widely and rather deeply emarginate at apex, subtriangularly and smoothly flattened just before the emargination; 9th sternite (Fig. 29) subfusiform, roundly emarginate at apex; 10th tergite (Fig. 27) gently arcuate at apex.

Male genitalia (Figs. 32-34) slightly asymmetrical and twisted to the left, elongate, gradually narrowed apicad, somewhat tumid in apical third and gently curved ventrad; penis subcylindrical, obliquely truncate at apex in ventral view; parameres narrow, faintly dilated apicad from the middle, bilobed at apex by rather deep and round emargination, completely confluent with penis in basal half and not extending beyond penis, each lobe rounded at the tip and bearing numerous peg-setae in inner side (=dorsal side).

Legs long and slender; protibiae (Fig. 30) rather slender, subclavate, slightly thickened apicad, not spatulate, without any spines except terminal ones, somewhat curved inside, very



Figs. 25-38, *Eucibdelus ishigakiensis* sp. nov.; 25, mesosternum; 26, male 8th tergite, with setae; 27, male 10th tergite, with pubescence; 28, male 8th sternite, with setae; 29, male 9th sternite, with pubescence; 30, protibia and protarsi; 31, male metatarsus; 32, male genitalia in ventral view; 33, ditto, left lateral view; 34, inner surface of paramere, with peg setae; 35, female 8th tergite; 36, female 8th sternite; 37, female 10th tergite; 38, gonocoxcite of female genital segemnt.

feebly emarginate at lateral side near apex, the apex a little narrower than protarsus; protarsi (Fig. 30) with basal 4 segments strongly dilated, sparsely and minutely asperate-punctate dorsally, with scanty pubescence, each segment clothed with long argyle-like pale setae at outer margin and very densely pubescent ventrally with modified hairs; 5th segment moderately long, flattened above and weakly dilated apically; claws moderate in length, strongly curved, empodial setae paired, thin, short, about a half as long as a claw. Mesotibia bearing 3 thin long setae at lateral side and 2 ones on the under side near apex. Metatibia bearing 2 or 3 thin long setae below; metatarsus (Fig. 31) with 1st segment rather short, distinctly shorter than the following 2 segments combined, slightly shorter than 5th and densely pubescent beneath but the integment visible.

Female: 8th tergite (Fig. 35) widely and distinctly protuberant posteriad, posterior margin nearly truncate at apex and feebly emarginate at sides; posterior margin of 8th sternite (Fig. 36) nearly straight or sometimes slightly bisinuate; genital segment with weakly sclerotized accessory sclerite, 2nd gonocoxite (Fig. 38) without setae, minute stylus very short and slender, almost impacted in 2nd gonocoxite, bearing 2 setae at the tip, one of them very long and stout, the another thin and short; 10th tergite (Fig. 37) separated by distinct border line into 2 parts, namely, basal piece and apical plate, the basal piece forming very long, arcuate and slender band, and the apical plate oblong-oval, flattened and minutely punctured; in other respects female well similar to male.

Holotype: \mathcal{J} , Mt. Omoto, Is. Ishigakijima, Ryûkyû IIs., 29. II. 1992 S. NIRASAWA leg. (In coll. Tokyo University of Agriculture). Paratype: $33 \mathcal{J} \mathcal{J}$, $4 \mathcal{P} \mathcal{P}$, same date as the holotype; $16 \mathcal{J} \mathcal{J}$, $9 \mathcal{P} \mathcal{P}$, same locality as the holotype, 13. III. 1993, K. MATSUMOTO leg.; $1 \mathcal{J}$, $1 \mathcal{P}$, same locality as the holotype, 27. III. 1984, H. MIYATA leg.; $1 \mathcal{P}$, same locality as the holotype, 20. III. 1991, Y. OKUSHIMA leg.; $1 \mathcal{J}$, Urasoko, Is. Ishigakijima, 17. III. 1991, M. WADA & Y. OKUSHIMA leg.; $1 \mathcal{J}$, Mt. Bannadake, Is. Ishigaki, 10. IV. 1990, Y. HANATANI leg.; $2 \mathcal{P} \mathcal{P}$, Takeda Rindo, 9. III. 1991, Y. OKUSHIMA leg.

Remarks The present species is very similar in general appearance to *E. sauteri* BERN-HAUER from Taiwan, but is easily distinguishable from the latter in the following points: in the present species the body colour much darker, without aeneous lustre, 10th antennal segment less transverse, only slightly wider than long (7.5 : 7.0), and 11th longer, only slightly shorter than the preceding 2 segments combined together (12.0 : 14.0), while in the latter species body light reddish brown, with aeneous lustre, 10th antennal segment strongly transverse, and 11th one much shorter than the preceding 2 segments combined together.

A List of Species of the Eucibdelus Group in Japan

Philetaerius elegans SHARP

Philetaerius elegans SHARP, 1889. Ann. Mag. nat. Hist., 6 (III): 119.

Distribution: Japan (Honshu, Kyushu)

Eucibdelus (Nudeucibdelus) ishigakiensis sp. nov.

Distribution: Japan (Is. Ishigakijima)

Eucibdelus (Pareucibdelus) japonicus SHARP

Eucibdelus japonicus SHARP, 1874. Trans. ent. Soc. London, 1874: 29. Eucibdelus aokii DVOŘAK, 1956. Bull. Soc. ent. Mulhouse: 30-32. Syn. nov. Eucibdelus chujoi DVOŘAK, 1956. Bull. Soc. ent. Mulhouse: 32-33. Syn. nov.

Eucibdelus verae DVOŘAK, 1956. Bull. Soc. ent. Mulhouse: 33. Syn. nov.

Distribution: Japan (Honshu, Shikoku, Kyushu, Is. Awashima)

Notes The specimens examined from the Southern most of Kyushu to the Northern most of Honshu are very variable in general appearance (size, colour, proportion, etc.), but the male genitalia is very stable.

Phytolinus lewisii SHARP

Phytolinus lewisii SHARP, 1889. Ann. Mag. nat. Hist., 6 (III): 121.

Eucibdelus tsuguriensis DVOŘAK, 1956. Bull. Soc. ent. Mulhouse: 30. Syn. nov.

Distribution: Japan (Honshu, Shikoku)

Phytolinus monticola NAOMI

Phytolinus monticola NAOMI, 1984. Kontyu, Tokyo, 52 (3): 386-387.

Distribution: Japan (Hoshu)

Phytolinus variegatus SAWADA et NAKANE

Phytolinus variegatus SAWADA et NAKANE, 1954. Trans. Shikoku ent. Soc., 4: 8. Distribution: Japan (Honshu, Shikoku and Kyushu)

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New Record of Staphylinidae from Taiwan, 2.

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In this paper, I report 3 *Philonthus* species from Taiwan which are known from North India, Himalayan region and Myanmar up to present, and I wish to express my sincere gratitude to Dr. KIMIO MASUMOTO, Otsuma Women's University, Tokyo, for his kind presentation of many interesting Staphylinidae of Thailand.

Philonthus maindroni FAUVEL

Philonthus maindroni FAUVEL, 1903, Rev. d'Ent., XXII: 158.

Philonthus annandalei CAMERON, 1924, Rec. Ind. Mus., XXVI: 118.

Specimen examined: 1 7, Funchiifo, Formosa, 1. V. 1983, T. ITO leg.

Distribution: India (Dehra-Dun-, Mussoori- and Chakrata District, Assam, Nilgiri-Hills); Myanmar; Himalaya (Nepal?); Taiwan (New record)

Philonthus explorator CAMERON

Philonthus explorator CAMERON, 1932, Fn. Brit. India., Col. Staph. III: 104.

Specimens examined: $2 \Im \Im$, Roshan, Formosa, 23. IX. 1970 and Mt. Yangming, Formosa, 15. IX. 1970, Y. KIYOYAMA leg.; $2 \Uparrow \Uparrow$, Kenting Park, Formosa, Y. MAEDA and T. KOBAYASHI leg.; $1 \Uparrow$, Doi Suthep, Chiang Mai, Thailand, 6. IV. 1991, Y. MANIT leg.; $1 \Im$, Doi Tong, Chiang Rai, Thailand, 13. X. 1992, Y. MANIT leg.; $1 \Im$, Wiang Papao, Chiang Rai, Thailand, 1-2. I. 1991, K. MASUMOTO leg.

Distribution: India (Nilgiri Hills); Nepal; Thai (New Record); Taiwan (New Record)

Philonthus foetidus CAMERON

Philonthus foetidus CAMERON, 1932, Fn. Brit. Ind., Col. Staph. III: 129.

Specimens examined: 1 \mathcal{J} , Funchiifo, Formosa, 3. VI. 1970, Y. KIYOYAMA leg.; 1 \mathcal{J} , 1 $\stackrel{\circ}{+}$, Sungkang, Formosa, 4 and 6. VIII. 1969, Y. MAEDA and T. KOBAYASHI leg.; 1 \mathcal{J} , Meifeng, Formosa, 18. VI. 1980, M. YAMAMOTO leg.; 1 $\stackrel{\circ}{+}$, Ghorapani (alt. 2835 m), Nepal, 14. X. 1979, Y. HAMA leg.; 2 \mathcal{J} \mathcal{J} , 1 $\stackrel{\circ}{+}$, Doi Inthanon, Chiang Mai, Thailand, 19. IV. 1992, Y. MANIT leg.

Distribution: India (Simla-Hills, Chakrata-district, Assam); Nepal; Myanmar; Thai (New Record); Taiwan (New Record)

Two New Species of the Genus *Oxycentrus* from Vietnam (Coleoptera, Carabidae, Harpalini)

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Abstract Two new species of the genus *Oxycentrus* CHAUDOIR are described under the names of *O*. (*Oxycentrus*) *fulgens* and *O*. (*O*.) *subarcuaticollis* from Vietnam.

Introduction

Up to the present two species of the genus *Oxycentrus* CHAUDOIR have been known from Vietnam. Recently I was able to examine some specimens of the genus through the courtesy of Dr. DAVID W. WRASE in Berlin and found two new species in them.

In this paper, I am going to describe two new species of the subgenus *Oxycentrus* of the genus *Oxycentrus* CHAUDOIR, *Oxycentrus fulgens* and *O. subarcuaticollis* from Vietnam. Those species are very similar to each other, but are quite different in the characteristics of the aedeagi as mentioned in the descriptions. They are also easily distinguished from the other species of the subgenus by the pronotum relatively arcuate at sides and rounded at basal angles. Those are sympatric to each other, at least, in the locality.

I wish to express my deep gratitude to Dr. DAVID W. WRASE, Berlin, for his kindness on offering me the interesting materials. Also I cordially thank Mr. TAICHI SHIBATA, Nishinomiya, for his continuous guidance on my taxonomic study.

Oxycentrus (s. str.) fulgens N. ITO, sp. nov. (Figs. 1, 3 & 4)

Body oblong-elongate, more or less similar to the species of the subgenus *Tenuistilus* HABU (1978) of the genus *Coleolissus* BATES (1892), a little wider than as usual, convex, pitchy black, very shiny, iridescent on elytra; antennae and legs reddish brown, palpi light reddish brown, labrum and mandibles dark brown.

Head narrow, about three-fifths the width of pronotum (0.58-0.62 in ratio), uniformly and gently convex, very sparsely and minutely punctate; labrum transversely trapezoidal, truncate at apex; clypeus not rugose, semicircularly swollen, depressed along apex; clypeal suture straight and clear to rather obscure; frontal impressions not strongly and evenly deep, reaching supraorbital grooves; eyes more or less small, hemispherically prominent; temples thin and short,

steeply contracted posteriorly, and sharply meeting with neck constriction; genine ventral margin of eye adjoining buccal fissure; mandibles not well produced forwards, gently curved at apices, both tenebral and retinacular teeth of left mandible weakly and bluntly produced, terebral tooth of right one rectangularly or more sharply prominent; antennae slender, rather long, reaching basal seventh of elytra, 3rd segment pubescent in apical seven-tenths, almost as long as the 4th and seven-tenths longer than the 2nd; 3rd segment of labial palpus comparatively tumid, less pubescent than in *Oxycentrus* (s. str.) *argutoroides* (BATES), as long as the 2nd; ligula parallel-sided, rather deeply notched at middle of apex; paraglossae narrow, fully produced forwards beyond ligula, fused with it up to near its apex; median tooth of ligula regular-triangularly prominent, epilobes well expanded apicad; microsculpture invisible or rarely and vaguely detectable as transverse meshes in part.

Pronotum subquadrate, widest at apical two-fifths, one-fifth wider than long, well convex uniformly, mostly smooth, punctate only in lateral furrows and basal foveae, the punctures not coarse and sparse to moderate in density; sides arcuate throughout or sublinearly oblique in basal three-fifths, gently convergent forwards and weakly so backwards from the widest point; apex slightly emarginate, bordered lengthwise; base one-third to two-fourths wider than the apex, hardly arcuate or bisinuate, with fine and entire border; apical angles not protrudent, wide-ly arcuate; basal angles larger than rectangle, narrowly rounded; lateral furrows narrow near apex, gradually widened posteriorly, and linked with basal foveae which are more or less large, not deepened and only flattened; front transverse impression absent or very shallowly engraved, hind one vague; microsculpture partly visible, observable as short and obscure transverse lines, somewhat clearer in $\hat{\gamma}$.

Elytra oblong, parallel or hardly arcuate at sides, about three-fifths longer than wide, gently raised on disc, steeply declivous laterad, without punctures; sides weakly arcuate at humeri, somewhat deeply sinuate before apices; apices weakly produced behind, narrowly separated



Figs.1-2 Habitus of Oxycentrus spp.; 1, Oxycentrus (s. str.) fulgens N. Ito, sp. nov.; 2, Oxycentrus (s. str.) subarcuaticollis N. Ito, sp. nov.

from each other, blunt at sutural angles; bases very weakly emarginate, humeral angles angulate and much larger than rectangle, minutely toothed at tips; striae deep and wide, clearly crenulate, suctellar striole short; intervals rather convex on disc, gradually becoming more convex apicad, 3rd interval with two or three setiferous pores in apical two-fifths along 2nd stria; marginal series widely interrupted in middle, composed of (8-9) + (10-11) umbilicate pores; microsculpture sparsely visible, composed of fine transverse lines. Hind wings fully developed.

Ventral surface mostly smooth, sparsely punctate laterally on meso- and metasterna, with very short and sparse pubecsence medially on 2nd and 3rd abdominal segments; metepisternum relatively contracted behind, a little less than one and a half as long as wide; 6th segmant bisetose at each side in both sexes, almost truncate in \Im and clearly arcuate in \Im at apex.

Hind femora bisetose along hind margin; fore tibiae not strongly dilated apicad, incised in external half of apex, trispinose apico-externally, finely and clearly sulcate, terminal spur short and lanceolate; fore and mid tarsi in \mathcal{J} narrower than usual, mid tarsus in \mathcal{J} biseriately squamous ventrally in 2nd to 4th segments, hind tarsus in \mathcal{J} almost as long as and in \mathfrak{P} a little



Figs. 3-6 Genitalia of *Oxycentrus* spp. 3, 4, *O*. (s. str.) *fulgens* N. ITO, sp. nov.; 5, 6, *O*. (s. str.) *subarcuaticollis* N. ITO, sp. nov.; 3, 5, male genitalia; 4, 6, female genitalia; a, dorsal view; b, lateral view; c, ventral view.

shorter than the width of head including eyes, 1st segment equal in length to the 2nd and 3rd combined, 3rd one-fourth shorter than the 2nd and a half longer than the 4th, claw segment bise-tose along each ventral margin.

Aedeagus (Fig. 3) relatively thick, gently arcuate, minutely reflected dorsally at apex; apical orifice widely open, weakly directed to the left, inner sac bearing two groups of many microtrichia near basal bulb along left and right sides, respectively, and armed with two scleritesgroups, each composed of three conical sclerites; apical lobe spatulate, wider than long. Stylus (Fig. 4) slender, gently curved, bearing a long seta at apical third and a rather long spine at ventro-external margin; basal segment with thick two setae apico-externally; valvifer uni- to trisetose at apex.

Length: 9.0-10.0 mm. Width: 3.2-3.7 mm.

Holotype: \mathcal{J} , Nam Cat Tie nature park, Vietnam, 1-15. V. 1994, ZACHARDA leg. (preserved in WRASE coll., Berlin). Paratypes: $5 \mathcal{J} \mathcal{J}$, $5 \mathcal{P} \mathcal{P}$, same data as the holotype.

This new species is similar to *Oxycentrus* (s. str.) *quadricollis* N. ITO (1994), but is different from the latter by the pronotum not angulate at basal angles, the fore tibiae less dilated, and the fore and mid tarsi distinctly narrwer.

In comparison with *Oxycentrus* (s. str.) *siamensis* N. ITO (1994), the new species has the frontal impressions shallower, the basal angles of pronotum not angulate, and the elytra narrower and not arcuate at sides.

Also the species is easily distinguished from *Oxycentrus* (s. str.) *giganteus* N. ITO (1996), by the pronotum less strongly contracted behind, more widely rounded and with median line obviously shallower, the elytra wider, and the fore tibiae bispinous apico-externally instead of being plurispinous.

Oxycentrus (s. str.) *subarcuaticollis* N.ITO, sp. nov. (Figs. 2, 5 & 6)

This new species is closely allied to the preceding new species, but is distingushed from the latter by the body slightly aeneous-tinged on pronotum and elytra instead of being purely black, the eyes not hemispherically prominent, the pronotum more widely rounded at basal angles and entirely arcuate at sides, the elytra less convex, the fore tarsi a little more strongly dilated, but not so in *O*. (*O*.) quadricollis, and the aedeagus larger and without any sclerites on inner sac.

Head somewhat wider, a little less than two-thirds as wide as the pronotal width (0.63-0.65 in ratio), gently convex; clypeal suture fine and shallow; frontal impressions not deep, reduced near supraorbital grooves; temples gently contracted behind, obtusely meeting with neck constriction. Pronotum more or less wide, about three-tenths wider than long (1.27-1.35 in ratio); apex shallowly emarginate, straight in middle; base one-fifth wider than apex. Elytra gently and evenly elevated, about three-fifths longer than wide; 3rd interval with a row of 3-4 setiferous pores in apical half; marginal series interrupted medially, (9-10) + 12 umbilicate pores. Hind wings entire. Abdomen with 6th segment bisetose at each side in both sexes. Aedeagus (Fig. 5) more or less thin, gently curved, hooked ventrally at apex; apical lobe small and rounded at distal margin; apical orifice widely open, not armed with any sclerites. Stylus (Fig. 6) gently curved; basal segment with three thick setae apico-externally; valvifer bisetose at apex and unisetose ante-apically.

Length: 9.6-10.3 mm. Width: 3.6-3.8 mm.

Holotype: \mathcal{F} , Nam Cat Tie nature park, Vietnam, 1-15. V. 1994, ZACHARDA leg. (preserved in WRASE coll., Berlin). Paratypes: $2\mathcal{F}\mathcal{F}$, 1° , same data as the holotype.

Those two new species are sympatrical to each other, at least, in the locality, but detailed condition of each habitat is not clear. They are closely allied to each other, but the aedeagi are quite different in the structure from each other and therefore they must be isolated by the difference.

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Two New Species of the Genus *Trichotichnus* from Mt. Doi Inthanon in North Thailand (Coleoptera, Carabidae, Harpalini)

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Abstract Two new species of the genus *Trichotichnus* are described from Mt. Doi Inthanon in Thailand under the names of T. (s. str.) *baehri* and T. (s. str.) *doiinthanonensis*. Those are very similar to each other in the general appearance, but each aedeagus has the quite different characteristics.

Introduction

In this paper I am going to describe two new species of the subgenus *Trichotichnus* of the genus *Trichotichnus* MORAWITZ, from Mt. Doi Inthanon in Thailand, under the name, T. (s. str.) *baehri* sp. nov. and T. (s. str.) *doiinthanonensis* sp. nov. Those are very closely allied to each other in the external characteristics, but the aedeagi are quite different in the structures.

I cordially thank Dr. MARTIN BAEHR of the Zoologische Staatssammlung, München, for his kind offering of numerous materials for my study. The specific name of *T. baehr*i is dedicated to him. My thanks are also due to Mr. TAICHI SHIBATA, Nishinomiya, for his kind guidance on my study.



Fig. 1 Habitus of *Trichotichnus* (s. str.) *baehri* N.ITO, sp. nov.

Trichotichnus (s. str.) *baehri* N. ITO sp. nov. (Figs. 1-3)

Body more or less widely oblong, flattened, black or slightly brownish black, weakly iridescent on elytra; palpi, antennae and tarsi light brown, tibiae and femora light reddish brown, labrum, mandibles and lateral margins of pronotum brown.

Head wide, about seven-tenths the width of pronotum (0.69-0.72 in ratio), gently and uniformly convex, very sparsely and microscopically punctate; labrum subtrapezoidal, with rounded apical corners; clypeus rather thick, shallowly emarginate at apex, hardly with transverse depression; clypeal suture vague and shallow throughout; frontal impressions finely and clearly carved, reaching supraorbital grooves; eyes large and gently convex; temple short, one-



Figs. 2-3 Genitalia of *Trichotichnus* (s. str.) *baehri* N.ITO, sp. nov. 2, Male genitalia; 3, Female genitalia; a, dorsal view; b, lateral view; c, ventral view.

fifth the length of eye, gently sloping posteriorly and obtusely conjoined with neck constriction; genuine ventral margin of eye narrowly separated from buccal fissure; mandibles short and thick, left mandible blunt and not prominent laterally at terebral tooth and triangularly produced at retinacular tooth, right mandible bearing hardly produced terebral tooth and widely triangular retinacular tooth; antennae slender and reaching basal sixth of elytra, 3rd segment rather dilated apicad, pubescent in apical three-fifths, a little shorter than the 4th (0.91-0.93 in ratio) and twice as long as the 2nd; labial palpi more or less tumid, 2nd segment setose along hind margin as well as fore margin, one-eighth shorter than the 3rd; ligula abruptly expanded distad a little behind apex which is truncate; paraglossae not prolonged ahead beyond ligula, fused with ligula up to behind its expansion; mentum rather strongly and narrowly prominent at median tooth, epilobes weakly widened forwards; submentum unisetose at each side; microsculpture vague, partly observable as fine transverse meshes.

Pronotum transversely quadrate, a little more than one and a half as wide as long (1.50-1.55 in ratio), gently rounded in front and hardly arcuately contracted posteriorly from the widest point at apical two-fifths, flattened widely on disc, gently declivous apico-laterad; apex rather deeply emarginate, subtruncate at the bottom; base one-fifth to one-fourth wider than the apex, almost straight; all margins entirely bordered; apical angles well protrudent and widely rounded; basal angles fairly larger than rectangle, angularly rounded, and not protuberant at tips; lateral furrows narrow in apical two-fifths, thence gradually widened posteriorly and linked with basal foveae, which are wide and only flattened, and extend lateral borders; front transverse impression short and shallow, the hind one shallower; median line finely engraved, laying between both the impressions; surface smooth or very finely and sparsely punctate on disc, finely so in apical and apico-lateral portions, and somewhat coarsely so in basal portion; microsculpture mostly invisible, detected as vague transverse meshes in basal foveae.

Elytra widely oblong, a half longer than wide (1.48-1.55 in ratio), parallel-sided, flat on disc, somewhat steeply sloping laterally and apically, without punctures; sides gently arcuate at humeri, with apical sinus comparatively deep; apices more or less produced, not arcuate at outer margins, adjoining to each other, acute at tips; bases each weakly emarginate, forming an obtuse angle with the side; striae fine and shallow, becoming a little wider and deeper apicad, scutellar striole moderate in length; intervals not or weakly convex, a setiferous pore of 3rd interval nearly at apical two-fifths; marginal series interrupted in middle, consisting of (8-10) + (11+13) umbilicate pores; microsculpture invisible or hardly visible as transverse lines. Hind wings fully developed.

Ventral surface largely smooth, furnished with several sparse punctures on meso- and metepisterna and laterally on metasternum, with very sparse short pubescence medially on metasternum and 2nd and 3rd abdominal segment; metepisternum more or less contracted behind, about twice as long as wide; 6th abdominal segment unisetose in \mathcal{J} and bisetose in \mathcal{P} at each side, truncate or feebly emarginate in \mathcal{J} and gently arcuate in \mathcal{P} at apical margin.

Hind femora bi- or trisetose along hind margin; fore tibia fairly dilated distad, not sulcate dorsally, trispinose apico-externally, shallowly incised in external half of apex, terminal spur short and robust; 1st segment of mid tarsus in \mathcal{J} bearing adhesive squamae only near apex, hind tarsus in \mathcal{J} one-eleventh and in \mathcal{P} one-seventh shorter than the width of head including eyes, 1st segment as long as the 2nd and 3rd combined, 2nd one-fourth longer than the 3rd and twice the 4th, claw segment trisetose along each ventral margin.

Aedeagus (Fig.2), in lateral view, almost straightly prolonged, gradually tapered apicad, thin at apex, which is weakly bent ventrally at tip, and in dorsal view weakly sinuate and constricted behind basal bulb; apical lobe large, weakly convergent forwards, widely rounded at distal margin; apical orifice widely open, surface sclerotized, apically armed with microtrichia; ventral surface longitudinally concave. Stylus (Fig. 3) rather strongly arcuate, with a short seta each external margin; basal segment shortly bispinous apico-externally; valvifer bisetose at apex.

Length: 8.2-8.8 mm. Width: 3.8-4.0 mm.

Holotype: \mathcal{J} , Doi Inthanon, Chiang Mai, Thailand, 10-17. X. 1989, MALICKY leg. (preserved in the Zoologische Staatssammlung, München). Paratypes: $2\mathcal{J}\mathcal{J}$, $1\hat{+}$, same data as the holotype; same locality and collector as the holotype, $1\mathcal{J}$, $3\hat{+}\hat{+}$, 21-28. II. 1989, $2\mathcal{J}\mathcal{J}$, 16-30. XI. 1990, $1\mathcal{J}$, $2\hat{+}\hat{+}$, 13-20. XI. 1990.

This new species is allied to *Trichotichnus* (s. str.) *noctuabundus* HABU (1954), but is different from the latter in having the elytra more strongly sinuate before apices, the metepisterna more weakly contracted behind, the fore tibiae not sulcate dorsally, and the aedeagus not arcuate and with the apex thinner and more elongate.

The new species also resembles *Trichotichnus* (s. str.) *ishiharai* N. ITO (1994), but has the antennae shorter, the pronotum more sparsely and finely punctate, the fore tibiae not sulcate, and the aedeagus more elongate and thinner at the apex.

Trichotichnus (s. str.) doiinthanonensis N. ITO, sp. nov. (Figs. 4 & 5)

This new species is very similar in the general appearance and even in the size to the preceding species, but is distinguishable by the paraglossae longer, the elytra much more shallowly sinuate before apices, the tibiae sulcate, and the aedeagus not straight and with apical lobe not elongate.

Head gently elevated, a little more than seven-tenths the width of pronotum; genuine ventral margin of eye adjoining buccal fissure. Pronotum a half wider than long; apex shallowly and uniformly emarginate; base one-fifth wider than apex, hardly bisinuate; all margin completely bordered; both front and hind transverse impressions relatively deep. Elytra about a half longer than wide; apices weakly produced, gently arcuate at sides, narrowly separated from each other; striae rather wide; intervals more or less convex, more convex laterally and apically; marginal series composed of (7-8) + (11+13) umbilicate pores. Hind wings entire. Abdomen in \mathcal{J} unisetose at each side of 6th segment. Microsculpture: on head vague square meshes near clypeal apex; on pronotum vague transverse meshes here and there; on elytra invisible under $80 \times$ magnification. Aedeagus (Fig. 4) thin, clearly arcuate, weakly thickened at apex; apical lobe small, widely rounded at outer margin; apical orifice wide, without armatures on inner sac. Stylus (Fig. 5) clearly arcuate; basal segment with short and thick setae apico-externally; valvifer bisetose at apex.

Holotype: \mathcal{J} , Doi Inthanon, Chiang Mai, Thailand, 27. XI. - 4. XII. 1990, MALICKY leg. (preserved in the Zoologische Staatssammlung, München). Paratypes: $1 \mathcal{J}$, same data as the holotype; $1 \mathcal{J}$ and $1 \mathcal{P}$,



Figs. 4-5 Genitalia of *Trichotichnus* (s. str.) *doiinthanonensis* N.ITO, sp. nov. 2, Male genitalia; 3, Female genitalia; a, dorsal view; b, lateral view; c, ventral view.

same locality and collector as the holotype, 20-27. XI. 1990 and 21-28. II. 1989, respectively.

Those new species are sympatric and similar to each other in general appearance, but the aedeagi are quite different to each other.

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Two New Species of the Genus *Tolidopalpus* from the Philippines (Coleoptera, Mordellidae)

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Abstract *Tolidopalpus sakaii* and *T. bimaculatus* are newly described from the Philippines with figures of important characters.

The genus *Tolidopalpus* was described by ERMISCH (1952) and redescribed by SHIYAKE (1995), it comprised three species, *T. castaneicolor* ERMISCH, 1952 from southern China, Kalimantan to New Guinea, *T. galloisi* (KôNo, 1932) from Japan and *T. kalimantanensis* SHIYAKE, 1995 from Kalimantan. Recently, I had an opportunity to examine some specimens of Mordellidae from the Philippines including two new species assigned to the genus *Tolidopalpus* on the basis of enlarged maxillary palpus in male and rather short antennae. In this paper, I describe them together with illustrations and some morphological notes.

The observation method is followed after SHIYAKE (1995). The type specimens are deposited in the Osaka Museum of Natural History, Osaka.

I would like to express my gratitude to Dr. MASAHIRO SAKAI (Ehime University) who kindly offered me the interesting specimens. My thanks are also due to Dr. MASAHIRO KON (the University of Shiga Prefecture) for his reading the manuscript and giving me invaluable comments.

Tolidopalpus sakaii sp. nov. (Fig. 1)

Description: Coloration (Fig. 1-D) almost blackish brown, head, pronotum, anal sternum, pygidium, most parts of legs, basal 4 segments of antenna reddish brown, distal 7 segments of antenna, hind femora and tibiae, terminal segment of maxillary palpi dark brown, ridges on hind legs black. Hairs on almost whole body blackish and lustrous seen from a certain angle.

Eyes nearly circular without emargination and pubescence, facets fine. Temple narrow, as wide as a facet. Antennae (Fig. 1-B) short and submoniliform, slightly serrate, 5th segment much larger than 4th, each of 5th to 10th almost as long as wide. Maxillary palpi sexually dimorphic (Fig. 1-G); terminal segment in male enlarged and elongate-subreniform, articulated at inner basal side, front surface rather largely extended forwards, hollowed and granulated with hairs on front margin (*Mordellochroa*-type), and in female rather normally securiformed with narrow apical margin, penultimate segment not dilated in both sexes. Pronotum a little wider

than long, lateral margin substraight in profile and converging anteriorly in dorsal aspect, anterior and posterior angles broadly rounded, apical margin normally protrudent, basal margin broad and a little protrudent. Scutellum small, rounded-triangular. Elytra 2.1 times as long as their humeral breadth, 2.8 times as long as pronotum, convergent posteriad, broadly rounded at apices. Apical margin of anal sternum obtuse, not excised in both sexes. Pygidium rather long in *Tolidopalpus*, acuminated, about 1/3 in male and 1/4 in female as long as elytron, nearly straight in lateral aspect.

Penultimate segment of fore tarsi (Fig. 1-F) dilated and emarginate at dorso-apical margin and joined with terminal segment at the center of dorsal surface. Penultimate segment of middle tarsi almost of the same as that of fore tarsi. Outer spur of hind tibia nearly 1/3 as long as inner one. Hind leg (Fig. 1-G) with rather long and oblique ridges, formulated as 4, 3, 2, 2; tibiae usually provided with 4 short ridges, basal one short and weak, 2nd basal one the longest, apical one oblique and not parallel to tibial edge; 1st tarsus with 3 very oblique ridges, 2nd and 3rd tarsi each with 2 oblique ridges.

Eighth abdominal urosternum in male (Fig. 1-E) a little longer than wide, apical lobe widely protrudent, densely pubscent and broady rounded at apex.

Parameres of male genitalia (Fig. 1-D) in rather general shape of the tribe Mordellistenini; left paramere with main lobe normally thick, not compressed, basal process very slightly recognizable, ventral branch thick and half as long as the main lobe; right paramere with thick



Fig. 1. *Tolidopalpus sakaii* sp. nov.; A, Lateral view (\mathcal{J}); B, maxillary palpus; C, antenna (4th segment arrow-ed); D, parameres of genitalia; E, 8th abdominal urosternum; F, distal segments of fore tarsus; G, hind leg. Scales: 0.25mm, except D and F of 0.1mm and A of 1.0mm.

and wide main lobe, ventral branch stout, shorter than the main lobe and bent dorsally toward apex.

Body length: $\sqrt[3]{4.0}$ 4.0mm, $\stackrel{\circ}{+}$ 4.5mm.

Holotype: \mathcal{J} , Eagle Centre, alt. 1100m, Balacatan, north slope of Mt. Apo, Mindanao, Philippines, 4.viii.1985, M. SAKAI leg. (OMNH TI · 63). Paratype: 1 $\stackrel{\circ}{+}$. The same locality and the collector as the holotype, 5.viii.1985.

Affinities: This new species is allied to *T. kalimantanensis* SHIYAKE, but can be distinguished from it by the blackish abdominal sterna and the shape of paramere of male genitalia.

Tolidopalpus bimaculatus sp. nov. (Fig. 2)

Male: Coloration (Fig. 2-D) almost yellowish to reddish brown; head, apical half of pronotum, basal halves of abdominal sterna, anal sternum, pygidium, distal segment of antennae and terminal segment of maxillary palpi dark brown. Elytra blackish except for yellowish humeral spots. Ridges on hind legs black. Hairs on almost whole body blackish and lustrous viewed from a certain angle, but on elytral spots and basal half of pronotum yellowish.

Eyes rather circular without emargination and pubescent, facets fine. Temple narrow, as wide as a facet. Antennae (Fig. 2-D) short, submoniliform, slightly serrate, 5th segment clearly larger than 4th, each of 5th to 10th almost as long as broad. Terminal segment of maxillary palpi in male enlarged and oblong, articulated at inner basal side, front surface less extended forwards, hollowed and granulated with hairs on front margin (*Mordellochroa*-type). Pronotum a little wider than long, lateral margin nearly straight in profile and converging anteriorly in dorsal aspect, anterior and posterior angles broadly rounded, apical margin normally protrudent, basal margin broad and a little protrudent. Scutellum small, rounded-triangular. Elytra 2.3 times as long as their humeral breadth, 2.8 times as long as pronotum, convergent posteriad, broadly rounded at apices. Apical margin of anal sternum obtuse, not excised. Pygidium remarkably long for *Tolidopalpus*, acuminated, about 2/5 as long as elytron, nearly straight in lateral aspect.

Penultimate segment of fore tarsi (Fig. 2-B) dilated and emarginate at dorso-apical margin and joined with terminal segment at the center of dorsal surface. Penultimate segment of middle tarsi almost same as that of fore tarsi. Outer spur of hind tibiae nearly 1/3 as long as inner one. Hind legs (Fig. 2-G) with rather long and oblique ridges, formulated as 4, 3, 2, 2; tibiae usually provided with 4 short ridges, basal one rudimental, 2nd basal one the longest, apical one oblique and not parallel to tibial edge: 1st tarsus with 3 very oblique ridges, 2nd and 3rd tarsi each with 2 oblique ridges.

Eighth abdominal urosternum (Fig. 2-F) almost as long as broad, apical lobe acuminately protrudent at apex with dense pubescence of various length.

Parameres of male genitalia (Fig. 2-E) in rather general form of the tribe Mordellistenini; left paramere with long and slender main lobe, not compressed, basal process clearly recognizable, ventral branch long and slender; right paramere with thick and wide main lobe, ventral branch long and stout, bent dorsally toward apex.

Female: Unknown.

Body length: 4.5mm.

Holotype. ♂, Mt. Puguis (alt. 1900-2000m), Mount Prov., Luzon, Philippines, 18.vii.1985, M. SAKAI leg. (OMNH TI · 64).



Fig. 2. *Tolidopalpus bimaculatus* sp. nov.; A, Lateral view; B, distal segments of fore tarsus; C, maxillary palpus; D, antenna (4th segment arrowed); E, parameres of genitalia; F, 8th abdominal urosternum; G, hind leg. Scales: 0.25mm, except B and E of 0.1mm and A of 1.0mm.

Affinities: This new species can be distinguishable from the other congeners by the coloration, especially by the remarkable humeral spots on the elytra.

Remarks: This new species is somewhat unique among *Tolidopalpus* species both in rather longer pygidium and in the shape of male genital organs. These characters may coincide with those of *Pseudotolida*, but the rather short antennae and very oblique ridges on hind tibiae are of the range of the genus *Tolidopalpus*.

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原稿作成の要領

A. 欧文原稿

 用紙にはA4版を用い、左右に3 cm 以上の余白をあけ、タイプライター、ワードプロセッサーあるいはコンピューター で打ち出したものとする。行間はダブルスペースとし、人名を除いて、表題や見出しを含めていかなる場合も大文字だ けでは打たない。人名のみ大文字で打つ。 タイプ原稿やフロッピーの作れない原稿の場合は、スキャナーで読み取るためイタリックやボールドなどの指定のない

文字を使用し,下線や訂正の書き込みのない原稿(コピーでもよい)を一部付ける. 2. 報文原稿は,表題,著者名,所属機関とその所在地,または住所,刷り上がり10行程度までの(約150語)の英文の著 者抄録(Abstract),本文,文献の順に配列する.

提出原稿の一部は無処置で,他の一部は動,植物の属およびそれ以下の学名に下線を引き,また人名には二重の下線引く(第一字を除いて).引用文献は著者名のアルファベット順に並べ下記の形式で記す.

BLACKWELDER, R. E., 1936. Morphology of the coleopterous family Staphylinidae. Smiths. misc. Coll., 94 (13): 1-102
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- 3. 報文中の採集または検視データは以下のように表記する.
- (例) 3 ♂ ♂, 2 ♀ ♀, Amaishi, Hyôgo, 28. V. 1995, Y. H<u>AYASHI</u> leg.
- 4. 原稿には原稿用紙と同質の表紙をつけ、これに表題、ランニング・タイトル(簡略化した論文表題、一 欧文 40 字内外) 著者名、連絡先を明記し、赤字で原稿及び図表の枚数、別刷りの必要部数、その他連絡事項など記入.
- 5. 図は耐水性黒色インクで鮮明に描き、そのまま印刷出来るようにする.図の拡大(縮小)率を示したい場合は図中にスケールを入れる.原図には薄紙のカバーをかけ、これに著者名、図の番号、上の方向を示し、図の裏にその種名を入れる.もし原図版上に取り扱い指定文字を入れるときにはかならず青鉛筆を用いる.原図の大きさは、台紙を含めてA4(210x295)以内とされたい.また原図の返送が必要な場合はカバーにその旨を記入する.
- 6. 図の説明及び表はそれぞれ別紙に書き,原稿末につける.

編集委員からのお願い

投稿される原稿については,投稿規定並びに原稿作製の要領をよく参照されて作製してください.本文の入ったフロッ ピーディスクはマッキントッシュまたはMS-DOSのフォーマットされたものに,必ずテキストファイルで入力してくだ さい.ワードプロセッサー専用機は専用OSの為,そのままでは取り込みは出来ません.DOS変換したものをお送り下さ い.

原稿をプリントアウトする際には特に段落がはっきり判るように作製してください.,また段落内の文節や単語の間が開きすぎないようにしてください.スキャナーで取り込むときに文章がバラけて取り込まれ,文章が壊れることがあります.

引用文献については,編集でチェック出来ないものもありますので,本紙の書式をよく確かめてください.また文献名の 省略の仕方も充分確認してください.

人名(欧文)は全て大文字で打ち込んで下さい.中国,朝鮮,タイなど,日本と同じ順序による姓名表記の場合も欧米式の姓名表記とします(つまり名,姓の順).

会 報

会費納入のお願い

本学会の会費は前納制です.次年度の会費は本年内にお納めください.各会員の会費納入状況は会誌送付の封筒の宛名の下に記入してあります.極力発送直前の資料で確認しておりますが誤り,疑問がございましたら,野村英世(〒590 堺市赤坂台1-18-5 Tel 0722-98-4066)までお問い合わせください.送金は振替口座00990-8-39672をご利用下さい.

会誌発行日について

会誌は6月15日と12月15日の発行を遵守するべく努力しておりますが、校正に手間取って印刷に廻す時期の遅れることがあります.投稿された原稿はなるべく早く掲載出来るよう 努力していますので、投稿される方は投稿規定をよくご確認の上、十分吟味された原稿を提出 されるようお願いいたします.編集の都合上3月15日と9月15日を一応の締切の目安とし ていますが、そのあとの投稿でも校閲、校正などが早く終了して、時間に余裕のある場合は極 力掲載するよう勤めています.

原稿募集

最近,評論への原著論文の投稿が少なく,またその分野も片寄っていますので,より多くの 分野の研究者の投稿を期待しています.また"ねじればね"への投稿も歓迎します.編集担当 の水野さんの努力により原稿も順調に集まっていますので,発行回数を増やすことも検討して います.







〒501-61 岐阜県羽島郡川島町 ☎ 058689-2101 エーザイ川島工園内



著作権

昆虫学評論及び"ねじればね"に掲載された著作は原則として本会に属する.

- 執筆者自身が自分の著作の一部を複製・翻訳などの形で利用する場合、これに対して当会では原則的に意義申し立てしたり妨げることはしない、ただし、執筆者自身でも全文を複製の形で他の著作物に利用する場合に限り、事前に本会へ文書で申出を行い、許諾を求めなければならない。
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投稿規程

- 投稿は原則として当学会員に限る.登載は原則的には受領順によるが、全額実費負担の原稿は優先的に取り扱うことが 可能である。但しアドバイサー制の導入により掲載の順位の変更がありうる(原稿は適当な方の校閲を受けたものであ ることが望ましい).
- 昆虫学評論には、当分の間、欧文原稿のみを掲載し、和文原稿は当面"ねじればね"に掲載されるものとする.またプレートは当分の間廃止し、図版はすべて本文内に収めるtext figure 扱いとする.但し著者負担によるカラー・プレートは認める.原稿の長さは刷り上がり10ページ以内とし、超過ページの印刷経費は著者負担とする.
- 3. 原稿(本文,図,表および表紙)は別記の要領で作成し、2部(一部はコピーで)を編集幹事に書留で郵送する. 本文をワードプロセッサーで作成した場合はDOSフォーマット化されたフロッピーに、またコンピューターで作成した 場合はマッキントッシュまたはDOS-フォーマット化されたフロッピー(1.44MB)に、ストリップテキスト化した後そ れぞれ書き込んで、プリントアウトした原稿とともに同時に提出することが望ましい、フロッピーが提出されることに よって校正や編集上の負担が著しく軽減される(当学会においてはマッキントッシュLC630にワードパーフェクト を乗せて編集しています).その他の詳しい原稿作成の要領については別ページを参照してください.
- 4. 原稿の掲載上の体裁については編集委員に一任されたい. 編集委員はアドバイサーの意見に基づいて原稿の内容につい て著者に再検討や訂正を求めることがある.
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- 6. 別刷は 50 部単位で作成し、 50 部を学会負担とする.
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和文原稿について

和文原稿は当分の間"ねじればね"紙上にのみ掲載の予定であるので、新しい分類学的処理を含む内容の論文の掲載は 出来ません."ねじればね"は当分年2回の発行として、1号4-8頁建てとする.分布、生態などの短報、分類学的 な解説やノート、同定の手引き、その他役にたつ論説、情報など幅広い内容で紙面を作っていきたいと考えています.

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