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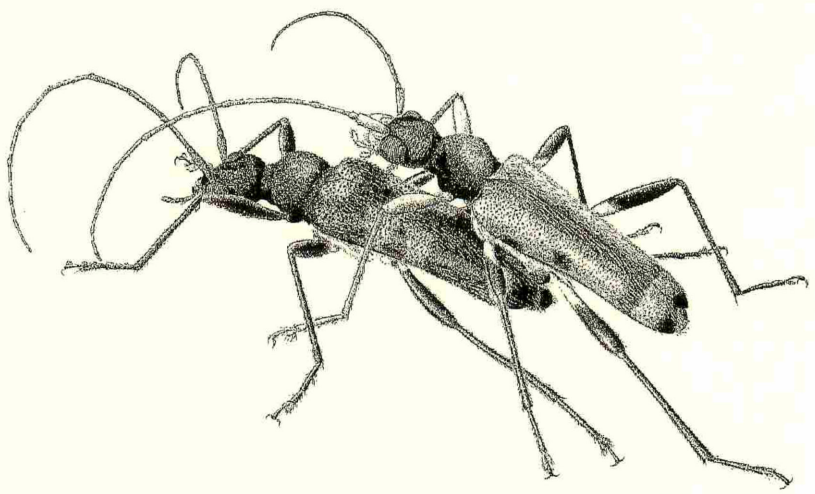

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Three New Cetoniid Beetles (Coleoptera, Scarabaeidae, Cetoniinae) from Southeast Asia

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9-18, Higashiyaguchi 2-chome, Ota-ku, Tokyo, 146 Japan

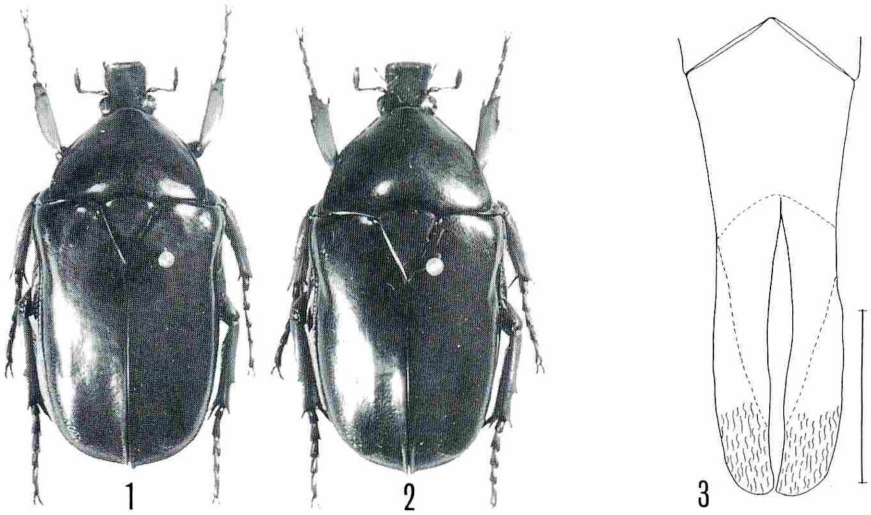
Abstract Two new species and a new subspecies of cetoniid beetles are described under the names of *Rhomborhina* (*Rhomborhina*) *castanea* sp. nov. from northern Vietnam, *Theodosia* (*Theodosia*) *miyashitai* sp. nov. from Borneo and *Heterorrhina* (*Heterorrhina*) *borneensis sumatrana* subsp. nov. from W. Sumatra.

In this paper, the author is going to describe two new species and a new subspecies of the cetoniid beetles from Southeast Asia.

Before going further, I wish to express my sincere gratitude to Mr. K. IWASE , Tokyo for his kind and continuous support in many ways. My thanks are also due to Messrs. M. FUJIOKA, N. KATSURA, K. KUME , T. MIYASHITA for their kind offer of the materials to this study.

Rhomborhina (*Rhomborhina*) *castanea* sp. nov. (Figs. 1-3)

Somewhat narrow; shining, dark reddish brown, femora and tibiae bright reddish brown, antennae, tarsi blakish brown; hairs of inner faces of middle and hind tibiae and margins of py-



Figs. 1-3. *Rhomborhina* (*Rhomborhina*) *castanea* sp. nov.; 1. habitus in male (holotype); 2. habitus in female; 3. male genitalia in dorsal view (scale: 3 mm).

gidium blackish brown.

Head relatively small; clypeus densely punctate, quadrate, about 1.1 times as wide as long, weakly arcuate at sides, straight and reflexed at anterior margin, rounded at anterior angles.

Pronotum transversely trapezoidal, about 1.55 times as wide as long, gently convex, sparsely and minutely punctate, lateral borders slightly angulate behind the middle, each groove along the borders ending before posterior angle.

Scutellum triangular, nearly 1.3 times as long as wide and almost impunctate.

Elytra about 1.45 times as long as wide, widest behind shoulders, marginate along lateral borders, finely serrate along posterior borders, sutural intervals sharply carinate in posterior half of inner margins, slightly but sharply prominent at apices; surface almost polished, transversely rugose near apices, with some rows of minute punctures near bases.

Pygidium transversely triangular, about 2.3 times as wide as long, slightly convex; surface finely rugose, with long setae along borders.

Front tibia slender, with two outer teeth including apical one, second tooth obtuse in male, and wider second tooth sharp in female. Outer face of middle tibia simple in male, frequently unispinous at the middle in female. Inner face of hind tibia clothed with long setae in basal 2/3.

Sternal process longer than wide, parallel-sided in basal half, semielliptical in apical half; suture of meso- and metasternum almost disappeared at the process. Third to fifth abdominal sternites slightly depressed in male, not depressed in female.

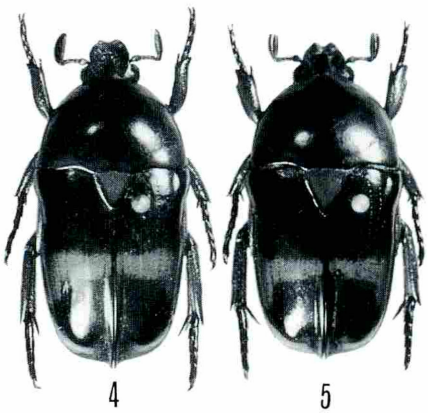
Male genitalia resembles those of other species in the genus (Fig. 3).

Body length: 31.2~34.4 mm; width: 14.6~16.8 mm.

Type series. Holotype: ♂, Mt. Piaoac, Cao Bang, northern Vietnam, 25. VI. 1996, M. ITO leg., preserved by the National Science Museum (Nat. Hist.), Tokyo. Paratypes: same locality as the holotype, 1 ♀, 3. VII. 1995, K. KUME leg.; 2 ♀ ♀, 3. VIII. 1995; 1 ♂, 5. VI. 1996, M. ITO leg.; 1 ♂, 25. VI. 1996, M. ITO leg.; 2 ♀ ♀, 27. VI. 1996, M. ITO leg.; 1 ♂, 1 ♀, 25. VIII. 1996.

Distribution. Northern Vietnam.

This new species resembles *Rhomborhina* (*Rhomborhina*) *jeanneli* RUTER from Yunnan, China and Thailand in the body shape and the structure of surface, but is easily distinguished from the latter by the different coloration (almost black in the latter), the narrower body and the hind tibia more sparsely setose.



4 5

Heterorrhina (*Heterorrhina*) *borneensis sumatrana* subsp. nov. (Figs. 4-5)

Different from the nominotypical subspecies from Borneo in the following points: body narrower, glossy blackish brown, with sides of pronotum, scutellum, the medial marking of elytra, mesosternal process, metasternum and ventral

Figs. 4-5. *Heterorrhina* (*Heterorrhina*) *borneensis sumatrana* subsp. nov.; 4. habitus in male (holotype); 5. habitus in female.

face of femora pale reddish purple, whereas in the nominotypical one, body glossy black, with brilliant green markings on pronotum and elytra; scutellum larger; elytra more strongly and more sharply pointed at the sutural apices.

Body length: 19.0~21.1 mm; width: 9.6~10.2 mm.

Type series. Holotype: ♂, Padang, W. Sumatra, Indonesia, V. 1991, preserved in the Kanagawa Prefectual Museum, Odawara. Paratypes: 1♀, same date as the holotype; 1♂, 1♀, same locality as the holotype, VII. 1991; 1♂, Harau Valley, W. Sumatra, Indonesia, III. 1995; 1♂, W. Sumatra, Indonesia, IV. 1981.

Distribution. W. Sumatra

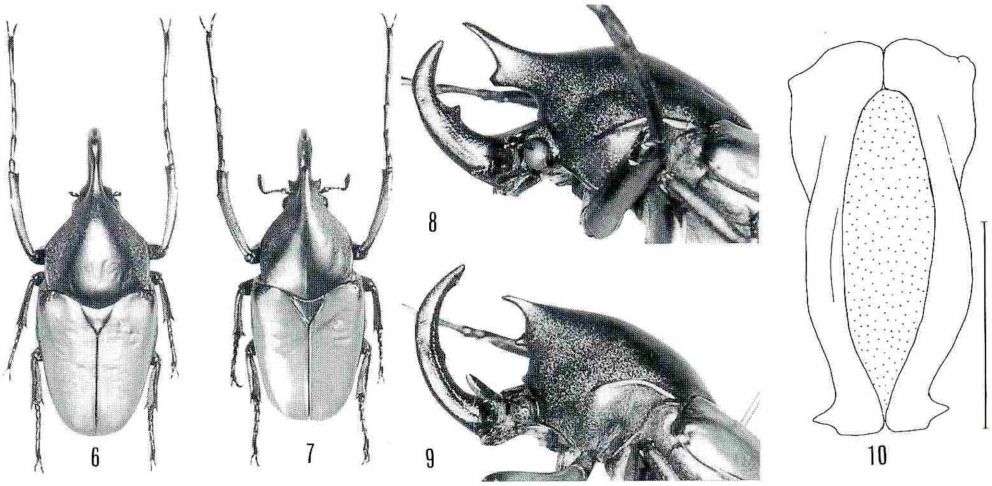
Theodosia (*Theodosia*) *miyashitai* sp. nov. (Figs. 6, 8 & 10)

Male. Elongate-oval; head and pronotum yellowish cupreous green, apices and ventral faces of cephalic and thoracic horns deep red, elytra yellow brown and with greenish luster, ventral surface and pygidium bright cupreous brown to cupreous green, with yellowish tint and closely clothed with pale gray hairs.

Clypeus strongly transverse, about 3 times as wide as long, densely and finely punctate, angulate but not sharply toothed at anterior angles; cephalic horn stout, arcuately curved in lateral view, sharp at apex, sometimes with a tubercle before the middle of dorsal face.

Pronotum semi-global, about as long as wide except for the horn, narrowly thickened in posterior half along lateral borders; surface impunctate on disc, shagreened at sides and the horn; thoracic horn slender, somewhat shorter than cephalic one, horizontally produced anteriad, bifurcate at apex, taller than wide in cross section, with a large tubercle at the middle of ventral face.

Elytra transverse, about 1.2 - 1.3 times as long as wide, widest behind shoulders and gradually narrowed posteriad, marginate at sides, truncate at apical part, but slightly pointed at the



Figs. 6, 8 & 10. *Theodosia* (*Theodosia*) *miyashitai* sp. nov ♂; 6. habitus (holotype); 8. head and thorax in lateral view; 10. male genitalia in dorsal view (scale: 2 mm). Figs. 7 , 9. *T.* (*T.*) *chewi* Ochi ♂; 7. habitus; 9. head and thorax in lateral view.

middle; surface almost wholly coriaceous, sparsely punctate near only base,

Front tibia very slender, glabrous, with an outer tooth behind apical one; middle and hind tibiae densely clothed with long hairs on inner faces.

Male genitalia as shown in Fig. 10.

Female. Unknown.

Body length: 30.2~39.5 mm (incl. horn), 24.0~30.9 mm (excl. horn); width: 14.2~15.8 mm.

Type series. Holotype: ♂, Tawau, Sabah, Borneo, E. Malaysia, 21. IV. 1996, preserved in the National Science Museum (Nat. Hist.), Tokyo. Paratypes: 5 ♂♂, same date as the holotype; 1 ♂, same locality as the holotype, 28. V. 1977.

Distribution. Borneo.

This new species is closely allied to *Theodosia* (*Theodosia*) *chewi* OCHI (Figs. 7, 9) which was recently described from Borneo, but is easily distinguished from the latter by the clypeus not toothed at anterior angles and thoracic horn not much shorter than the cephalic one whereas in the latter, the clypeus is sharply pointed at anterior angles and the thoracic horn is distinctly shorter than the cephalic horn.

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Ent. Rev. Japan, 52(2): 61-71, Dec. 15, 1997

Revision of the Genus *Sepedophilus* GISTEL (Coleoptera: Staphylinidae: Tachyporinae) from Japan: Species Groups of *S. glabratus* and *S. exiguus*[1)]

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Abstract The Japanese species of *glabratus*- and *exiguus*-groups of the genus *Sepedophilus* GISTEL are revised. The three new species and a new subspecies are described as follows: *Sepedophilus glabratus*, *S. glabratus okinawanis*, *S. exiguus*, and *S. elegantissimus*. Keys to the members of each species group are provided. The aedeagi and the apical abdominal segments of male and female are illustrated in detail for comparison.

During the course of the study on the Japanese Tachyporinae we found a series of small-sized *Sepedophilus*-species, whose elytra have paired markings. These species remarkably resemble *S. armatus* (SHARP, 1888), but they are readily distinguishable from the latter by the absence of bristles along the marginal areas of elytra, etc. Up to the present such *Sepedophilus*-species have not been known from Japan at all. By the close examination we came to a conclusion that they are classified into 3 species and a subspecies (*S. glabratus*, *S. glabratus okinawanis*, *S. exiguus* and *S. elegantissimus*). Although they have such common characters as the small body, the elytral markings in pair, the hind tibiae without setae, the chaetotaxy on 3rd to 6th tergites 0-1-1-1, the male 9th tergite continuous, and the internal structure of median lobe with a H-shaped or rectangular sclerite, *S. glabratus* is definitely separable from the other two species by the structures of the mid and hind tarsomeres and the female 8th tergite mentioned in the diagnosis. Thus, *S. glabratus* and the other two species should be classified into the different species-groups.

In this paper the species group of *S. glabratus* is established for *S. glabratus* and *S. g. okinawanis*, and also the species group of *S. exiguus* is for *S. exiguus* and *S. elegantissimus*. Three new species and a new subspecies are described and illustrated in detail; the keys to the Japanese species and subspecies are also provided. For the parts of body measured and the abbreviations used in the text and also for the taxonomic characters including chaetotaxy, see NAOMI

1) Taxonomic study on the subfamily Tachyporinae from Japan, 3.

and MARUYAMA (1997). In the figures the sensory setae are shown by the arrows; the long and short bristles are illustrated, but the pubescence is omitted.

Species Group of *S. glabratus*

Diagnosis: Body small; antennae brown with basal segments paler; elytra maculated, without bristles; elytral epipleura subacute; mid and hind legs each with 3rd tarsomere bearing a ventral flap which extends to the apex of 4th tarsomere; chaetotaxy in 3rd to 6th tergites 0-1-1-1; male 8th tergite with 4 long bristles; male 8th sternite with 3 long bristles; male 9th tergite continuous, with 5 long and 1 short bristles; female 8th tergite with inner lobe longer than outer lobe.

One species and one subspecies, *S. glabratus*, and *S. glabratus okinawanis*, belong to this species-group in Japan.

Key to Species and Subspecies of *S. glabratus*-group

1(2) Aedeagus with median lobe larger, more strongly bulbous at base, with narrower apex; internal structure with a distinct rectangular sclerite, the setous area broader; parameres less strongly attenuate at apices ..... *S. glabratus glabratus* sp. and subsp. nov.

2(1) Aedeagus with median lobe smaller, less strongly bulbous at base, with broader apex; internal structure with rectangular sclerite incomplete and partially amalgamated with the narrower setous area; parameres more strongly attenuate at apices ..... *S. glabratus okinawanis* subsp. nov.

Sepedophilus glabratus NAOMI et MARUYAMA sp. nov.

(Figs. 1; 2. A-E, G; 5. A,D)

Male and female. Fore part: 1.52-1.62 mm in length (Fig. 1), weakly shining, with relative proportions: HL: 7; HW: 13; PL: 15; PW: 24; SL: 21; EW: 24. Head brown, with reddish brown clypeofrontal area; pronotum brown, with broad marginal area yellowish brown; elytra brown to reddish brown or yellowish brown, with sutural area sometimes infuscate, and also with a pair of medio-lateral markings, the markings distinct, often indistinct or almost vanishing; abdomen brown to reddish brown; antennae brown, with basal segments pale yellowish brown; mouth parts and legs yellowish brown to reddish brown.

Head transverse, with distinct frontoclypeal and midcranial sutures; eyes a little shorter than the 2nd and 3rd antennal segments combined, weakly convex; pubescence sparse, occurring almost concentrically, distinctly longer and much sparser than that on pronotum; surface with faint, fingerprint-like microsculpture; antennae relatively slender, 3rd to 11th segments becoming gradually broader apically, 10th a little broader than long, 11th slightly asymmetrical, obtusely pointed at apex, with ALP: 8 : 5 : 5 : 4 : 4 : 4 : 4 : 4 : 4.5 : 5 : 7.

Pronotum moderately to strongly convex dorsally, broad, basal margin very weakly arcuately emarginate at sides, posterolateral corners almost rounded, not protruding posteriorly; pubescence short, very dense, almost turning posteriorly; microsculpture extremely fine, run-

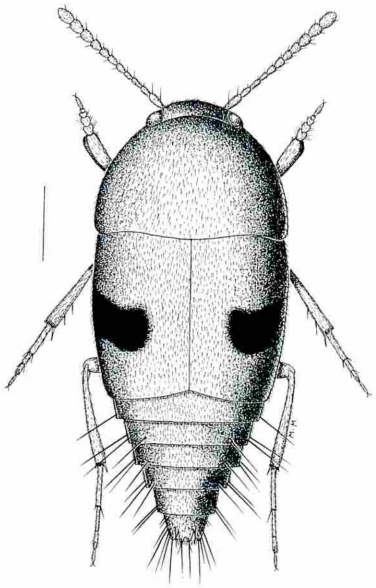

Fig. 1. *Sepedophilus glabratus* sp. nov. Scale: 0.4 mm.

ning transversely. Mesosternum with a median keel low, running almost in full length, mesosternal process acutely pointed; mesocoxal cavities narrowly separated; metasternum at median part about 2/5 the length of lateral part.

Fore legs with tibiae bearing 3 thin setae, internally with a line of thin setae along apical margin, ventrally with an oblique (or transverse) line of setae near apex, externally with a yellow long ctenidium which occupies the full length of tibia and becomes gradually larger apically; 1st to 3rd tarsomeres each moderately dilated, 4th much smaller than and about half as broad as 3rd. Mid legs with femora bearing 1 long and 2 or 3 short apicoventral setae; tibiae with 2 setae, 1 long apical spur, and fimbriate setae at apical margin; 3rd tarsomere with a ventral flap extending to the apex of 4th tarsomere. Hind legs with femora bearing 1 long apicoventral seta; tibiae without setae, 1 long apical spur, and fimbriate setae at apical margin; 3rd tarsomere with a ventral flap similar to that of mid leg in structure, with TLP: 10 : 5 : 4 : 2 : 6.

Elytra well convex above, weakly narrowed posteriorly, posterolateral corners rounded, conjoint hind margins shallowly emarginate; epipleuron subacute, with outer margin a little higher than inner margin only in posterior part; pubescence similar to that on pronotum; microsculpture very fine and minute, reticulate.

Abdomen strongly narrowed posteriorly; pubescence very dense, distinctly longer than that on elytra; chaetotaxy on 3rd to 6th tergites: 0-1-1-1; 7th tergite without bristles.

Male. Eighth tergite (Fig. 2 A) entire, with 4 long bristles; 8th sternite (Fig. 2 B) with a large V-shaped emargination, 3 long bristles; 9th tergite (Fig. 5 A) narrow, completely continuous, apical lobes moderately separated, with 5 long and 1 short bristles; 9th sternite (Fig. 2D) symmetrical, narrowed apically, with 2 short bristles; 10th tergite (Fig. 5 A) narrow, with 1 short thin bristle. Aedeagus (Fig. 2 E) with median lobe moderately bulbous at base, gradually narrowing to pointed apex; internal structure with a basal tube short, almost straight and broadened posteriorly, with a sclerite behind basal orifice, a rectangular sclerite just behind the basal tube, and the area densely clothed with moderately long setae in addition to paired longitudinal bands; parameres slender, extending posteriorly far beyond the apex of median lobe, each very thin and extremely attenuate at apical part.

Female. Eighth tergite (Fig. 2 C) with inner lobe short but a little longer than outer lobe, median emargination deep, not extending anteriorly beyond the base of narrow lateral emargination, with 8 long bristles in addition to 2 sensory setae; 8th sternite (Fig. 2 G) entire, with 3 long and 1 short bristles in addition to 6 sensory setae; 9th tergite (Fig. 5 D) widely separated; 9th sternite (Fig. 5 D) with hemisternites small, coxites and styli elongate; 10th tergite (Fig. 5 D) almost triangular, ciliate apically.

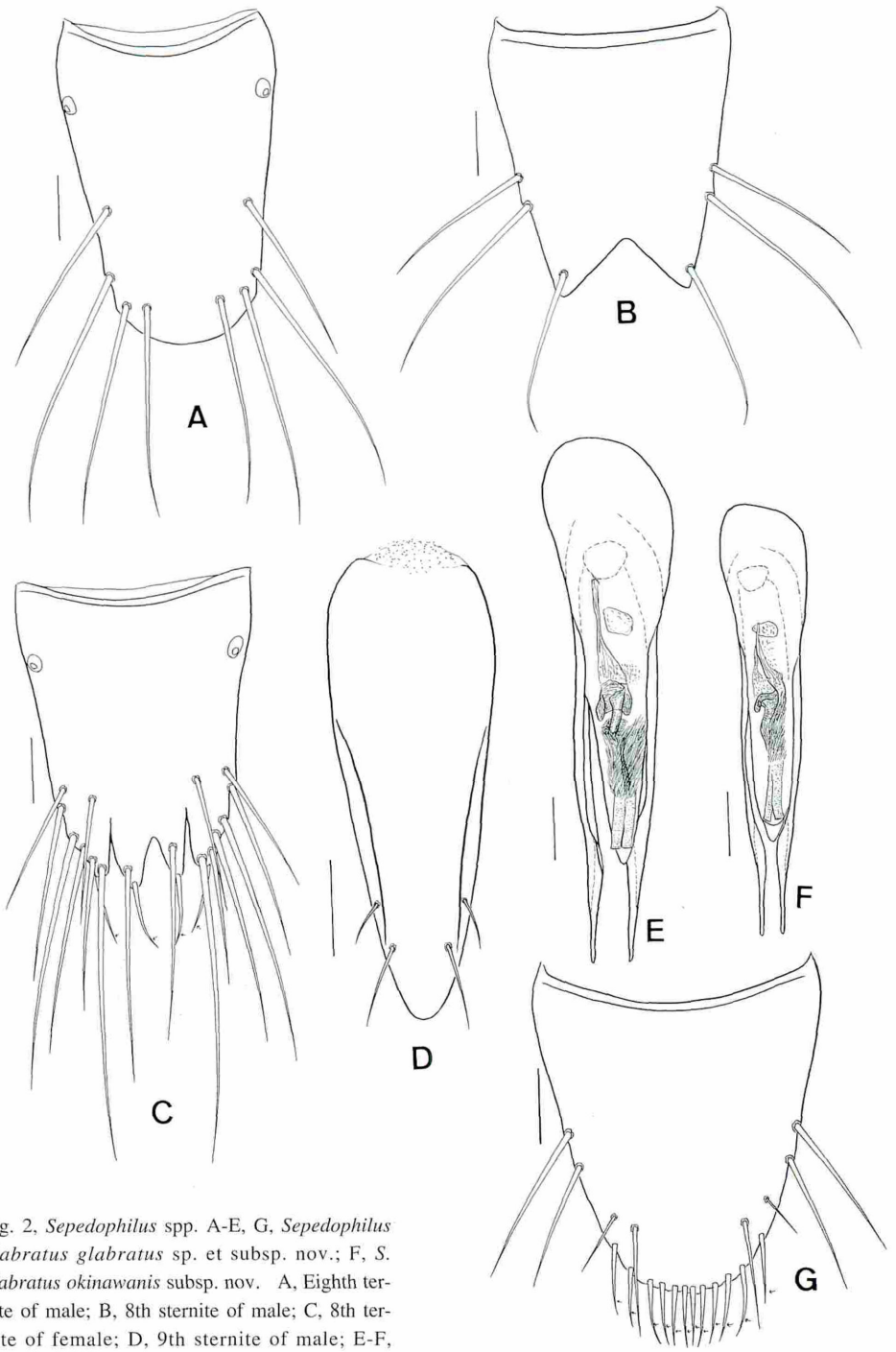

Fig. 2, *Sepedophilus* spp. A-E, G, *Sepedophilus glabratus glabratus* sp. et subsp. nov.; F, *S. glabratus okinawanis* subsp. nov. A, Eighth tergite of male; B, 8th sternite of male; C, 8th tergite of female; D, 9th sternite of male; E-F, aedeagus; G, 8th sternite of female. Scale: 0.1 mm.

Type series. Holotype: ♂ (Type No., CBM-ZI 34418), Wake, Okayama Pref., 29. IV. 1977, S. NAOMI leg. Paratypes, HONSHU: 4 exs., Uono River, Kawaguchi-cho, Niigata Pref., 30. IV. 1995, K. HAGA leg.; 1 ex., same locality, 6. V. 1996, K. HAGA leg.; 1 ex., Hachioji-shi, Tokyo-to, 20. V. 1978, M. TAO leg.; 1ex., Kiwadabata, Kimitu-shi, Chiba Pref., 4. IV. 1996, T. TAKEDA leg.; 1 ex., Yomogi, Mt. Kiyosumi, Chiba Pref., 24. IV. 1990, T. TAKEDA leg.; 3 exs., Hiratsuka, Kanagawa Pref., 12. VIII. 1960, Y. SHIBATA leg.; 1 ex., Hiratsuka Beach, Kanagawa Pref., 28. IX. 1958, Y. SHIBATA leg.; 1 ex., Zushi, Kanagawa Pref., 6. V. 1956, K. ISHIDA leg.; 1 ex., Hirose, Okayama Pref., 3. V. 1977, S. NAOMI leg.; 1 ex., Wake, Okayama Pref., 17. IV. 1978, S. NAOMI leg.; 1 ex., Mt. Hattoji, Okayama Pref., 1. V. 1977, A. WATANABE leg.; KYUSHU: 1 ex., Uchimura, Ueki-cho, Kumamoto Pref., 22. XI. 1988, S. NAOMI leg.

Distribution. Japan (Honshu; Kyushu).

Remarks. *Sepedophilus glabratus* sp. nov. is similar in outline to *S. armatus* (SHARP, 1888), but is easily separable from the latter by the absence of bristles on the elytra. This new species is allied to *S. exiguus* sp. nov., but the male 9th sternite is more elongate, the inner lobe of female 8th tergite is a little longer than its outer lobe, and the parameres are straight and extremely attenuate at apices.

Specimen measured is a paratype (Uono, Niigata).

Etymology. The specific name is derived from the absent condition of bristles on the elytra.

Sepedophilus glabratus okinawanis NAOMI et MARUYAMA subsp. nov.

(Fig. 2F)

Similar in external structure and coloration to those in he nominotypical subspecies, but this new subspecies is distinctly separable from the latter by the following aedeagal characters: median lobe (Fig. 2 F) smaller, with basal part less strongly bulbous, and apical part a little broader and less acutely pointed; internal structure with basal tube shorter, the rectangular sclerite incomplete and partially amalgamated to the setous area which is narrower and covered with shorter setae; parameres much more strongly attenuate apically.

Type series. Holotype: ♂ (Type No., CBM-ZI 34426), Hiji, Okinawa Pref., 11. III. 1978, S. NAOMI leg. Paratypes, Nansei Isls.: 5 exs., 28. III. 1978, Shin-mura, Amami Is., Kagoshima Pref., S. NAOMI leg.; 2 exs., Takazato, Oogimi Vil., Okinawa Pref., 3. XI. 1993, M. KIMURA leg.; 1 ex., Oshikawa, Oogimi Vil., Okinawa Pref., 7. XI. 1993, M. KIMURA leg.; 3 exs., Hiji Fall, Kunigami-son, Okinawa Is., 22. X. 1987, M. SAKAI leg.; 1 ex., Nago-shi, Okinawa Pref., 10. III. 1978, S. NAOMI leg.

Distribution. Japan (Nansei Isls.: Amami Is., Okinawa Is.).

Remarks. As there are no variations concerning the above-mentioned characters of aedeagus, I here treated the local populations of Amami Is. and Okinawa Is. as a distinct subspecies.

Etymology. The subspecific name is derived from a type locality of this subspecies, Okinawa Island.

Species Group of *S. exiguus*

Diagnosis: Body small; antennae yellow to yellowish brown, with median segments infuscate; mid and hind legs with 3rd tarsomeres without ventral flaps; elytra maculated, without

bristles, elytral epipleura acute to subacute; chaetotaxy on 3rd to 6th tergites 0-1-1-1; male 8th tergite with 4 or 5 long bristles; male 8th sternite with 3 or 5 long bristles; male 9th tergite continuous, with 5 or 10 long bristles; female 8th tergite with inner lobe as long as outer lobe.

Two species, *S. exiguus* and *S. elegantissimus*, belong to this species-group in Japan.

Key to Species of *S. exiguus*-group

1(2) Body weakly shining; head with midcranial suture absent or very indistinct; pronotum broader, less strongly narrowing anteriorly, without markings; apical lobes of male 9th tergite broadly separated; apical sclerite of median lobe curved, hook-shaped ..... *S. exiguus* sp. nov.

2(1) Body moderately shining; head with midcranial suture long and thin; pronotum narrower, more strongly narrowing anteriorly, with two pairs of markings; apical lobes of male 9th tergite narrowly separated; apical sclerite of median lobe straight, stalky ..... *S. elegantissimus* sp. nov.

Sepedophilus exiguus NAOMI et MARUYAMA sp. nov.

(Figs. 3; 5. B)

Male and female. Fore part 1.13-1.19 mm in length, well convex above, weakly shining, with relative proportions: HL: 6; HW: 11; PL: 13; PW: 20; SL: 17; EW: 20. Head and pronotum dark brown to reddish brown; elytra reddish brown, with a pair of rectangular markings which are indistinct in outline, broadened laterally, and lying between the anterior 2/5 and posterior 1/5 of elytra; abdomen reddish brown, 6th segment infuscate; antennae yellow to yellowish brown, 4th (or 5th) to 9th segments more or less infuscate; mouth parts and legs yellow to reddish brown.

Head with clypeofrontal suture distinct, midcranial suture absent or indistinct; eyes about as long as 2nd and 3rd antennal segments combined, moderately convex; pubescence very sparse and thin; antennae relatively short and thick, 3rd segment strongly narrowed at base, 4th to 10th becoming gradually broader apically, 10th distinctly broader than long, with ALP: 5 : 4 : 4 : 3 : 3 : 3 : 3 : 2.5 : 3 : 3 : 5.

Pronotum quite convex above and broad, basal margin weakly bisinuate, posterolateral corners weakly projecting posteriorly but rounded; pubescence dense, short; microsculpture very faint, fingerprint-like but often interrupted.

Fore leg with tibia ventrally bearing a transverse line of 4 or 5 setae near apex, externally with a yellow ctenidium in apical 5/8; 1st tarsomere strongly dilated, 1st to 4th becoming gradually narrower apically. Mid leg with femur bearing 1 very long and 2 or 3 short apicoventral setae; tibia with 3 setae, 1 long and 1 short apical spurs, and fimbriate setae at apical margin. Hind leg with femur bearing 1 long apicoventral seta; tibia without setae, with 1 apical spur, and fimbriate setae at apical margin; tarsus with TLP: 28 : 15 : 13 : 8 : 20.

Elytra weakly narrowed posteriorly, hind margin very weakly rounded; epipleuron acute, with outer margin a little lower than inner margin even in posterior part; surface similarly pubescent as on pronotum.

Abdomen with pubescence a little longer than that on elytra; chaetotaxy on 3rd to 6th tergites: 0-1-1-1; 7th tergite without bristles.

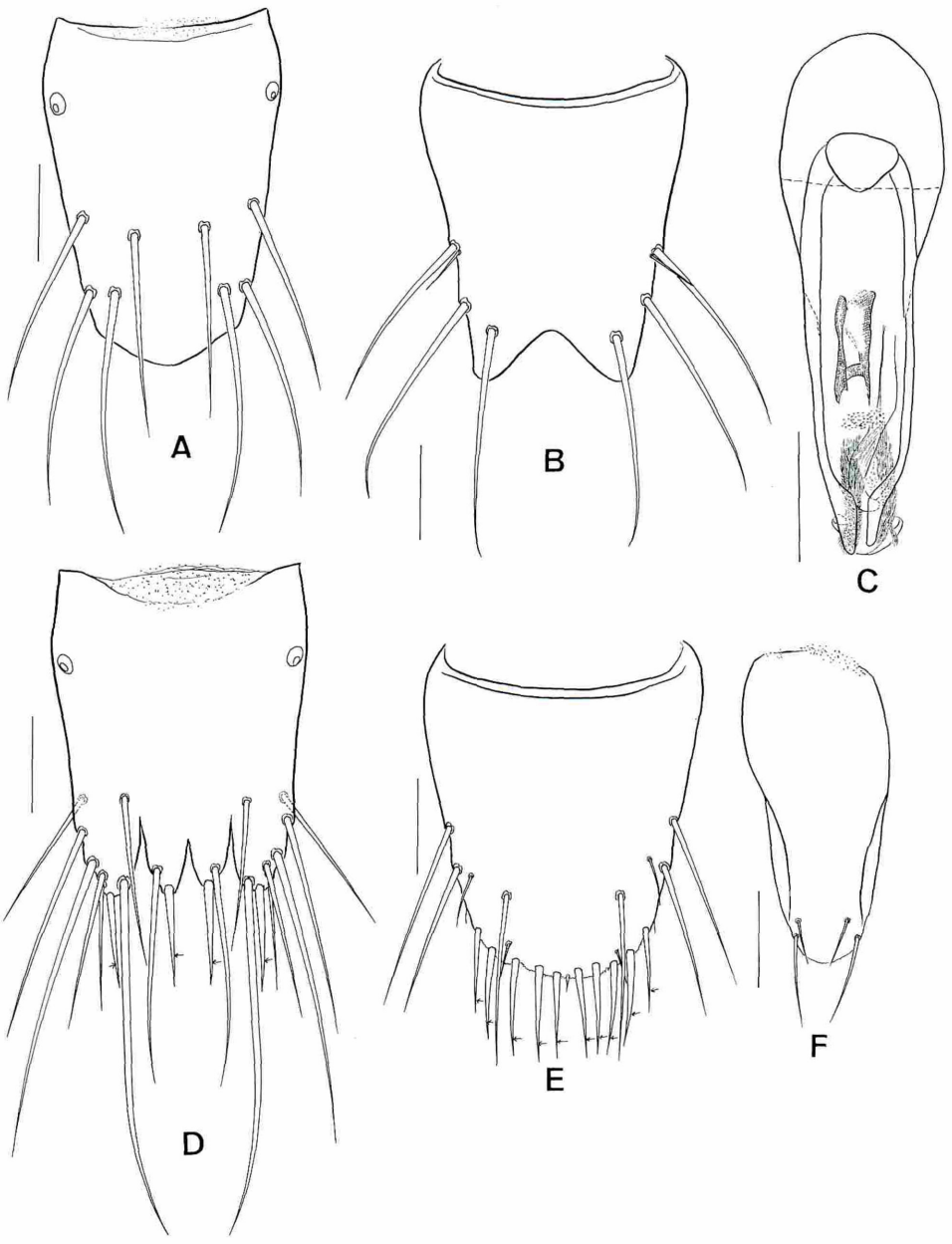

Fig. 3. *Sepedophilus exiguus* sp. nov. A, Eighth tergite of male; B, 8th sternite of male; C, aedeagus; D, 8th tergite of female; E, 8th sternite of female; F, 9th sternite of male. Scale: 0.1 mm.

Male. Eighth tergite (Fig. 3 A) obtusely angulate at posterolateral corners, with 4 long bristles; 8th sternite (Fig. 3 B) with a large and broad V-shaped emargination, 3 long and 1 short bristles; 9th tergite (Fig. 5 B) completely continuous, apical lobes widely separated, with 5 long and 2 short bristles; 9th sternite (Fig. 3 F) weakly asymmetrical, with 2 bristles; 10th tergite (Fig. 5 B) broad, with 1 thin bristle. Aedeagus (Fig. 3 C) with median lobe moderately bulbous

at base; internal structure with a H-shaped sclerite, and a large hook-shaped sclerite between two lines of setous areas at apical part; parameres slender, strongly curved inward at apices, with inner margins of apical parts parallel.

Female. Eighth tergite (Fig. 3 D) with inner lobe short, broad, and as long as outer lobe, median emargination narrow, not extending anteriorly to the base of lateral emargination, with 8 long bristles in addition to 2 sensory setae; 8th sternite (Fig. 3 E) entire, with 3 long and 2 short bristles, and 5 long sensory setae.

Type series. Holotype: ♂ (Type No., CBM-ZI 34430), Mt. Omoto, Ishigaki Is., Nansei Isls., 20. III. 1978, S. NAOMI leg. Paratypes: 8 exs., same data as in holotype; 1 ex., Ishigaki Is., Nansei Isls., 27. III-13. VI. 1996, K. TAKAHASHI leg.

Further specimens examined. This new species is distributed also in Taiwan as follows: 4 exs., Wulai, Taipei-Hsien, 24. VIII. 1971, Y. SHIBATA leg.; 1 ex., same locality, 27. VIII.1970, Y. SHIBATA leg.; 1 ex., Ouluanpi, Pingtung-Hsien, 13. VIII.1971, Y. SHIBATA leg.; 1 ex., Koantauchi, Nantou-Hsien, 27. VII. 1971, Y. SHIBATA leg.; 1 ex., Juisui Spa., Hualien-Hsien, 26.VII. 1970, Y. SHIBATA leg.

Distribution. Japan (Nansei Isls.: Ishigaki Is.); Taiwan.

Remarks. *Sepedophilus exiguus* sp. nov. is very similar in outline to *S. glabratus* sp. nov., but the body is smaller, the ventral flaps are absent in the 3rd tarsomeres of the mid and hind legs; the elytral markings are situated more posteriorly, the apical lobes of male 9th tergite are more broadly separated, and the inner lobes of female 8th tergite are as long as the outer lobes.

Specimen measured is a paratype (Omoto, Ishigaki).

Etymology. The specific name means "small".

Sepedophilus elegantissimus NAOMI et MARUYAMA sp. nov.

(Figs. 4; 5.C)

Male and female. Fore part 1.38-1.51 mm in length, well convex dorsally, moderately shining, with relative proportions: HL: 7; HW: 13; PL: 19; PW: 24; SL: 24; EW: 20. Head reddish brown; pronotum reddish brown, with two pairs of markings, a pair of round midlateral markings dark brown, indistinct in outline and sometimes absent, the other pair transverse, narrow, and situated at median part near posterior margin; elytra reddish brown, but pale reddish brown and somewhat transparent along posterior margin, with a pair of dark brown, large and almost rectangular markings which are situated behind the middle; abdomen reddish brown to dark brown; antennae yellow to yellowish brown, the 4th (or 5th) to 8th segments somewhat infuscate; mouth parts and legs yellowish brown to reddish brown.

Head transverse, rounded in dorsal view, with frontoclypeal and midcranial sutures thin and distinct; eyes a little shorter than 2nd and 3rd antennal segments combined; pubescence very sparse; microsculptures very faint, fingerprint-like; antennae relatively short, 5th segment distinctly broadened apically, 6th to 10th relatively broad, 10th broader than long, with ALP: 7 : 6: 5 : 4.5 : 4 : 4 : 4 : 3.5 : 4 : 4 : 7.

Pronotum quite convex above, narrowed anteriorly; basal margin weakly arcuate laterally; posterolateral corners weakly protruding posteriorly, obtusely angulate; pubescence moderately dense, short, yellowish; surface simply shining or with very fine transverse microsculptures.

Fore leg with coxa bearing about 10 apical setae; tibia with 2 apico-internal setae, 1 apical

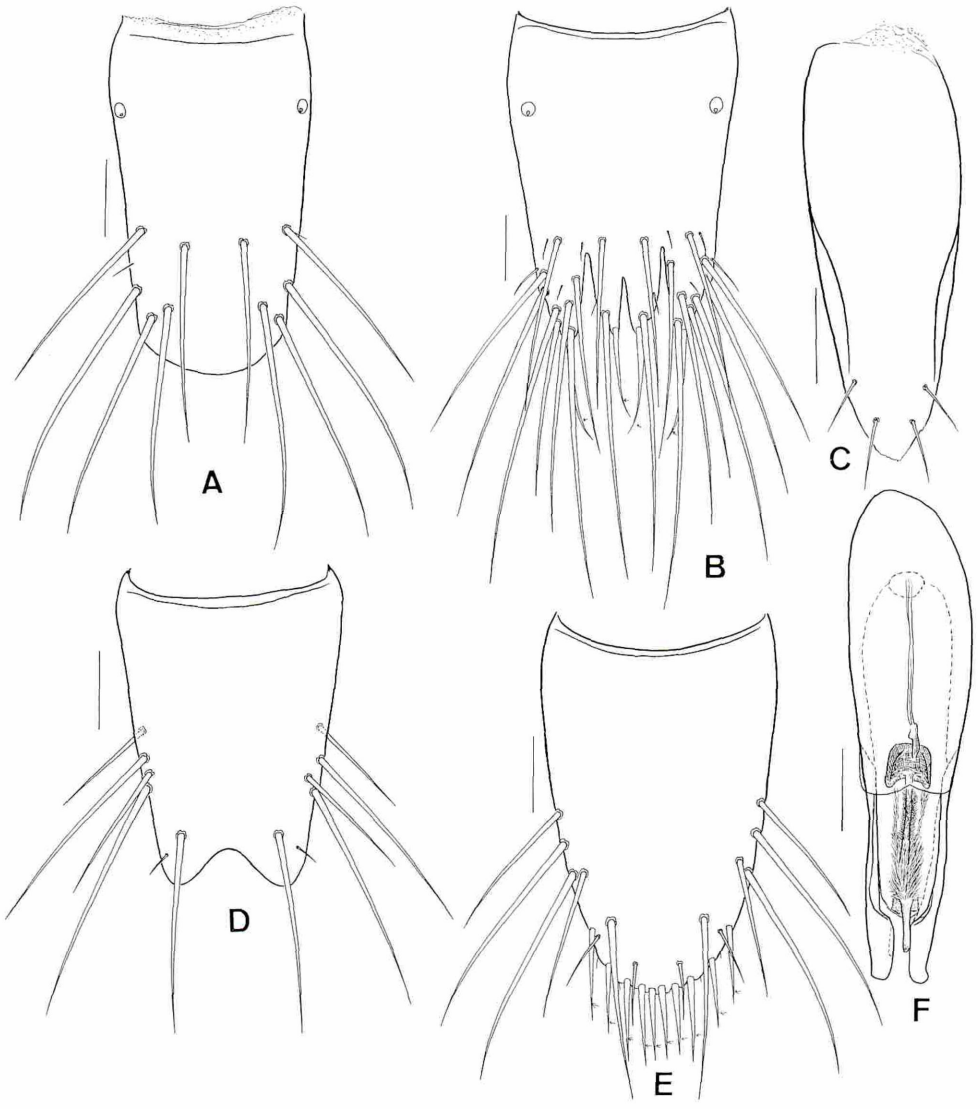

Fig. 4. *Sepedophilus elegantissimus* sp. nov. A, Eighth tergite of male; B, 8th tergite of female; C, 9th sternite of male; D, 8th sternite of male; E, 8th sternite of female; F, aedeagus. Scale: 0.1 mm.

thick spur and 2 apical setae situated at external side of the spur, ventrally with a transverse row of 4 setae near apex, externally with a yellow ctenidium in apical 7/9; 1st tarsomere moderately dilated, 1st to 4th tarsomeres becoming narrower apically. Mid leg with coxa bearing about 5 apical setae; femur with 1 long and 2 short apicoventral setae; tibia with 4 setae, 1 short apical spur, fimbriate setae at apical margin. Hind leg with femur bearing 1 long apicoventral seta; tibia without setae, with 1 long apical spur, and fimbriate setae at apical margin; tarsus slender, with TLP: 21 : 11 : 9 : 5 : 12.

Elytra weakly narrowing posteriorly; epipleuron subacute; surface similarly pubescent as on pronotum; microsculptures weakly minutely imbricate.

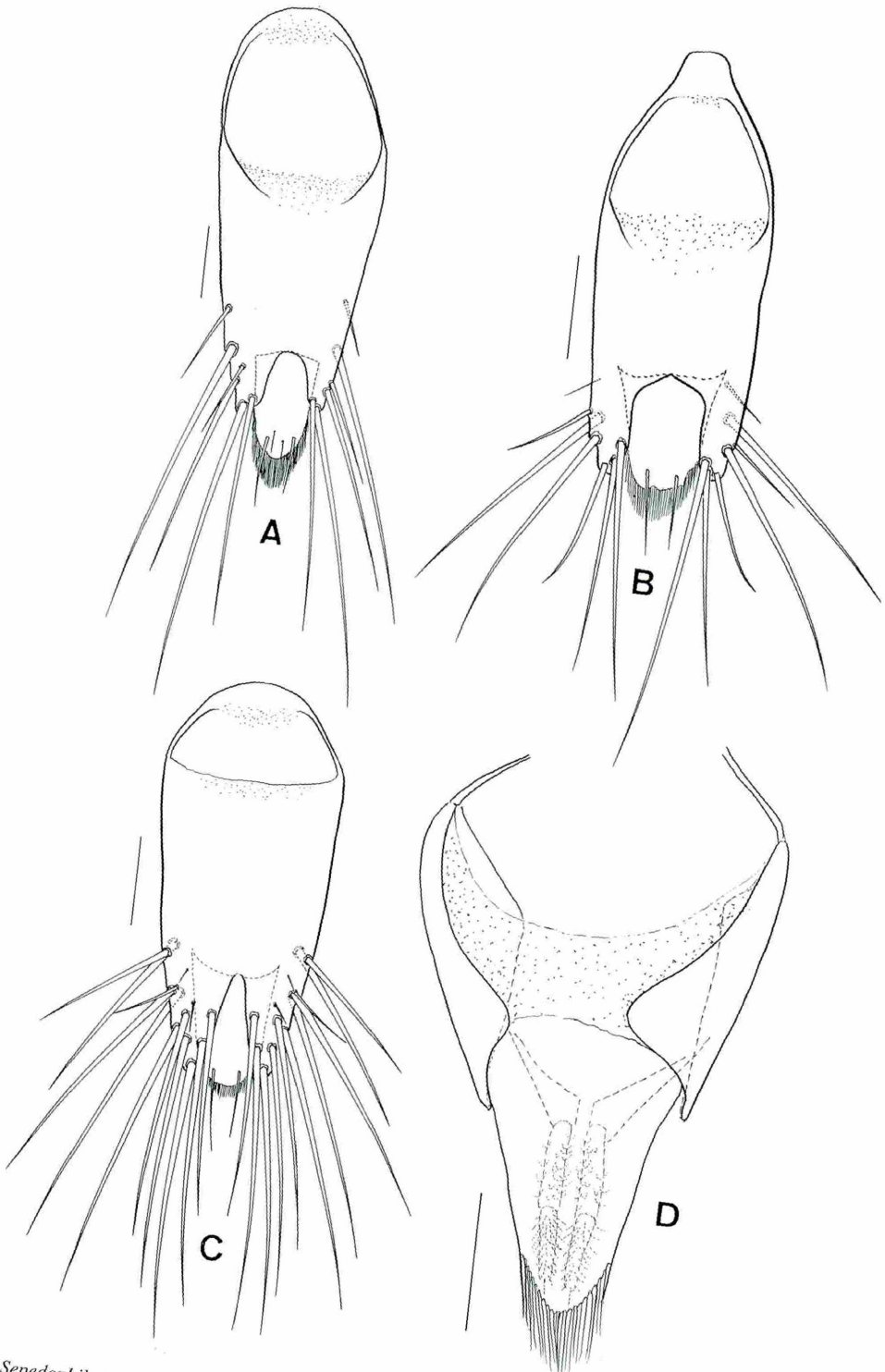

Fig. 5, *Sepedophilus* spp. A, D, *Sepedophilus glabratus* sp. nov.; B, *S. exiguus* sp. nov.; C, *S. elegantissimus* sp. nov. A-C, Ninth and 10th tergites of male; D, abdominal terminalia of female. Scale: 0.1 mm.

Abdomen with pubescence moderately dense, thin; microsculptures faintly incompletely imbricate; chaetotaxy on 3rd to 6th tergites 0-1-1-1; 7th tergite without bristle.

Male. Eighth tergite (Fig. 4 A) rounded at posterior margin, with 5 long bristles; 8th sternite (Fig. 4 D) with a moderately large and deeply arcuate emargination, 5 long bristles; 9th tergite (Fig. 5 C) continuous, apical lobes narrowly separated, with 10 long and 1 short bristles; 9th sternite (Fig.4 C) with 2 bristles; 10th tergite (Fig. 5 C) with 1 bristle. Aedeagus (Fig. 4 F) with median lobed elongate-ovoidal basally, internal structure with a straight and thin basal tube, a rectangular sclerite and an apical stalky and straight sclerite in addition to the area set with dense setae; parameres each with apical part very broad and almost rounded.

Female. Eighth tergite (Fig. 4 B) with inner lobe as long as outer lobe, median emargination narrow, not extending anteriorly to the base of lateral emargination, 10 long and 1 short bristles in addition to 2 sensory setae; 8th sternite (Fig. 4 E) entire, with 5 long and 2 short bristles in addition to 5 sensory setae.

Type series. Holotype: ♂ (Type No., CBM-ZI 34433), Mt. Yonaha (400 m), Kunigami-son, Okinawa Is., Nansei Isls., 20. X. 1987, M. SAKAI leg. Paratypes, Nansei Isls.: 1 ♀, same data as in holotype; 1♀, Hiji fall, Kunigami-son, Okinawa Is., 22. X. 1987, M. SAKAI leg.; 1 ex., Ooura, Nago-shi, Okinawa Is., 8. VII. 1993, M. KIMURA leg.

Distribution. Japan (Nansei Isls.: Okinawa Is.).

Remarks. *Sepedophilus elegantissimus* sp. nov. is allied to *S. exiguus* sp. nov., but is easily separable from the latter by the characters mentioned in the key.

Specimen measured is the paratype (Hiji, Okinawa).

Etymology. The specific name means "the most beautiful".

Acknowledgements

We would like to thank our colleagues who skillfully collected the interesting *Sepedophilus* described in this paper. This study was partially supported by Grant-in-aid for the Scientific Research C, the Ministry of Educations, Science, Sports & Culture, Japanese Government. (No. 09640831).

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NAOMI, S. and M. MARUYAMA. 1997. Revision of the genus *Sepedophilus* GISTEL (Coleoptera: Staphylinidae: Tachyporinae) from Japan: species group of *S. armatus* (SHARP). *Jpn. J. syst. Ent.* **3**: 239-257.

SHARP, D. 1888. The Staphylinidae of Japan. *Ann. Mag. nat. Hist.*, Ser.**6**, 2: 277-295, 369-387, 451-464.

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Ent. Rev. Japan, 52(2): 73-78, Dec. 15, 1997

Redescriptions of Two Interesting Species of the Genus *Sepedophilus* GISTEL (Coleoptera: Staphylinidae) from Japan[1)]

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Abstract *Sepedophilus simulans* NAKANE et SAWADA (1960) and *S. tristiculus* (WEISE, 1877) are redescribed, and the aedeagus and the apical segments of abdomen are illustrated.

Sepedophilus simulans was first described by NAKANE and SAWADA (1960) based on 1 male and 1 female from Yaku Island, Kagoshima Pref. After that, WATANABE (1974) reported this species from Tsushima Island. On the other hand, *Sepedophilus tristiculus* was originally described by WEISE (1877) under the name of *Conosoma tristiculum*; it was described based on 6 males and 1 female from "Hagi", Yamaguchi Pref. ? (WEISE, 1877; see also SCHÜLKE, 1995). After that this species was reported from various localities of Japan according to SHIBATA (1985); SCHÜLKE (1995) reported this species also from East Siberia (Primorie).

Although there are several reports for these two species as mentioned above, their morphologies have been little illustrated except for the aedeagus of *S. tristiculus* in SCHÜLKE (1995). Thus we revised these two species in this paper, with the detailed redescriptions and the illustrations concerning the aedeagus and the apical segments of abdomen. For the parts of body measured and the abbreviations used in the text, see NAOMI and MARUYAMA (1997). In the figures the arrow indicates the sensory seta.

Sepedophilus simulans NAKANE et SAWADA

(Figs. 1; 2. E, F)

Sepedophilus simulans NAKANE et SAWADA, 1960, Sci. Rep. Kyoto Pref. Univ., 3A:124; SHIBATA, 1985, Ann. Bull. Nichidai Sanko, (23): 43.

Male and female. Fore part 1.82-1.90 mm in length, weakly shining, with relative pro-

1) Taxonomic study on the subfamily Tachyporinae from Japan, 4.

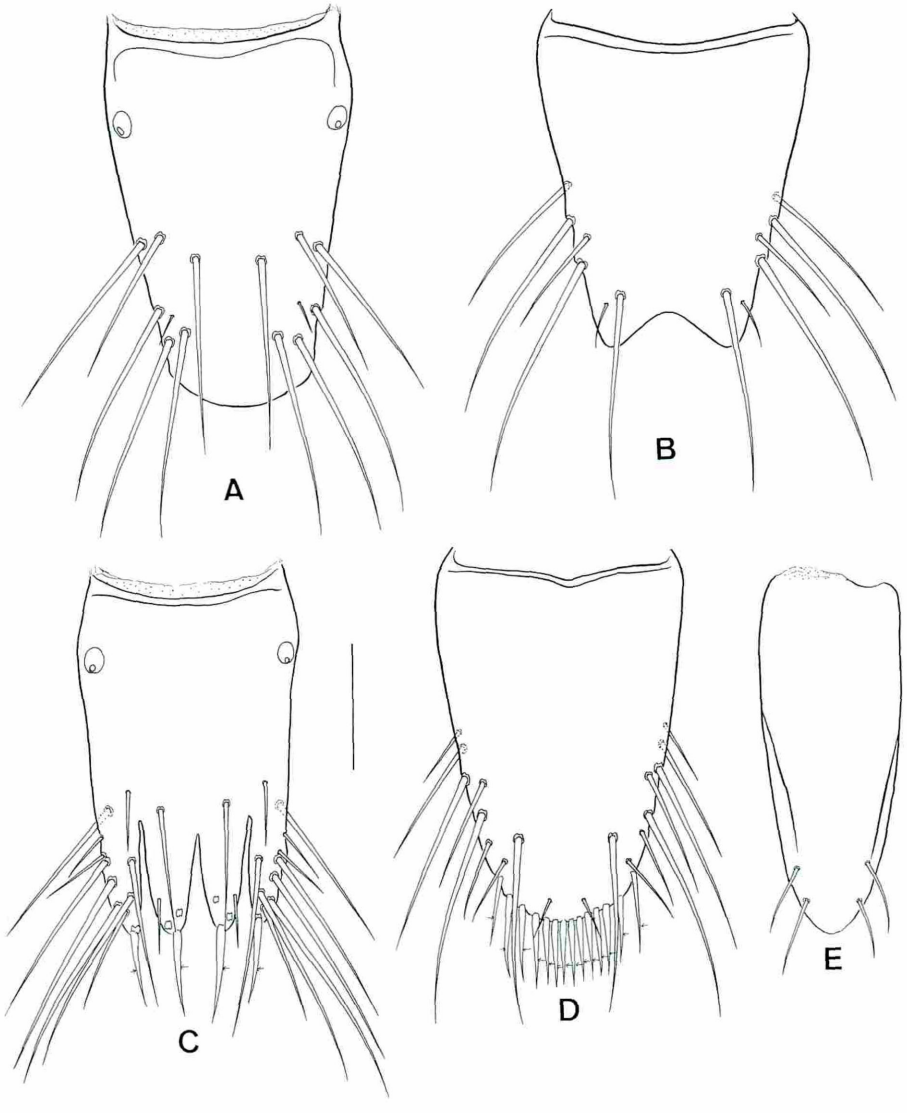

Fig. 1. *Sepedophilus simulans* NAKANE et SAWADA. A, Eighth tergite of male; B, 8th sternite of male; C, 8th tergite of female; D, 8th sternite of female; E, 9th sternite of male. Scale: 0.2 mm.

portions: HL: 10; HW: 15; PL: 22; PW: 27.5; SL: 23; EW: 28. Head dark brown, with clypeal area reddish brown; pronotum dark reddish brown, with marginal area reddish brown and somewhat transparent; elytra reddish brown, with a pair of dark brown markings which are situated almost behind the middle, large and somewhat indistinct in outline; abdomen reddish brown, 6th segment dark brown; antennae with 1st to 3rd segments pale yellowish brown, shining, 4th to 11th segments dark brown, weakly shining; mouth parts and legs yellowish brown to reddish brown.

Head with frontoclypeal suture complete and relatively thick, midcranial suture very short; eyes weakly convex, shorter than 2nd and 3rd antennal segments combined (6 : 8); pubescence

very sparse; surface without microsculpture; antennae moderate in length, 3rd to 11th segments becoming gradually broader apically, 5th almost triangular, 10th almost ovoidal, about as long as broad, 11th rather large, asymmetrical, and pointed, with ALP: 9 : 6 : 6.5 : 5 : 5 : 5 : 5 : 5 : 5 : 5.5 : 12.

Pronotum well convex above, moderately broadened posteriorly, basal margin regularly rounded, posterolateral corners almost rectangular, narrowly rounded; pubescence dense, short; surface without microsculpture.

Fore legs with coxae bearing several apical setae; tibiae ventrally with a transverse row of 5 setae near apex, 1 thick spur occurring at the internal side of those setae, ventrally with a yellow ctenidium in almost full length of tibia; 1st to 3rd tarsomeres dilated. Mid legs with coxae bearing a row of about 5 setae; femora with 1 long and 2 short apicoventral setae; tibiae with 4 setae, 1 long apical spur, and fimbriate setae at apical margin. Hind legs with femora bearing 1 long apicoventral seta; tibiae with 2 short setae, 1 moderately long apical spur, and fimbriate setae at apical margin; tarsi slender, with TLP: 13 : 6 : 6 : 4 : 9.

Elytra broadest in anterior 1/4, then narrowed posteriorly, conjoint hind margins very weakly broadly emarginate; epipleura subacute, with outer margin a little higher than inner margin only in posterior part; pubescence as on pronotum; microsculpture regularly imbricate.

Abdomen with pubescence very thin, short, dense; microsculpture densely check-striped, distinct and regular; 3rd tergite with a short bristle; chaetotaxy on 3rd to 6th tergites 0-1-1-1; 7th tergite without bristles.

Male. Eighth tergite (Fig. 1 A) with 6 long and 1 short bristles; 8th sternite (Fig. 1 B) with a deeply arcuate emargination, 5 long and 1 short bristles; 9th tergite (Fig. 2 E) continuous, apical lobes moderately separated, with 8 long and 5 short bristles; 9th sternite (Fig. 1 E) with two bristles; 10th tergite (Fig. 2 E) with 1 bristle. Aedeagus (Fig. 2 F) with median lobe elongate-ovoidal in basal part, tuberculate near the middle of ventral part; internal structure with a thin basal tube, a rectangular sclerite, and an apico-median straight and stalky sclerite with its setiferous base in addition to the paired setose areas; parameres extending posteriorly beyond apex of median lobe, each more or less compressed dorso-ventrally at apex.

Female. Eighth tergite (Fig. 1 C) with inner lobe moderate in length, about as long as outer lobe, median emargination narrow and very deep, but a little shallower than lateral emargination, with 10 long and 4 short bristles in addition to 2 sensory setae; 8th sternite (Fig. 1 D) entire, with 5 long and 4 short bristles in addition to 7 sensory setae.

Type material examined. The 2 type specimens deposited in the National Science Museum, Tokyo are labelled as follows: Holotype, male, '54 APR 20/ HOLOTYPE/ *Sepedophilus simulans* Nak. et Saw. Det. T. Nakane 1960; allotype, female, '54 APR 20/ ALLOTYPE/ *Sepedophilus simulans* Nak. et Saw., Det. T. Nakane 1960 (see NAKANE and SAWADA, 1960 for type-locality).

Further specimen examined. 1 ♂, Mt. Hiko, Fukuoka Pref., 27. viii. 1988, S. NOMURA leg.

Distribution. Japan (Kyushu, Tsushima Is., Yaku Is.).

Remarks. Specimen measured is the holotype.

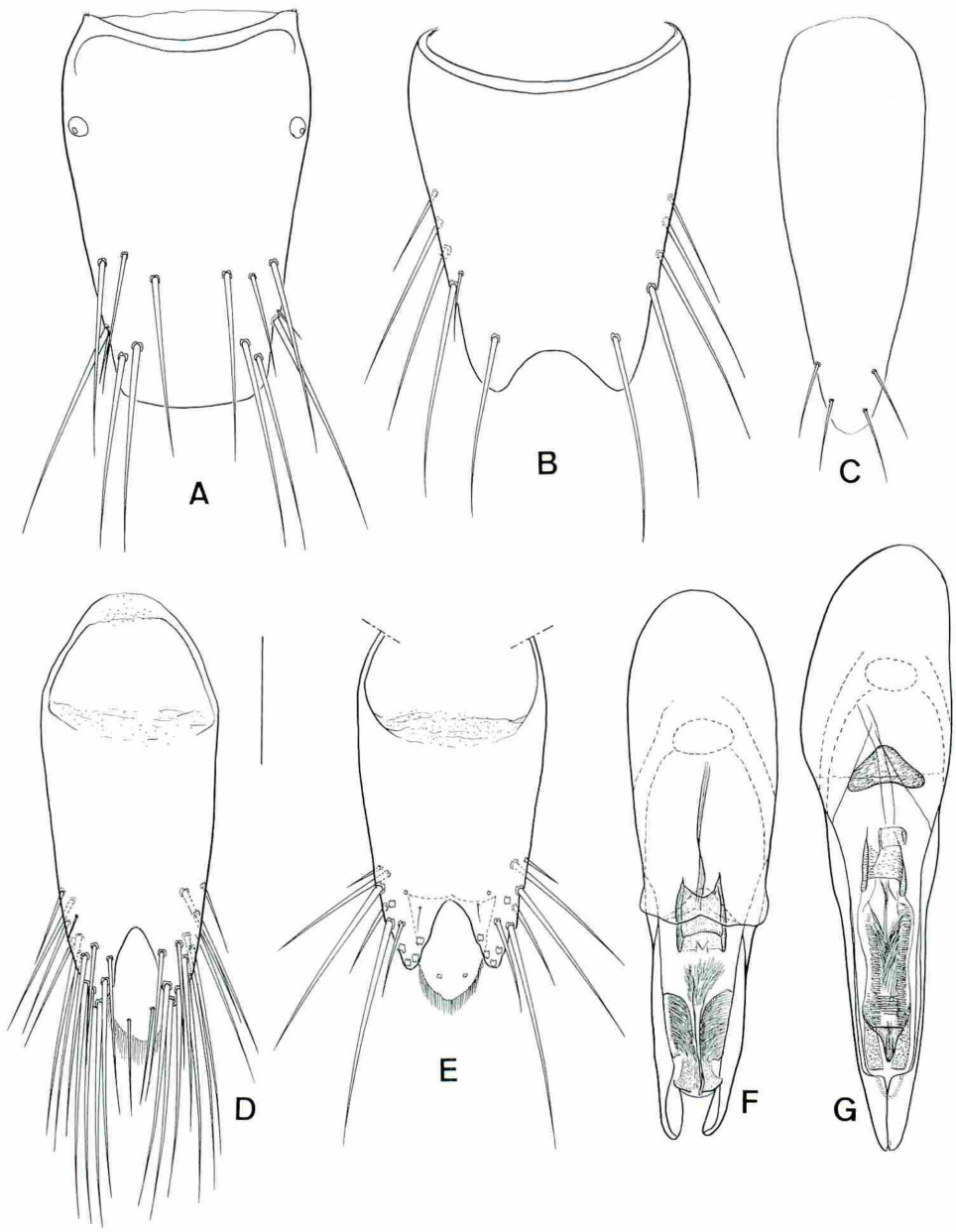

Fig. 2, *Sepedophilus* spp. A-D, G, *Sepedophilus tristiculus* (WEISE); E-F, *S. simulans* NAKANE et SAWADA. A, Eighth tergite of male; B, 8th sternite of male; C, 9th sternite of male; D-E, 9th and 10th tergites of male; F-G, aedeagus. Scale: 0.2 mm.

Sepedophilus tristiculus (WEISE)

(Figs. 2. A-D,G)

Conosoma tristiculum WEISE, 1877, Deuts. ent. Z., 21: 92; SHARP, 1888, Ann. Mag. nat. Hist., Ser. 6, 2: 455; BERNHAUER et SCHUBERT, 1916, Coleopt. Cat., (67): 471; ADACHI, 1957, J. Toyo Univ., (11): 24.
Sepedophilus tristiculus: SHIBATA, 1985, Ann. Bull. Nichidai Sanko, (23): 44; SCHÜLKE, 1995, Kol. Rund., 65: 35.

Male. Fore part 1.88-2.08 mm in length, moderately shining, with relative length: HL: 10; HW: 16; PL: 23; PW: 29; SL: 24; EW: 30. Head dark brown, with reddish brown clypeal area; pronotum dark brown, with posterior marginal area reddish brown, somewhat transparent; elytra dark brown (basal part reddish brown in teneral specimen); abdomen dark brown, with posterior marginal area of each segment pale yellowish brown and somewhat transparent; antennae with 3 or 4 basal segments yellowish brown, apical segments dark brown, the 11th somewhat paler; mouth parts yellowish brown; legs reddish brown to brown.

Head with complete frontoclypeal suture and a long and thin midcranial suture, eyes weakly convex, a little longer than 2nd and 3rd antennal segments combined (14 : 13); pubescence sparse, suberect, a little sparser than that on pronotum; microsculpture very vague or absent; antennae slender, becoming weakly broader apically, 10th segment a little broader than long, with ALP: 8 : 7 : 7 : 6.5 : 6 : 6 : 5.5 : 5 : 5 : 5.5 : 9.

Pronotum well convex above, broadened posteriorly, basal margin weakly and almost regularly rounded, posterolateral corners hardly protruding posteriorly, narrowly rounded (or obtusely angulate); pubescence dense, short; surface without microsculpture.

Fore legs with coxae covered internally with thick and sparse setae; femora with small apicoventral setae; tibiae internally with 3 setae, ventrally with an oblique row of 4 setae near apex, and a thick and short spur occurring at the internal side of its row, externally with yellow long ctenidium which occupies the almost full length of tibia; 1st tarsomere moderately dilated, a little broader than 2nd, 2nd narrowed basally, 3rd about 4/5 the breadth of 2nd. Mid legs with coxae bearing a row of 3 or 4 setae of various lengths; femora with 1 very long and 2 short apicoventral setae; tibiae with 8 setae, 1 long and 1 short apical spurs, and fimbriate setae at apical margin. Hind leg with femur bearing 1 very long apicoventral seta; tibia with about 5 minute setae, 1 long apical spur, fimbriate setae at apical margin; tarsi with TLP: 27 : 14 : 12 : 8 : 17.

Elytra weakly narrowed posteriorly, very weakly rounded laterally, conjoint posterior margins very shallowly V-shaped; epipleura almost horizontal, but outer margin a little higher than inner margin only in posterior part; pubescence similar to that on pronotum; microsculpture faintly imbricate.

Abdomen strongly narrowing posteriorly; pubescence a little shorter than that on elytra; chaetotaxy on 3rd to 6th tergites 0-1-1-1; 7th tergite without bristles; 8th tergite (Fig. 2 A) obtusely angulate posterolaterally, very weakly rounded at posterior margin, with 6 long and 1 short bristles; 8th sternite (Fig. 2 B) with a large, moderately deep and arcuate emargination, 5 long and 1 or 0 short bristles; 9th tergite (Fig. 2 D) narrow, continuous, apical lobes moderately separated, with 12 long and 1 short bristles; 9th sternite (Fig. 2 C) regularly narrowed apically, narrowly rounded at apical margin, with 2 bristles; 10th tergite (Fig. 2 D) with 1 bristle. Aedeagus (Fig. 2 G) with median lobe weakly bulbous at base, with a short and almost straight basal tube, a basal broad-triangular sclerite with rounded corners, a rectangular sclerite, paired

median longitudinal bands, and an apical triangular sclerite in addition to the setous area between the longitudinal bands; parameres extending posteriorly beyond apex of median lobe, with apical parts contiguous, broad and horizontally flat.

Female. According to SCHÜLKE (1995), one female is deposited in the Museum für Naturkunde der Humboldt, Berlin, but was not examined in the course of this study.

Type material examined. The lectotype and 3 paralectotypes are labelled as follows: 1 male, Lectotypus *Conosoma tristiculum* Weise 1877 des. M. Schülke 1993/ Japonia /TYPUS/Coll. Weise. /DEI Eberswalde; 3 males, Paralectotypus *Conosoma tristiculum* Weise 1877, des M. Schülke 1993 /Japonia /PARATYP. /Coll. Weise /DEI Eberswalde.

Distribution. Japan (Honshu, Shikoku, Miyake Is., Mikura Is.); East Siberia (Primorie).

Remarks. Specimens measured are the lectotype (for the antennae) and a paralectotype (for the other parts).

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We thank Dr. L. ZERCHE (Deutsches Entomologisches Institut, Eberswalde) and Dr. S. NOMURA (Natural Science Museum, Tokyo) for their kind loan of type material examined in this paper. We also thank Dr. T. NAKANE (Chiba) for his kind advice on this study. This study was partially supported by Grant-in-aid for the Scientific Research C, the Ministry of Educations, Science, Sports & Culture, Japanese Government (No. 09640831).

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原稿作成の要領

A．欧文原稿

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   —1952. The generic names of the beetle family Staphylinidae with an essay on genotypy. Bull. U.S. natn. Mus., 200: i-iv+1-483.
   MüLER, J., 1925. Terzo contributo alla conoscenza del genere Staphylinus L. Boll. Soc.ent.ital., 50: 40-48.
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. HAYASHI 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，— 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(210 x 295) 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．１９９８年度会費５，０００円を早急にお納め下さい．自身の会費納入状況は封筒の宛名の下に記入してあります．宛名ラベル作製の時期の具合によって，納入されているにもかかわらず未納扱されている場合があるようですので，お気付きの方は会計（野村英世：〒590　堺市赤坂台１-１８-５　Tel 0722-98-4066）までご連絡下さい．

会誌の発行について

“昆虫学評論”及び“ねじればね”の発行日は６月１５日と１２月１５日に設定していますが，投稿原稿の審査制の採用により原稿の事前処理に以前より時間がかかり，校正を終えるのが遅れがちで，発行も遅れがちになっています．それで原稿は一応の締切を３月１５日（６月発行に対して），９月１５日（１２月発行に対して）とします．但し事前処理の進行によっては，掲載が遅れることもありますし，早まることもありますのでご了承下さい．

“ねじればね”は今年度３回発行することが出来ました。来年度は４回発行出来る見込みです。“昆虫学評論”は原稿が不足しています。今回も締切を延ばし延ばしでアドバイサーにも大変ご無理お願いしていますが、これ以上無理をお願い出来ませんので、発行期日を守るべく、５２巻２号は２分冊とすることにしました。今回は大変薄いものとなってしまいましたことお詫びいたします。２号の２はなるべく早く発行するつもりです。ご投稿下さる方はなるべく早めにご投稿ください。また、投稿大いに歓迎いたします。

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．

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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）．

和文要約について

５１巻以降“評論”には和文を掲載していませんでしたが、和文の要約を付けてほしいという要望が投稿者からもありますので、問題（特殊な学術用語が打ち出せるかどうか）はあるのですが、５３巻から投稿原稿には和文要約を付けていただきたいと思います。

早く、簡単、便利、しかもきれい。

『エスカル』のりテープ/修正テープ

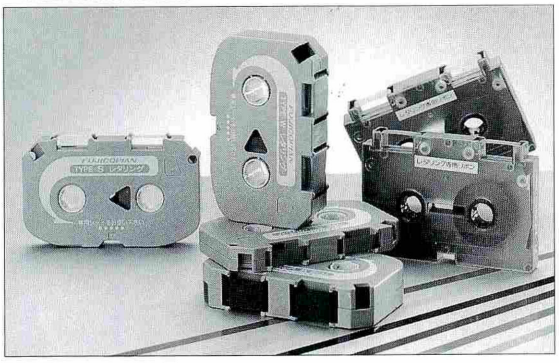
＜のりテープ＞
- 貼りたい部分に当てて引くだけで手を汚さず簡単にムラなく貼れます。
- あらゆる紙に使え、直線、曲線も自由自在に貼れます。
- のり面にホコリが付かないキヤップ付。
- テープ交換はカセット式。つめ換えが簡単です。

寸法：テープ巾8㎜
（のり面5㎜）×長さ10m
色　：ブルー
価格：600円
交換カセット　400円

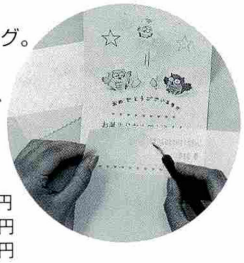
＜修正テープ＞
- 消した上からすぐに書き込めます。
- 修正面がフラットで書きやすい。
- ワープロ、コピー、ファックス、手書きの修正に最適。
- コピーやファックスをした場合、修正個所に影が出ません。
- テープ交換はカセット式。つめ換えが簡単です。

寸法：テープ巾5㎜×長さ7m
色　：ピンク
価格：600円
交換カセット　300円

ワープロ用インスタント『レタリングリボン』

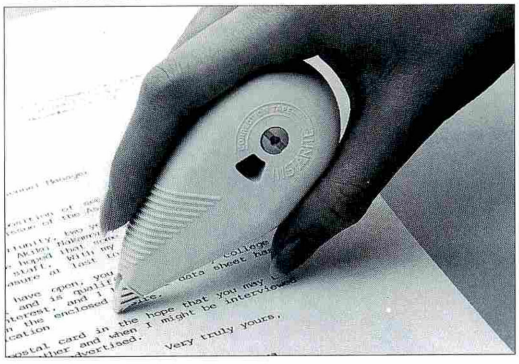


ワープロで打った文字やイラストで、
お好きなところにインスタントレタリング。
- 鮮やかな印字が可能です。
- お手持ちのワープロで印刷した文字、イラストをこするだけできれいに転写できます。



レタリングリボン
タイプS／シャープ書院　価格＝　900円
タイプW　価格＝1,100円
タイプEW　価格＝1,400円
カラー：共に黒・赤・青・緑・金・銀

転写式修正テープ『インスタライト』



- 消した上からすぐに書き込めます。
- 修正面がフラットで書きやすい。
- ワープロ、コピー、ファックス、手書きの修正に最適です。
- コピーやファックスをした場合、修正個所に影が出ません。

寸法：テープ巾5㎜×長さ7m　色：ライトグレー
価格：500円

■テープの色を官製はがきに合わせた「官製はがき用」も取り揃えております。

寸法：テープ巾5㎜×長さ7m　色：ブルーグレー
価格：500円

転写技術のパイオニア

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hhc Eisai
ヒューマン・ヘルスケア企業
エーザイ

一日いれば、くすり博士。

いつの時代にも、どこの国でも、薬は「いつも健康で、長生きしたい」「早く病気をなおしたい」という願いをこめて生み出され、医学とともに進歩してきました。
その薬の歴史を物語る貴重な資料がわかりやすく展示され、だれでも自由に見られるのが「内藤記念くすり博物館」です。
岐阜県川島町のエーザイ川島工園の中にあり、展示や映像や付属薬用植物園などを楽しく見ているうちに、薬に関するいろいろなことを学ぶことができます。
入場無料・月曜日は休館です。

エーザイ川島工園は、自然林を残した約14万坪の敷地の中に製剤工場や研究所や博物館などの建物が点在しており、公園のような工場なので「工園」と名付けました。

内藤記念くすり博物館

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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．

1.. 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．

2. 第三者から論文の複製あるいは転載に関する許諾の要請があり，当会において必要と認めた場合は，執筆者に代わって許諾することがある．

投　稿　規　程

1. 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）．

2. 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．

5. 著者校正は原則として初校のみとする．校正での大幅な変更や追加は認めない．

6. 別刷は 50 部単位で作成し，50 部を学会負担とする．

7. 原稿の送付，問い合わせ先は当分下記とする．

昆虫学評論

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〒666-01　川西市水明台３-１-７３　林　靖彦　Tel 0727-93-3712　FAX 0771-86-0863

ねじればね

〒611　宇治市木幡熊小路１９-３５　水野弘造 Tel 0774-32-4929

〒614　八幡市男山雄徳８　Ｅ７-３０３　伊藤建夫 Tel 075-983-3491

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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