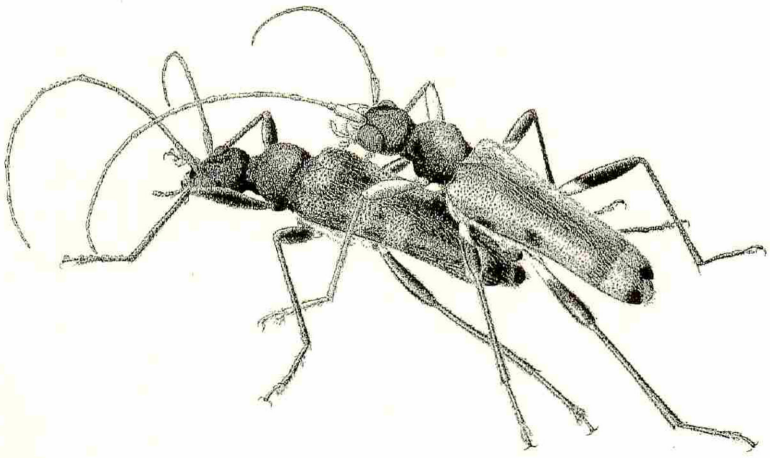
ISSN 0286-9810

Vol. 51 No. 2 Dec. 15, 1996

昆蟲學評論

THE ENTOMOLOGICAL REVIEW OF JAPAN



日 本 甲 蟲 學 會

THE JAPAN COLEOPTEROLOGICAL SOCIETY
OSAKA

The Entomological Review of Japan is published biannually by the Japan Coleopterological Society. We are glad to exchange any publications relating to the study of entomology.

Annual subscription is ¥5,000 for individual members.

Editorial and Business Office
The Japan Coleopterological Society
c/o MASAO HAYASHI
Residence Kotobuki 202
Karita 2-16-5, Sumiyoshi-Ku
Osaka 558, JAPAN

Printed by
Naniwa Insatsu Co. Ltd., Osaka, Japan

Ent. Rev. Japan, 51 (2): 71 - 73, Dec. 15, 1996

A New Species of the Genus *Melanotus* from Japan (Coleoptera: Elateridae, Melanotinae)

Some New Forms of Elateridae in Japan (XXVI)

By TAKASHI KISHII

EG 4-923, Higashiawaji 1-5, Higashiyodogawa-ku, Osaka, 533 Japan

Abstract *Melanotus* (*Melanotus*) *narukawai* is newly described from Mié Prefecture in Japan.

Recently, I have received an interesting example belonging to the genus *Melanotus* through the courtesy of Mr. NOBUYUKI NARUKAWA in Tsu City of Mié Prefecture. It looks like *M. spernendus* CANDÈZE, 1873 at first sight in respect of the elongate and dark brownish body, but it is concluded to be a new species without doubt after careful and comparative examination, and distinct from the related species by the characters in the following description.

Melanotus (*Melanotus*) *narukawai* KISHII sp. nov. (Fig. 1)

"Narukawa- naga- kushi - kometsuki"

Male, 17.75×4.65mm. Rather stout, distinctly elongate and subfusiform, plainly flattened, widest at elytral humeri, then almost straightly narrowing anteriorly as well as posteriorly, and obviously shining all over. Entirely dark reddish brown, with antennae, hind angles of prothorax broadly, scutellum mostly, basal parts of elytra transversely and narrowly, elytral apices vaguely, and legs more or less paler. Pubescence long, tender, entirely recumbent, not so dense and reddish brown with clear golden lustre.

Head (exclusive of eyes) not so broad, broadest at bases of frontal margin, narrowest near the middle, a little broadened at rear corners behind eyes, generally flattened or scarcely and roundly convex above at summit, then feebly declining forwards, plainly transversely and rather deeply concave along frontal edge, and relative breadth across eyes (narrowest width) to each eye in dorsal view as 76:34 (ca. 2.2 times); front margin of frons clearly rounded, definitely marginated through span and a little thickly elevated above at bases; frontal groove broad, shallowly furrowed, faced ahead, and shagreen-likely sculptured all over, with some punctures large and indistinct; antennal sulci circular and not excavated; labrum transversely semicircular, weakly convex forwards, with large coarse and irregular punctures; punctures large, circular, subocellated and dense, but uneven in size, their interstices rather smooth and conspicuously narrower than puncture diameters in general, and partly and obscurely reticulated each other.

Antennae slender, exceeding apices of hind angles of pronotum by one apical joint or more; relative length/width from basal joint to 5th as 39/17: 15/11.5: 23/13.5: 35/19.5 and 38/19.5 respectively (Fig.1-d); basal joint massive, plainly curved and roundly expanded forwards at the middle, 2nd globular, 3rd elongate triangular, 4th to 10th obviously serrate and progressively becoming longer and narrower towards apical joint, and 11th slender and subrhombic.

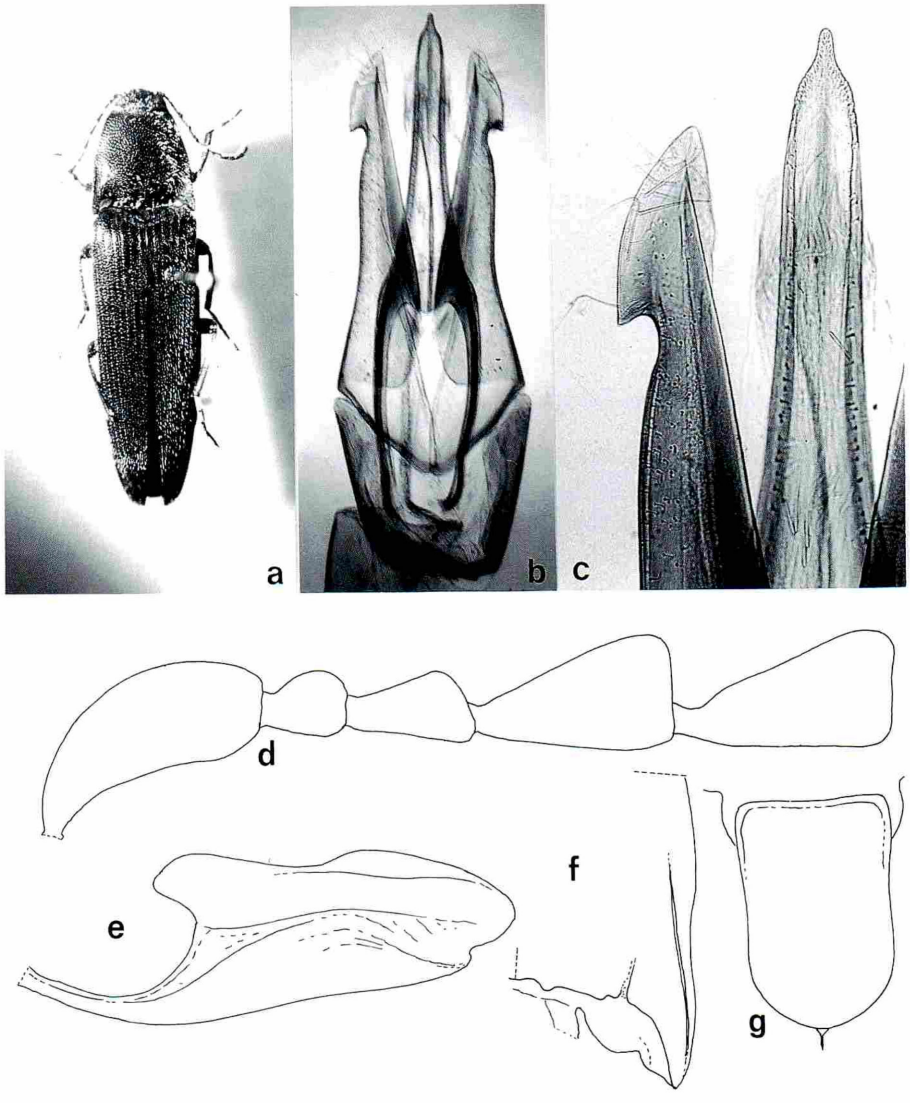


Fig.1. *Melanotus* (*Melanotus*) *narukawai* KISHII sp. nov.; a. Holotype, ♂; b. genitalia; c. ditto, apical part; d. antenna, 5 basal joints; e. prosternal process in profile; f. hind angle of pronotum; g. scutellum.

Pronotum rather trapezoid, weakly and roundly convex above before the middle. without any median line nor furrow, but shallowly and medio-longitudinally depressed at hind slope only, widest across apices of hind angles, then sublinearly narrowing anteriorly, and relative median length to basal width as 92:100; each hind angle (Fig.1-f) not so elongate, thick. hardly divergent postero-laterally, slightly and roundly expanded outwards before apex, which is rather acutely and minutely pointed, with a defined carina along lateral side a little exceeding base of rear corner; each basal furrow not so elongate, notched at base. with a small emargination at interior side of posterior edge; basal slope gently declivous; discal punctures simple, not so large and rather sparse at summit only, then progressively becoming subocellate, larger and denser towards lateral sides, smaller and sparser towards basal slope, and their interstices entirely smooth and distinctly wider than puncture diameters in average at summit, but gradually narrower laterally.

Scutellum (Fig.1-g) tongue-shaped, evenly depressed and a little concave at the middle, and slightly and obliquely declivous forwards; relative median length and width as 38:25; hind end rounded; lateral sides subparallel-sided, but slightly narrowed near the middle; punctures generally large, sparse and obsolescent. and their interstices feebly, finely and nearly shagreened all over.

Elytra elongate, widest at humeri, then gradually narrowing and converging towards apices, which are moderately ended, but feebly and acutely pointed at the apex of suture; humeral angles weakly emarginated at lateral sides and a little carinated; striae fine and not grooved, with small, longitudinally elliptical and discontinual punctures; strial intervals entirely flattened, with punctures exceedingly minute and sparse, and their interstices generally glabrous, but in high magnification obscurely covered with fine transverse and shagreen-like sculptures in part.

Prosternum elongately quadrate, plainly and medio-longitudinally elevated below from between procoxae to near base of fore lobe, with punctures conspicuously large, subocellated, rather dense, but generally irregular in density and size. and their interstices smooth and generally narrower than puncture diameters in average; anterior lobe transversely hemicircular. gently rounded at anterior edge, obliquely declivous antero-inferiorly. Prosterno-pleural sutures narrowest before procoxae, then gradually and divergently extending forwards, entirely glabrous, broadly marginated at pleural sides, and feebly canaliculated at anterior ends. Prosternal process in profile (Fig.1-e) rather thick, moderately curved postero-interiorly behind procoxae, then straightly projecting backwards and feebly emarginated at apex. Propleural punctures simple longitudinally ellipse distinctly denser and smaller than those of prosternum and their interstices wholly smooth. Mesosternal cavity rhombic and weakly concave at the middle. Metasternal punctures similar to those of propleuron, but rather even in density and size. Legs rather slender.

Genitalia as figured (Figs.1-b & 1-c); apex of median lobe conspicuously and acutely projected; apico-lateral expansion of each paramere narrow and elongate, with basal emargination small and rounded.

Female unknown.

Holotype, ♂, Mt. Minamimata-yama in Oh-uchiyama-mura, Mié Prefecture (三重県大内山村南亦山), 18. V. 1995, N. NARUKAWA leg.

Remarks The new species closely resembles *Melanotus* (*Spheniscosomus*) *japonicus* OHIRA, 1974 and *M.* (s.str.) *spernendus* CANDÈZE, 1873 in the general appearance, especially in the size and coloration of the former. But, it is easily distinguishable from these species by the following points: the head (ex. eyes) narrower, strial punctures of the elytra larger and more distinct, the prosternal process in profile and the male genitalia obviously different in the forms. In the outline, it has also some relations to *M.* (s.str.) *liukuiensis* KISHII, 1989 from Taiwan, though the pronotal process of the latter is strongly bent interiorly behind procoxal cavities and the male genitalia is plainly narrower in the apex of the median lobe and apico-lateral expansion of each paramere.

(Received May 16, 1996; Accepted Aug. 7, 1996)

Ent. Rev. Japan, 51 (2): 74, Dec. 15, 1996

第５１巻１号の訂正

昆虫学評論51 (1) に於いても，期日には何としても出そうと言う焦りからパソコンの操作ミスや，多数箇所の編集ミスが出てしまい，特に直海俊一郎氏および木元新作氏の論文の編集に多くのミスが集中してしまい，まことに申し訳なくお詫び申し上げます．編集ミスを無くすべく更にチェック体制を強めてまいります．

（編集委員：林靖彦）

Errata and Corrigenda

Managing Director

In the Entomological Review of Japan 51 (1):

P. 10: line 2~3 in explanation of the figures, for *T.* (s. str.) *zoufari* .... read 5, *T.* (s. str.) *zoufari* ...

P. 23: line 8, for O. taiwanus read *O. taiwanus.*

P. 26: line 2, sperma- theca read spermatheca; line 14, for espéces read espèces; line 15 for espéces read espèces.

原稿作成の要領

A．欧文原稿

1. 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，表題や見出しを含めていかなる場合（人名を除いて）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
   —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．

Ent. Rev. Japan, 51 (2): 75-83, Dec. 15, 1996

Notes on the Species of Staphylinidae (Coleoptera) from Japan XI. Descriptions of Three New Species of the Genus *Ochthephilum* STEPHENS from Japan, with Notice of the Others.

By TATEO ITO

E7-303, Otokoyama Yutoku 8, Yawata, Kyoto, 614 Japan

Abstract This paper treats the species of the genus *Ochthephilum* from Japan. *O. bernhaueri* (CAMERON) and *O. apicatum* (SHARP) are redescribed, the former is excluded from the Japanese fauna and the three new species are described from Japan, *O. kurosai* sp.nov., *O. harusawai* sp.nov. and *O. shibatai* sp.nov.

Ochthephilum bernhaueri (CAMERON) was described from India, and firstly recorded from Japan by KUROSA in 1958. But the Japanese specimens have not been examined in more detail for their identity up to the present. Recently I have had an opportunity of examining the holotype-specimen of *O. bernhaueri.* As the result by comparing the holotype-specimen with many specimens from the several different localities of Japan, it has been found that the Japanese specimens is not *O. bernhaueri* but a new species as described below.

While *Ochthephilum apicatum* (SHARP) was described from Nagasaki, Japan, it has not been examined in detail up to the present. The comparison between *O. apicatum* and *Ochthephilum fluviatile* (CHAMPION) in Thailand suggests that the two species are very closely allied to each other.

In the present paper I would like to redescribe *O. bernhaueri* and *O. apicatum* and describe three new species, *O. kurosai* sp. nov., *O. harusawai* sp. nov. and *O. shibatai* sp.nov.

Ochthephilum bernhaueri (CAMERON) (Figs. 1-4.)

Cryptobium bernhaueri CAMERON, 1924, Trans. ent. Soc .Lond.:196.;— CAMERON, 1931, Fn. Brit. Ind., Col. Staph., II: 239, Fig. 87, pl. 2, fig. 8;— SCHEERPELTZ, 1933, Col. Cat., pars 129 (Staphylinidae VII-Supplement, I): 1293.

Body rather large, shining, black; elytra with apical two-thirds red; mandibles dark reddish brown; antennae, labrum, mouth parts, tibiae and tarsi reddish brown; femora, 8th and 9th of abdominal segments along apical margin brownish yellow. Length : 9.2 mm.

Head large (length/width = 1.10), widened behind, widest at postgenae, coarsely and rather closely punctate; the punctures composed of large umbilicate ones and very fine simple ones, those on frons and apical half of vertex fine, not umbilicate, somewhat irregular in size and sparsely arranged, on the rest apparently close, coarse and umbilicate; mandibles bidentate, bifid at apex of each posterior tooth, anterior tooth of right mandible slightly shorter and robuster than that of the left; eyes prominent, the longitudinal diameter as long as or scarcely longer than half the length of postgena; postgenae distinctly expanded laterad and roundly narrowed to neck; antennae rather robust, not reaching base of pronotum, all the segments longer than wide, 1st segment large, robust, longer than the following four segments together, 3rd a little longer than 2nd and moderately decreasing in length distad, 4th about as long as 5th, 11th pointed at tip, as long as or scarcely longer than 10th. Ventral surface of head irregularly rugulose or sca-

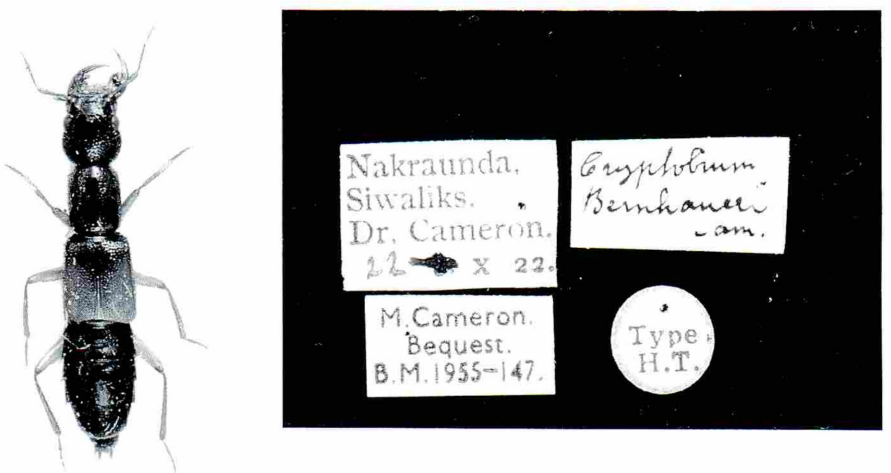
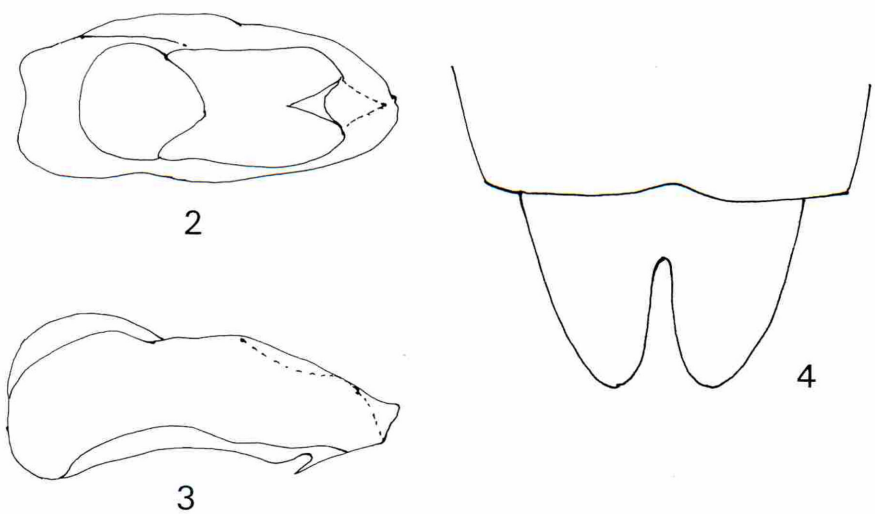


Fig. 1. Holotype-specimen of *Ochthephilum bernhaueri* (CAMERON) and the labels attached with the specimen.

brous, finely and sparsely punctate.

Pronotum oblong, longer than wide (1.22 : 1.0), shorter (0.97 : 1.0) and narrower (0.87 : 1) than head, widest at apical third, from there the lateral sides clearly rounded forward, substraightly narrowed backward, coarsely, rather closely and irregularly punctate roughly except the following four areas: basal narrow area, wide median line from apex to base and external narrow areas which are not reaching apex and separated from median line by a row of closely-set and moderately large punctures; median line scattered with some extremely fine punctures. Scutellum impunctate and shiny.

Elytra slightly widened toward apex, wider (1.33 : 1.0) at the widest point near apex and longer at shoulder than pronotum, coarsely and much closely punctate; the interstices between punctures slightly rugulose and furnished with a scarce microsculpture.



Figs. 2-4. *Ochthephilum bernhaueri* (CAMERON); 2, aedeagus in ventral view; 3, ditto, in lateral view; 4, outline of 7th and 8th sternites in ♂.

Abdomen slightly dilated laterad, with fine and close punctures and a lineolate clear microsculpture; in the male 4th and 5th sternites each with a scarce elevation (such as a plaque) in middle, 7th sternite scarcely depressed along middle, widely and shallowly emarginate in middle of apical margin, and medially with a small triangular impunctate area before the emargination, 8th sternite narrowly and very deeply excised in middle of apical margin, and wholly with impunctate, narrow and feeble depression in front of the excision along middle.

Aedeagus small, rather wide, robust, moderately sclerotized on ventral plate except membranous dorsal side, apical part ventrad with a distinct hook and a small depression near the hook which is relatively large and narrowly triangular and directs behind and whose tip is acutely pointed.

Female not examined.

Specimens examined : 1 ♂, (holotype-specimen of *Cryptobium bernhaueri* CAMERON), "Nakraunda, Siwalisk, Dr.Cameron. 22. X. 22", "*Cryptobium Bernhaueri* Cam.", "Type H.T.", "M. Cameron. Bequest. B. M. 1955-147." (the Natural History Museum, London coll.); 1 ♂, Tunlingsdar, Nepal, IV.1984, MORVAN leg.

Distribution : India (Siwaliks, Mussorie district, Kolhu Khet), Nepal (New record).

Though I have no chance of examining the specimens firstly reported from Japan by K. KUROSA (1958) as *O. bernhaueri*, true *O. bernhaueri* may not occur in Japan, because all the Japanese specimens examined belong to the following species, and misidentification is quite within the bounds of possibility.

Ochthephilum kurosai sp. nov. (Fig. 5)

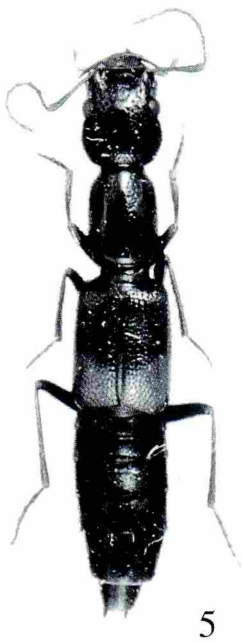


Fig. 5. *Ochthephilum kurosai* sp. nov.

Ochthephilum bernhaueri : KUROSA, (nec CAMERON, 1924),1958, Jap. sanit. Zool., 9 (4): 269; SHIBATA, (nec CAMERON, 1924), 1974, Ann. Bull. Nichidai Sanko, (7): 33; —— 1977, Ann. Bull. Nichidai Sanko, (20): 80; WATANABE, (nec CAMERON,1924), 1985, Coleopt. Jpn. Col., II: 288.

The present species is very close to *O. bernhaueri* in general appearance, but is different by the following distinctions: 7th sternite of abdomen not emarginate at apical margin in middle, apical margin rather finely and scarcely protuberant than substraight in middle, aedeagus a little slenderer and less robust, ventral plate with a distinct circular depression behind the hook, hook relatively wider, head less dilated behind, pronotum proportionally longer (length/width = 1.31), elytra differently punctate, punctures less close, interstices among punctures more shining due to less rugulose and more indefinite aciculate microsculpture, elytra with reddish part narrower and occupied on apical third (sometimes apical two-fifths), femora darker in color, punctures on frons more or less coarser and closer, body rather robuster and longer (body length = 9.7-10.8 mm), antennal segments relatively longer, and so on. It is also similar to the following several allies but is different from *O. paricolor* (EPPELSHEIM) by the pronotum with an impunctate distinct longitudinal smooth area on each side, from *O. sikkimense* (CAMERON) by the head clearly dilated behind and the

elytral reddish markings narrower, from *O. ceylanense* (KRAATZ) by the male 7th abdominal sternite without median emargination at apical margin and the legs not yellow in color and from *O. mirabile* SCHEERPELTZ the tibiae less darker colored, the head more clearly dilated behind, the elytra with narrower reddish areas at apex, and the body apparently larger and robuster.

Holotype: ♂, Maruno-cho, Yamanashi Pref., 11. V. 1991, K. HOSODA leg. (T. SHIBATA coll.). Paratypes: 1 ♂, 1 ♀, same locality as holotype, 12. VI. 1991 and 6. VII. 1992, K. HOSODA leg.; 1 ♀, Joyo, Kyoto Pref., 15. VII. 1992, K. MASAKI leg.; 1 ♂, Ujidawara, Kyoto Pref., 25. VIII. 1993, K. MASAKI leg.; 1 ♀, Ide, Tuzuki-gun, Kyoto Pref., 14. VII. 1984, S. TAKAHASHI leg.; 4 ♂♂, 4 ♀♀, Nibukawa Spa, Tamagawa, Ehime Pref., 16. V. 1992, I. OKAMOTO leg.; 1 ♀, Mt.Tairyuji, Wajiki, Tokushima Pref., 28. VII. 1982, M. YOSHIDA leg.; 1 ♂, Riv. Kumagawa, Kumamoto Pref., 19. VII. 1993, S. IMASAKA leg.; 1 ♂, Aikodake, Yakushima Is., Kagoshima Pref., 26. VII. 1974, H. INOUE leg.

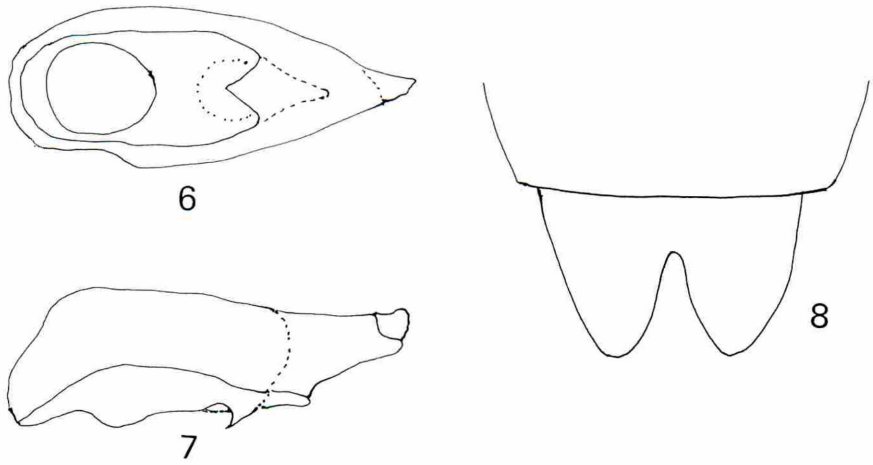
Distribution : Japan (Honshu, Shikoku, Kyushu, Yakushima Is.).

Ochthephilum harusawai sp. nov. (Figs. 6-8.)

Body large, shining, black; apical margin of elytra only narrowly reddish yellow; mandibles dark reddish brown; antennae, labrum, legs, 8th and 9th segments of abdomen at apical extremities reddish brown; mouth parts brownish yellow. Length : 9.2-10.8 mm.

Head large (length/width = 1.13), widened behind, coarsely and rather closely punctate; the punctures on frons and apical half of vertex fine, irregular in size and sparsely arranged, those on the rest close, coarse and umbilicate; mandibles bidentate, bifid at apex of each posterior tooth, the right anterior tooth slightly shorter and more blunt than the left one.

Pronotum oblong, longer than wide (1.34 : 1.0), as long as and narrower (0.84 : 1) than head; disc coarsely, rather closely and irregularly punctate except median wide line from apex to base, the median line accompanied with impunctate external narrow areas as in *O. bernhaueri*, and scattered with some very fine punctures. Scutellum impunctate, with a microsculpture.



Figs. 6-8. *Ochthephilum harusawai* sp. nov.; 6, aedeagus in ventral view; 7, do. in lateral view; 8, outline of 7th and 8th sternites in ♂.

Elytra slightly widened behind, wider (1.41 : 1.0) at the widest point near apex and longer at shoulder than pronotum, coarsely and less closely punctate than in *O. bernhaueri*; the interstices between punctures shining.

Abdomen slightly dilated laterad, with fine close punctures and a lineolate microsculpture; in the male 4th and 5th sternites each with rather distinct elevation as a plaque, 7th sternite scarcely depressed along middle, the apical margin substraight or finely and scarcely protuberant in middle, and submarginal impunctate area very small, 8th sternite rather widely and moderately deeply excised in middle of apical margin, and median impunctate narrow area feebly depressed and not reaching the base.

Aedeagus small, less robust than in *O. bernhaueri*, ventro-apical part with a hook and a clear depression behind the hook, which is rather weak and widely triangular and pointed at tip.

Holotype: ♂, Setouchi (alt. 400m), Amami-Oshima Is., Kagoshima Pref., 3. VII. 1986, K. HARUSAWA leg. (T. SHIBATA coll.). Paratypes: 1 ♂, same data as holotype; 1 ♀, Minamikawa-rindo, Amami-Oshima Is., Kagoshima Pref., 30. VI-5. VII. 1986, I. TANAKA leg.

Distribution : Japan (Amami-Oshima Is.).

The present species is close in general appearance to the preceding two species, *O. bernhaueri* and *O. kurosai*, but it is immediately distinguishable from the latters by the male 8th sternite of abdomen shallowly excised at apical margin in middle, its impunctate median area not reaching the base and the elytra much more narrowly reddish apicad, and moreover from *O. bernhaueri* by the femora darker-colored, the elytral punctures less close and the interstices more shining, the aedeagus less robust and bearing distinct circular depression on ventral plate; from *O. kurosai* by the frons less closely punctate, the antennae less robust and relatively shorter, the male 7th sternite with submarginal impunctate area narrower. It is also separable from *Ochthephilum ceylanense* (KRAATZ) by the elytral reddish marking much narrower, the male 7th sternite not visibly emarginate at apical margin and the coxae not black but the legs darker.

Ochthephilum apicatum (SHARP) (Figs. 9-12.)

Cryptobium apicatum SHARP, 1874, Trans. ent. Soc. Lond.,: 59; ADACHI, 1955, J. Toyo Univ., (7): 33; —— 1957, Ibid. (11): 186; SHIBATA, Ann. Bull. Nichidai Sanko, (20): 80.
Cryptobium (*Monocrypta*) *apicatum*: BERNHAUER & SCHUBERT, 1912, Coleopt. Cat., pars 40 (Staphylinidae III) : 279.
Monocrypta apicata: BLACKWELDER, 1939, Proc. U. S. Mus., 87: 119.

Body rather large, subcylindrical, robust, black, shining; mandibles and apical part of elytra narrowly and definitely reddish brown, some basal segments of antennae brown, the rest of antennal segments, mouth parts and legs sordid yellow, tarsi and tibiae somewhat darkened in color. Length : 8.7 mm.

Head large, oblong (length /width = 1.24), widest at eyes, coarsely, closely and umbilicately punctate except rough- ened frons, the punctures reticulately arranged, the reticulation almost isodiametric on basal half and slightly longitudinal on the other half, mandibles almost symmetrically bidentate near middle of inner sides, eyes prominent, the longitudinal diameter as long as or scarcely shorter than a half the length of postgena, postgenae slightly narrowed behind and rounded to neck, antennae rather slender, generally decreasing in length distad, not reaching the base of pronotum, all the segments fairly longer than wide, 1st segment large, robust, much longer than following four segments together, 2nd to 4th subequal in length to each other, 5th shorter than the preceding and equal to 6th, 7th also shorter than the preceding and longer than the following, 8th to 10th subequal in length to each other, scarcely shorter than

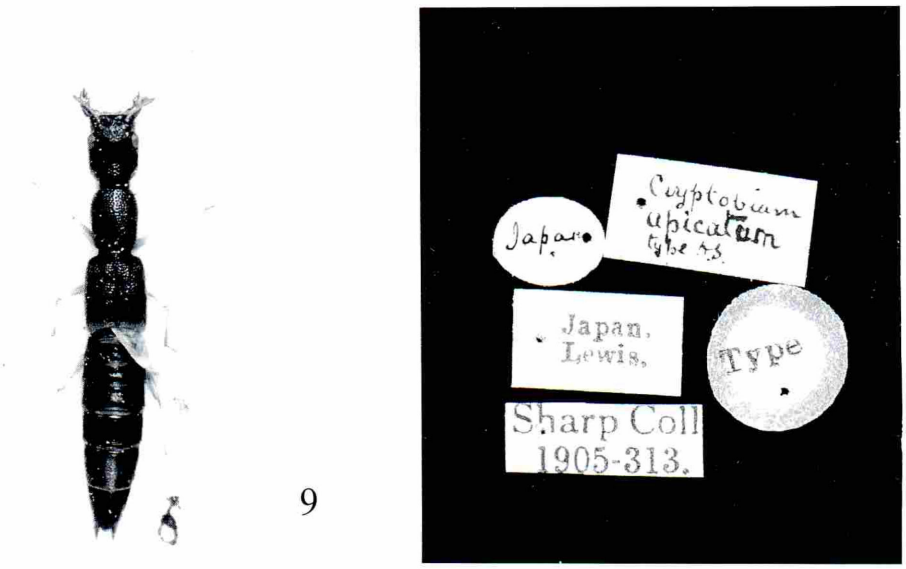
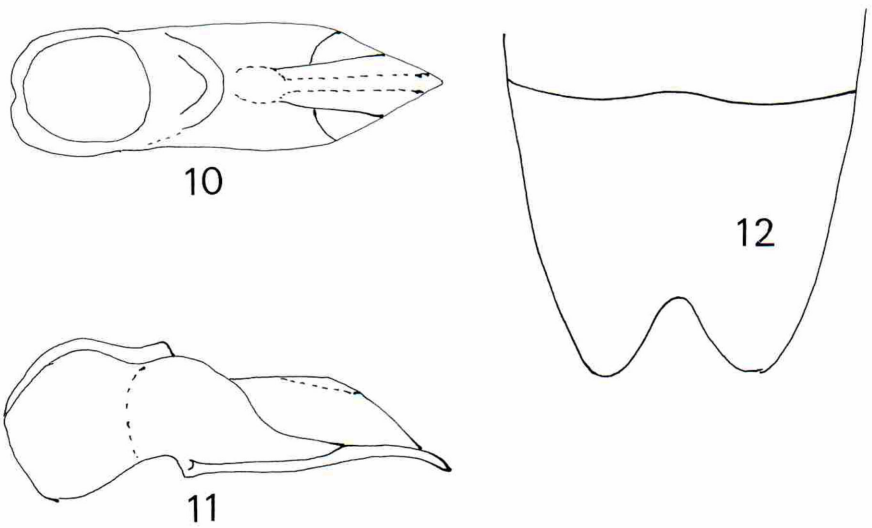


Fig. 9. Holotype-specimen of *Ochthephilum apicatum* (SHARP) and the labels attached with the specimen.



Figs.10-12. *Ochthephilum apicatum* (SHARP); 10, aedeagus in ventral view; 11, do. in lateral view; 12, outline of 7th and 8th sternites in ♂.

7th, 11th pointed at tip, longer than 10th. Ventral surface of head coarsely and sparsely punctate, the interstices of punctures feebly and aciculately microsculptured but rather shining.

Pronotum longer than wide (1.21 : 1.0), shorter (0.89 : 1.0) and narrower (0.91 : 1.0) than head, a little narrowed behind, widest at apical third, from there the lateral sides clearly rounded forward, nearly straightly narrowed backward, coarsely, closely and deeply punctate except narrow median line.

Elytra slightly widened behind, wider at the widest point near apex (1.30 : 1.0) and longer at shoulder than pronotum, coarsely, closely, deeply and finely rugosely punctate.

Abdomen slightly dilated laterad, finely and closely punctate, in the male, 3rd sternite

with basal longitudinal carina very thin and sharp, 4th and 5th sternites each bearing a transverse elevation furnished with short close black hairs across the middle near apical margin, 6th sternite without any specific sexual modifications, 7th sternite with median depression in a shape of key hole along middle, the basal circular depression very deeply foveate and setiferous, the apical one square, shallow and having a small tubercle along middle near apical margin which is widely and weakly emarginate in middle of apical margin, 8th sternite not depressed, rather deeply, widely and triangularly excised in middle of apical margin, while 8th tergite finely excised oppositely.

Aedeagus navicular, weakly curved dorsad at apex, widest at about apical third in dorsal view, dorsal side weakly depressed and subflattened in center, the apex clearly depressed on both sides, distinctly sulcate along middle.

Female unknown.

Specimen examined : 1♂ (holotype-specimen of *Cryptobium apicatum* SHARP),"Japan", "*Cryptobium apicatum* type D.S.", "Type", "Japan./Lewis.","Sharp Coll 1905-313." (the Natural History Museum, London coll.).

Distribution : Japan (Kyushu).

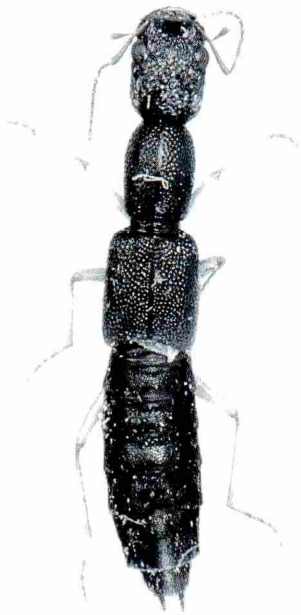
Ochthephilum fluviatile (CHAMPION) (Fig. 13)

Cryptobium fluviatile CHAMPION, 1921, Ent. mon. Mag., 57: 181; CAMERON, 1931, Fn. Brit. India, Col. Staph., II: 244.

Specimens examined : 2♂♂, 2♀♀, Sansai, Chiang Mai, Thailand, 1. V. 1990, T. & N. ITO leg.

Distribution : India (W. Almora, Dehra Dun, Siwalisk), Thailand (new record).

As the present species is very closely allied to *O. apicatum*, I have not been able to find any differences between the two species except that the elytral apical reddish mark in *O. fluviatile* is less definite and the aedeagus in *O. fluviatile* bearing well sclerotized apical part robuster and less slender than in *O. apicatum*.



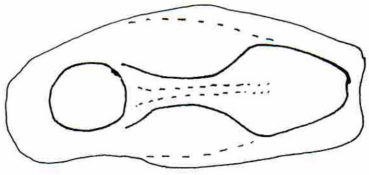
1 3

Fig.13. Specimen of *Ochthephilum fluviatile* (CHAMPION) from Thailand.

Ochthephilum shibatai sp. nov. (Figs. 14-15)

Body relatively small, black, shining (head rather less); mandibles dark reddish brown; mouthparts, labrum, antennae, elytral marginal area and apical margins of the last two segments of abdomen reddish yellow, the middle segments of antennae infuscate; legs yellowish brown, tibiae somewhat darkened in color; pubescence yellowish to blackish brown. Length : 6.0-7.2 mm.

14



15

Figs. 14 & 15. *Ochthephilum shibatai* sp. nov.; 14, Holotype-specimen; 15, aedeagus in ventral view.

Head longer than wide (1.22 : 1.0), moderately widened behind (especially in male), coarsely, closely and umbilicately punctate except for front margin impunctate, the punctures before the level of eyes more or less elongate and rugulose, eyes rather small, but the longitudinal length longer than one-third of postgenae which rounded behind, antennae with penultimate segment scarcely longer than wide. Ventral surface of head closely, not umbilicately punctate, perceptibly and aciculately microsculptured, punctures behind submentum fine, close and becoming sparser toward neck, those on infra antennal areas partially umbilicate.

Pronotum cylindrical, proportionally narrow (length/width = 1.26), much narrower (0.76 : 1.0) and shorter (0.78 : 1.0) than head, with the sides scarcely retracted backward, the punctation less close than on the head, along the middle with an impunctate space.

Elytra slightly widened behind, relatively short, a little longer at shoulder, but rather wider (1.26 : 1) than pronotum, more closely and rugosely punctate.

Abdomen finely and closely punctate on basal segments, more sparingly on apical segments.

In male, 4th sternite with a short transverse keel, 5th sternite with a similar but a little longer keel, 7th sternite with a small fovea in middle near the base, 8th sternite with small and rather shallow triangular excision, sometimes with impunctate line along middle.

Aedeagus rather small, moderately sclerotized on ventral side, slightly arched ventrad in profile, scarcely reversed apicad, shallowly and widely emarginate at apical margin in ventral view and without a distict hook at apex.

Holotype : ♂, Mt. Omoto, Ishigaki Is., Okinawa Pref., 18. VII. 1964, T. ITO leg. (T. SHIBATA coll.). Paratypes: 1 ♂, 1 ♀, same locality as holotype, 29. VII. 1964, T. ITO leg.; 1 ♀, Ishigaki Is., Okinawa Pref., 12. IV. 1963, H. NOMURA leg.

Distribution : Japan (Ishigaki Is.).

The present new species is similar to *Ochthephilum marginatum* (MOTSCHULSKY) in general appearance, but it is easily separable from the latter (specimens from India) by the head distinctly widened behind and the marginal marking of elytra much narrower. And it is distinguished from *O. marginalis* (CAMERON) by the head finely rugosely punctate on apical half, the male 7th abdominal sternite more clearly foveate in middle and the legs darker in color, and also distinguished from *O. submarginatum* (CAMERON) by the apical segments of abdomen with less fine punctures and the aedeagus slightly emarginate at apical margin.

Acknowledgements : I would like to express my indebtedness to Mr. T. SHIBATA (Osaka) and Dr.

K. MORIMOTO (Kyushu Univ.) for their pertinent critical suggestions of the present study on the Staphylinidae, to Drs. K. KUROSA (Tokyo), K. SAWADA (Takatsuki), Y. WATANABE (Tokyo) and L. H. HERMAN (New York) for their giving me invaluable comments about some Japanese and Asian species of Ochthephilum, to Miss E. DE BOISE and Dr. M. J. D. BRENDELL (London) for their kindness in loaning the type and some other specimens, to Messrs. Y. SHIBATA (Tokyo), K. HARUSAWA (Osaka-sayama), G. DE ROUGEMONT (London) and all the gentlemen whose names are printed in the sections of the types for their kindness in offering the material used or referred in this paper, and after all the others to the members of the Osaka Coleopterological Society, especially to Mr. Y. HAYASHI (Kawanishi), for their kindness in some various ways.

Additional references

BERNHAUER, M., 1902. Zur Staphyliniden-Fauna von Ceylon. *Deutsche ent. Zeit.*, 46 : 17-45.

——— 1915. Neue Staphyliniden des sudlichen Ostindiens. *Ent. Blätter*, 11: 251-258.

——— 1941. Neue Staphyliniden aus China. *Ent.Blläter*, 37 : 226-228.

BLACKWELDER, R. E., 1939. A generic revision of the staphylinid beetles of the tribe Paederini. *Proc. U. S. Nat. Mus.*, 87: 93-125.

CAMERON, M., 1914. Description of new species of Staphylinidae from India. *Trans. r. ent. Soc. London*: 525-544.

——— 1924. New species of Staphylinidae from India. *Trans. ent Soc. London*: 160-198.

——— 1932. New species of Staphylinidae from the Malay peninsula. *Bull. Raff. Mus. Singapore*, 7: 124-142.

——— 1936. Fauna Javanica. The Staphylinidae collected by Mr.F.DRESHER. *Tijdshr. Ent.*, 79 : 25- 54.

——— 1949. New species of Staphylinidae from Formosa. *Proc. r. ent. Soc. London*, (B) 18 : 175-176.

CHAMPION, G. C., 1921. Some Indian Coleoptera. *Ent. mon. Mag.*, 57:177-206.

EPPELSHEIM, E., 1986. Neue Staphylinen vom Amur. *Deutsche ent. Zeit.*, XXX(1): 33- 46.

——— 1890. Staphylinidarum species novae, a Domino Dr.BOMFORD in India orientali collectae, descriptae. *Wien.ent. Zeit.*, 9 : 278-280.

——— 1895. Zur Staphylinidenfauna Ostindiens. *Deutsche ent. Zeit.*, : 385-408.

FAUVEL, A., 1904. Staphylinides de l'Hindoustan et de la Birmanie. *Rev. d'Ent.*, 23 : 43-70.

HOZMAN, P., 1985. Beitrag zur Kenntnis westpaläarktischer Arten der Gattung *Cryptobium* MANNERHEIM. *Rev. suisse Zool.*, 92: 311-322.

KUROSA, K., 1958. Study on the life history of *Paederus fuscipes* (CURTIS). *Jap. sanit. Zool.*, 9: 245-276. (In Japanese)

NAOMI, S.-I., 1995. Descriptions of two new species of the subfamily Paederinae (Coleoptera, Staphylinidae) from Japan. *Jpn. J. Syst. Ent.* 1 : 161-168.

SCHEERPELTZ, O., 1979. Studien an den paläarktischen Arten der Gattung *Cryptobium* MANNERHEIM, mit einer Bestimmungstabelle dieser Arten und den Beschreibungen zweiter neuer Arten. *Mitt. münch. ent. Ges.*, 68: 121-143.

——— 1979. Studien an den bisher aus der afrikanisch-madagasischen Faunenregion bekannt gewordenen Arten der alten Grossgattung *Cryptobium* MANNERHEIM. (Paederinae, Staphylinidae, Col.). *Koleopt. Rundschau*, 54: 3-43.

SCHUBERT, K., 1908. Beitrag zur Staphylinidenfauna Ostindiens (West-Himalaya). *Deutsche ent. Zeit.*,: 609-625.

WATANABE,Y., 1979. Two new species of the genus *Ochthephilum* (Coleoptera, Staphylinidae) from Philippines. *Bull. natn. Sci. Mus.* Tokyo, 5 : 43-50.

(Received July 3, 1996; Accepted Aug. 7, 1996)

Ent. Rev. Japan, 51 (2): 84, Dec. 15, 1996

New Records of Japanese Staphylinid Beetles, V (Coleoptera)

By TATEO ITO
E7-303, Otokoyama Yutoku 8, Yawata, Kyoto, 614 Japan

Neobisnius praelongus (GEMMINGER et HAROLD)

Philonthus praelongus GEMMINGER et HAROLD, 1868. Cat. Col. II., Staphylinidae : 591.
Philonthus longulus KRAATZ, 1859. Arch. Naturg. 25: 99.
Neobisnius praelongus: BERNHAUER et SCHUBERT, 1914, Col. Cat. Pars 57 (Staphylinidae IV): 323; CAMERON, 1932, Fn. Brit. India, Col. Staph. III: 57; SCHEERPELTZ, 1933, Col. Cat. Pars 129 (Staphylinidae VII: Suppl.1): 1327; WATANABE et SHIBATA, 1976, Nat. Life S. E. Asia, 7: 332; SHIBATA, 1993, Elytra, Tokyo 21: 318.

Specimens examined : 1♂, Iriomote Is., Okinawa Pref., 27.VII.1962, H. NOMURA leg.; 2♂♂, Sansai, Chiang Mai, Thailand, 1.V.1990, T. & N.ITO leg.; 8♂♂,7♀♀, Maetaeng, Chiang Mai, Thailand, 2.V.1990, T. & N.ITO leg.; 1♂,1♀, ditto, 12.VI.1990, H.KONISHI leg.

Distribution : Japan* (Iriomote Is.*), India, Assam, Thailand*, Malay Peninsula, Penang, Singapore, Java, Philippines and Taiwan (* New record).

Remarks The present species is first reported from Japan and Thailand in this paper.

Ent. Rev. Japan, 51 (2): 85-88, Dec. 15, 1996

Notes on the Species of Staphylinidae (Coleoptera) from Japan XII.
Astenus angulatus (SHARP) and an Allied New Species from Taiwan.

By TATEO ITO

E7-303, Otokoyama Yutoku 8, Yawata, Kyoto, 614 Japan

Abstract This paper treats two species of the genus *Astenus* from Japan and Taiwan. *A. angulatus* (SHARP) from Japan is redescribed and a new species allied to *A. angulatus* is described from Taiwan.

Recently I had an opportunity to examine the holotype-specimen of *Astenus angulatus* (SHARP) which is preserved in the collections of the Natural History Museum in London through the courtesy of Miss EMMA DE BOISE. As the species have been neither examined nor reported in more detail hitherto, I would like to redescribe it with the figures of aedeagus and also to describe a new allied species from Taiwan under the name of *Astenus taiwanus* sp. nov.

Astenus angulatus (SHARP) (Figs. 1-4)

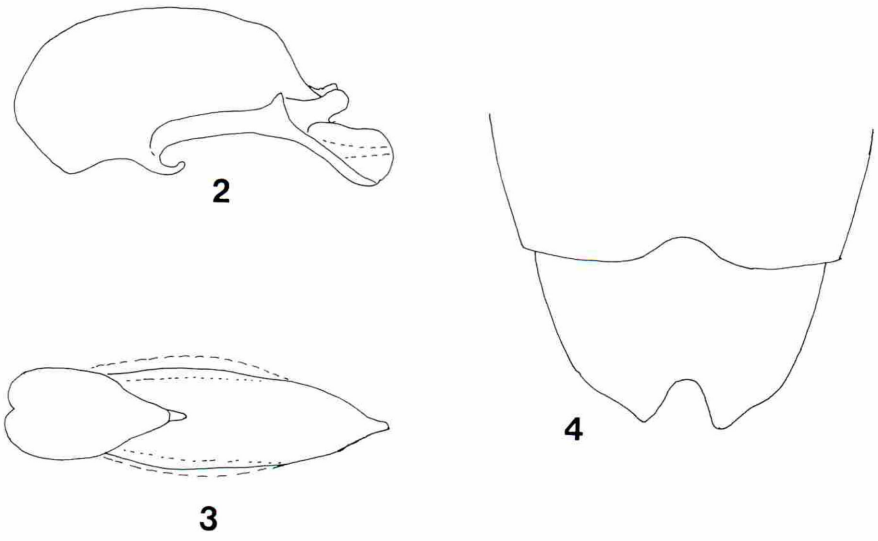
Neognathus angulatus SHARP, 1874, Trans.ent.Soc.Lond., : 70.

Astenus angulatus: BERNHAUER et SCHUBERT, 1912, Coleopt.Cat.,Pars 40 (Staphylinidae III): 213; SCHEERPELTZ, 1933, Coleopt. Cat., Pars 129 (Staphylinidae VII: Suppl.I): 1230; ADACHI, 1955, J.Toyo Univ.,(7) : 18; — 1957, Ibid. (11): 189; SHIBATA, Ann. Bull. Nichidai Sanko, (20): 32.

Body rather small, subcylindrical, black, a little shining; elytra with apical fifth yellowish to reddish brown; labrum and anal styles reddish brown; mouth parts, antennae and legs brownish yellow but some basal segments of antennae slightly darkened; terminal segments of maxillary palpi, apical small parts of femora and four front tibiae more or less infuscate; pubescence on body pale yellow to dark yellow. These coloration various, body dark brown to black, elytra and 3rd to 6th abdominal segments reddish brown, appendices (mouth parts, antennae and legs) sordid yellow. Length (without mandibles and anal styles) : 3.8-4.1 mm.

Fig. 1. *Astenus angulatus* (SHARP). Photograph of the holotype specimen.

Head large, a little longer than wide at the widest point at eyes, coarsely, closely and umbilicately punctate excepting that clypeal area impunctate and postgenae weakly and obsoletely punctate; the interstices among punctures forming clear reticulation; every puncture provided with a very fine tubercle in the middle; labrum uneven, not smooth, slightly emarginate at apical margin on both outsides of denticles; eyes very large, prominent and situated just behind the middle, the longitudinal diameter scarcely longer than postgenae, which are moderately and arcuately narrowed



Figs. 2-4. *Astenus angulatus* (SHARP); 2, Aedeagus in lateral view; 3, do in ventral view; 4, outline of 7th and 8th sternites in ♂.

behind; antennae long, slender, passing base of pronotum, all the segments fairly longer than wide, 1st segment robust, longest but not longer than the following two segments together, and nearly twice as long as 2nd, 4th longer than 3rd and as long as 5th, 6th and 7th subequal in length to each other, scarcely shorter than 5th, 8th to 9th also nearly equal in length to each other, and longer than each of 7th and 10th, 11th slender, not robust, pointed at tip, subequal in length to the 1st and nearly 1.5 times as long as 10th. Ventral surface of head mostly matt owing to very close and coarse umbilicate punctures, but posterior area impunctate and distinctly shiny.

Pronotum longer than wide (1.35 : 1), as long as and narrower (0.79 : 1) than head, widest at apical third, thence lateral sides rapidly constricted apicad, more gradually narrowed basad, lateral margin with about six or seven separate long black bristles, each of which is based on an apparent granule; discal sculpture similar to that on head but a little more coarsely and rugosely arranged on lateral sides.

Elytra oblong, subparallel at sides, very slightly narrowed apicad, scarcely longer than wide at shoulders, a little wider and shorter (0.87 : 1) than pronotum; surface coarsely, rather closely and deeply punctate, the punctures not umbilicate, becoming a little coarser laterad.

Abdomen fairly dilated laterad, basal tergites coarsely, closely and somewhat irregularly punctate, the punctures becoming finer and weaker toward apical segments, sternites more regularly punctate than on tergites. In the male, 7th sternite slightly depressed along middle, widely and semicircularly emarginate in middle of apical margin, 8th sternite narrowly and relatively deeply excised in a V-shape in middle of apical margin, the apical angles of excision slightly protuberant (Fig.4).

Aedeagus almost navicular, moderately sclerotized except membranous dorsal side, clearly arcuate ventrad, not pointed at tip, scarcely constricted at apical fourth in ventral view, apical part provided apparently with two kinds of processes on dorsal side (Figs. 2-3).

Specimens examined : 1 ♂, (holotype-specimen of *Neognathus angulatus* SHARP) "*Neognathus angulatus* mihi D.S.", "Japan, G.LEWIS, 1910-320.", "67" ; 10 ♂♂,2 ♀♀, Shimmura, Amami-Oshima Is., Kagoshima Pref., 30. III. 1966, T. ITO leg.; 2 ♀♀, Asani, Amami-Oshima Is., Kagoshima Pref., 24. III. 1967, H. NOMURA leg.; 9 ♂♂,11 ♀♀,

Kametsu, Tokunoshima Is., Kagoshima Pref., 27.III.1966, T. ITO leg.; 2♂♂, ditto, 27.III.1966, H. NOMURA leg.; 2♂♂, 3♀♀, ditto, 29.III.1966, T. ITO leg.

Distribution : Japan (Kyushu, Amami-Oshima Is.*, Tokunoshima Is.*). (* Newly recorded)

As noted in the original description the present species resembles generally *Astenus pulchellus* (KRAATZ), but it is easily separable from the latter by the following distinctions: especially the different secondary sexual features, the antennae rather longer and slenderer, the elytra a little longer and with lighter color at apex. According to SHARP's original description, the holotype specimen captured in Nagasaki is a darker form. And the other specimens which have been examined in the present time compose of 20 darker forms and 21 paler forms.

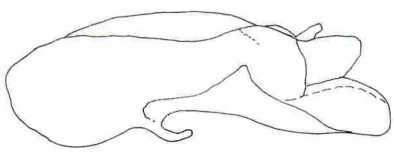
Astenus taiwanus sp. nov. (Figs.5-6)

Body small, rather robust, black, shining; abdomen wholly with 3rd to 6th segments, and elytra narrowly with apical margin yellowish to brownish red; abdominal 8th segment, labrum and anal styles reddish brown; mouth parts, basal segments of antennae yellowish brown, antennal 3rd to 7th segments slightly infuscate; apical segments of antennae and legs sordid yellow, extremities of femora clearly and four fore tibiae slightly darkened in color. Length (without mandibles and anal styli) : 4.0 mm.

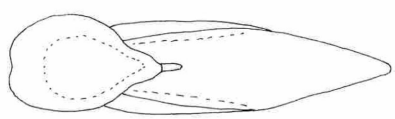
Head scarcely longer than wide, coarsely, closely and umbilicately punctate except impunctate clypeal area; punctures on frons slightly elongate, those near neck somewhat fine and obsolete; eyes large, prominent, with the longitudinal diameter subequal in length to postgena; postgenae arcuately narrowed to neck; antennae relatively robust, short, not reaching base of pronotum, all the segments longer than wide, 1st segment robust, largest but not longer than the following two segments together, 2nd shortest, 3rd longer than 4th, from which to 9th scarcely decreasing in length distad or almost nearly equal in size to each other, 10th a little shorter than the preceding and 11th longer than 10th. Ventral surface of head less coarsely, more closely punctate than on dorsal surface, and with a slightly aciculate microsculpture, punctures on posterior area much more obsolete and almost impunctate.

Pronotum oval, longer than wide (1.18 : 1), as long as and narrower (0.86 :1) than head, widest at apical third, then rapidly narrowed apicad and gradually narrowed basad, provided with seven or eight black bristles on each side; discal sculpture only along the middle similar to that on head but distinctly rugulose mostly on lateral sides.

Elytra clearly expanded laterad, as long as at shoulders and wider at the widest point near middle (1.14 : 1) than pronotum, coarsely, closely and deeply punctate.



5



6

Figs. 5-6. *Astenus taiwanus* sp. nov.; 5, Aedeagus in lateral view; 6, do in ventral view.

Abdomen moderately dilated laterad, with punctures similar to those in the preceding species. In the male, 7th sternite distinctly depressed along middle, apical U-shaped depressed area deep and impunctate, each with a short carina or small tubercle at side just before marginal semicircular emargination, 8th sternite rather deeply excised in a V-shape in middle of apical margin, apical angles of the excision slightly protuberant.

Aedeagus (Fig3. 5-6) similar to that of the preceding species in construction, strongly sclerotized except membranous dorsal side, scarcely curved ventrad, blunter at tip, apical part more elongate.

Female unknown.

Holotype : ♂, Tienhang, Hualien Hsien, Taiwan, 10. IV. 1965, T. ITO leg. (T. SHIBATA coll.).

Distribution : Taiwan.

The present new species is closely related to the preceding species in general appearance, but it is distinguished from the latter by the aedeagus differently shaped, the ventral sclerotized part narrower but robuster, the male 7th abdominal sternite bearing impunctate depression and carina-like tuberculations, the 8th sternite more deeply excised, the sculpture of pronotum mostly rugulose, the abdominal coloration different, the elytra clearly arcuate at lateral sides, the antennae a little shorter and robuster etc.

It is also separable from some allied species as follows : from *A.gratus* CAMERON by the different coloration of pronotum and elytra; from *A. gratellus* (FAUVEL) by the pronotum not longitudinally striate and the 7th sternite in the male more deeply and distinctly emarginate; from *A. varians* CAMERON by the quite different secondary sexual features.

Additional reference

ITO,T. 1995. Notes on the species of Staphylinidae from Japan, VII (Coleoptera) Descriptions of two new species of the genus *Astenus* DEJEAN. *Ent. Rev. Japan*, 50(1) : 27-35.

(Received July 3, 1996; Accepted Aug. 7, 1996)

Ent. Rev. Japan, 51 (2): 89-96, Dec. 15, 1996

A Study on the Elaterid-beetles of SHIBATA Collection from Taiwan, III. (Coleoptera: Elateridae) On the Subfamily Conoderinae

By TAKASHI KISHII

EG 4-923, Higashiawaji 1-5, Higashiyodogawa-ku, Osaka, 533 Japan

Abstract This is the third part of the series dealing with the elaterid-beetles from Taiwan collected by Mr. T. SHIBATA and his colaboraters. Six species of the Conoderinae are reported, of which three taxa are newly described as follows: *Prodrasterius collaris taiwanus* subsp. nov. and *Neodrasterius kiyoyamai* gen. et sp. nov.

Subfamily **Conoderinae**

Tribe Conoderini

Prodrasterius collaris taiwanus KISHII subsp. nov. (Fig. 1)

Prodrasterius brahminus: MIWA, 1929. Trans. nat. Hist. Soc. Formosa, 19 (102): 245 (Laonun in Formosa), nec *Drasterius brahminus* CANDÈZE, 1859; KISHII, 1990. Trans. Essa ent. Soc., Niigata, (70): 17-18, figs.29 & 53 (Liukuei in Taiwan).

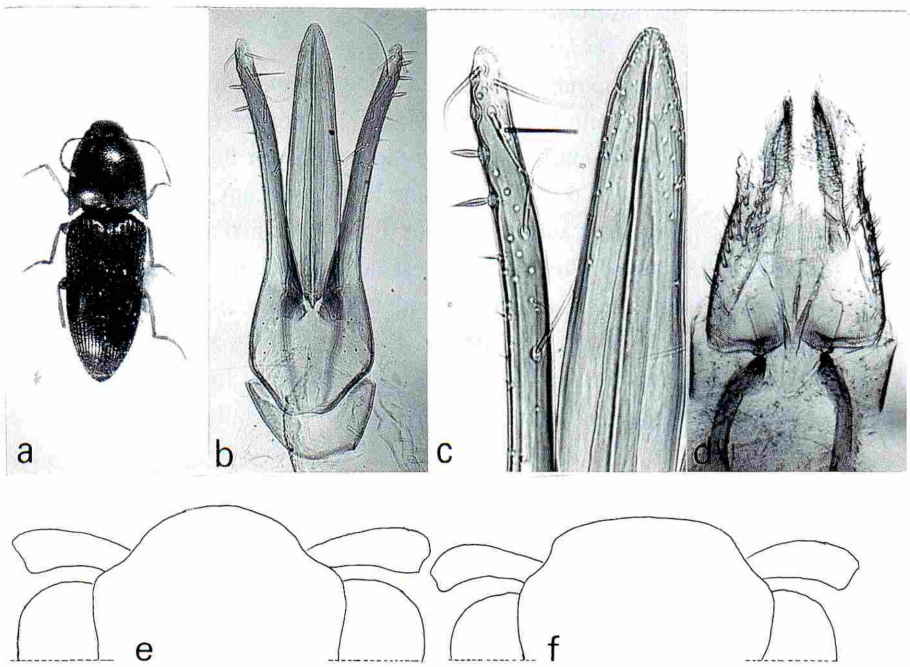


Fig. 1. a to e. *Prodrasterius collaris taiwanus* KISHII subsp. nov. & f. *P. collaris asaokai* OHIRA, 1994 from Is. Ishigaki-jima; a. Holotype, Liukuei, 1. VI. 1987, K. BABA leg., 4.8 mm; b. male genitalia of paratype, Kenting Park; c. ditto; d. paratype, ovipositor, Kenting Park; e. head in dorsal view; f. ditto.

MIWA(1929) and KISHII(1990) reported a Himalayan species: *Drasterius brahminus* CANDÈZE, 1859, from Taiwan as *Prodrasterius brahminus* as cited above. But, as a result of the latest careful examination about many asian conoderine-species, at least the Taiwanese-species used by KISHII should be identified to a species from the northern Hindoustan: *Drasterius collaris* CANDÈZE, 1859. Although, compared with the nominotypical subspecies and another subspecies: *P. collaris asaokai* OHIRA, 1994 from Is. Iriomote-jima, it may be distinguishable by some differences as follows.

Male, 4.8-5.2×1.5-1.7mm; female, 4.3-5.4×1.4-1.8 mm. Frontal edge of frons well developed ahead (Fig.1-e) (slightly expanded only in subsp. *asaokai*: Fig.1-f). Antennal joints 2nd and 3rd relatively small. Hind angles of pronotum rather short and regular triangle-formed. Pronotal punctures a little sparser and smaller than those of other subspecies. Prosternal punctures small and simple, but a little subocellated at lateral sides (in subsp. *asaokai* large and clearly ocellated). Male genitalia as figured (Figs. l-b & l-c); median lobe broadened throughout and rounded at apex. Female ovipositor broad and short as figured (Fig. l-d).

Holotype: ♂, Liu-kuei in Kaohsiung Hsien, 1. VI. 1987, K. BABA leg. (in KISHII's coll.). Paratypes: Kenting Park in Pingtung Hsien, 1♀, 19. V. 1970, Y. KIYOYAMA leg.; ditto, 1♂, 12. VI. 1971, Y. MAEDA leg.; ditto, 1♀, 13. VI. 1972, Y. KIYOYAMA leg.; Is. Lanyu in Taitung Hsien, 2♂♂, 2♀♀, 30. V. 1971, Y. MAEDA leg., at light; ditto, 1♂, 1♀, 17. VII. 1972, Y. MAEDA leg., at light.

Neodrasterius KISHII gen. nov.

This new genus *Neodrasterius* has some similarities to the genus *Prodrasterius* FLEUTIAUX, 1927 (Type-species : *Drasterius brahminus* CANDÈZE, 1859), though the former may be easily distinguishable from the latter by the following structures:

Type-species: *Neodrasterius kiyoyamai* KISHII sp. nov.

Rather robust, elongate, spindle-shaped and rather longitudinally convex above, unicoloured, not maculate on pronotum nor elytra. Mandibles not foveolate at antero-basal part. Antennal joint 2nd shorter and smaller than 4th, and 4th shorter than combined length of 2nd and 3rd together. Posterior edge of pronotum simple, without any basal furrows nor notches near hind angles, which are short and unicarinate. Pronotal punctures irregular in density and size, and generally ill-impressed. Prosternal process not flatly depressed behind procoxae, but a little elevated medio-longitudinaly. Prosterno-pleural sutures closed through total length, vaguely duplicated at pleural sides. The 4th tarsal joint narrowly and plainly dilated at apex. Claws with a distinct seta on each base. Male genitalia with median lobe conspicuously broadened near apex, and lateral lobes not diverging apico-laterally. Female ovipositor broad and short.

Neodrasterius comprises three taxa in two species as follow :

Neodrsterius kiyoyamai sp. nov.

Neodrasterius hisamatsui hisamatsui (OHIRA et SATO) comb. nov.

Prodrasterius hisamatsui hisamatsui OHIRA et SATO, 1964.

Neodrasterius hisamatsui yaeyamensis (KISHII) comb. nov.

Prodrasterius hisamatsui yaeyamensis KISHII, 1972.

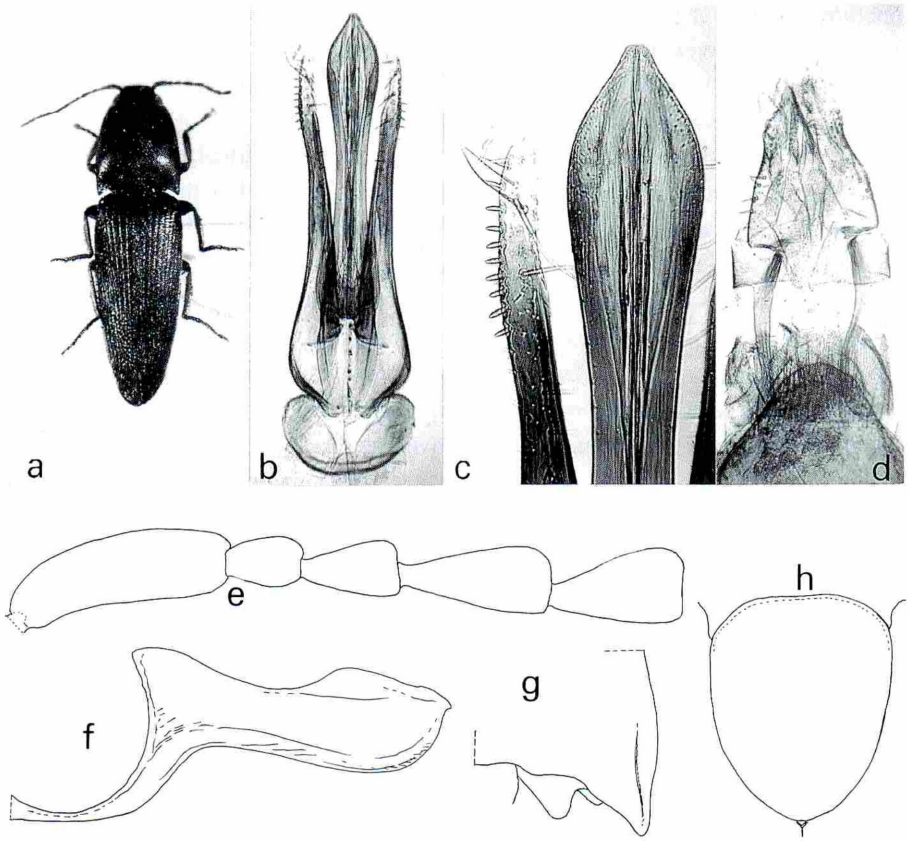


Fig.2. *Neodrasterius kiyoyamai* KISHII gen. et sp. nov.; a. Holotype, ♂, Kenting Park, 28. IX. 1970, Y. KIYOYAMA leg., 6.7 mm; b. male genitalia, holotype; c. ditto; d. ovipositor, paratype; e. 5 basal joints of antenna; f. prosternal process in profile; g. hind angle; h. scutellum.

Neodrasterius kiyoyamai KISHII sp. nov. (Fig. 2)

Male, 6.7×1.8mm; female. 7.6×2.2mm. slightly robust, narrow, rather elongate spindle-shaped. Wholly dark chocolate-brown, but a little paler at hind angles of pronotum and ventral surface, with antennae and legs entirely yellowish brown and generally subopaque all over. Pubescence long, rather dense, recumbent, substraight and golden brown with some lustre.

Head broad, subtrapezoid, widest behind eyes, a little broadened at lateral ends of frontal mar-gin, relative breadth between eyes and each eye in dorsal view as 44 : l0 (4.4 times), rather flat-tened, with a weak medio-longitudinal depression; frontal edge feebly and roundly expanded antero-obliquely, well limited, and slightly emarginated at bases; frontal groove entire, but dis-tinctly narrowed at the middle, faced antero-inferiorly, shallowly and transversely furrowed, with antennal sulci broad and rounded; vertex with punctures simple, rather dense and small, but clearly uneven in density and size, their interstices generally smooth and subequal to

each puncture in diameter in average or a little wider partly. Labrum rather large, faced ahead, hemicircular, a little convex, with rough and dense punctures.

Antennae slender, shorter than combined length of head and prothorax by one apical joint or more; relative length/width from basal joint to 5th as 22/7.5, 7.5/5, l0/5, 15/6.5 and 13/7.5 respectively (Fig.2-e, holotype, male); basal joint elongate, cylindrical and obviously sinuate, 2nd barrel-shaped, 3rd subtriangular, 4th to l0th ill-serrated, and 11th feebly longer than l0th.

Pronotum subspherical, slightly longer than wide (100 : 98), roundly and simply elevated above, without any line nor furrow; lateral sides weakly and roundly expanded outwards near the middle, then progressively and roundly convergent forwards as well as backwards; each hind angle (Fig.2-g) triangular, rather short, bluntly pointed at apex, with a short carination; discal punctures more or less similar to those of vertex, but a little finer and ill-impressed; posterior slope gentle with a transverse depression before hind edge.

Scutellum (Fig.2-h) subtriangular, well convex above at the middle, relative length and width in median dimension as 21.0 : 16.5; surface finely sculptured by dense and minute granules formation. with punctures sparse and small; posterior apex bluntly pointed or subrounded, and anterior margin feebly emarginated.

Elytra elongate, medio-longitudinally convex, widest behind humeri and gently narrowing to beyond the middle, then gradually and roundly convergent towards apices; striae fine, clearly and thinly furrowed, with punctures longitudinally ellipse, rather confluental and deep; strial intervals flattened, with punctures conspicuously fine, rather dense, but plainly irregular in density, and their interstices subglabrous and partly shagreen-like and rugose, especially near bases.

Prosternum oblong trapezoid, weakly and hemicylindrically convex ventrad medio-longitudinally; anterior rim roundly expanded ahead, slightly and obliquely declined, plainly carinate at frontal margin, with hind suture distinctly grooved at lateral parts; punctures a little larger than those of pronotun at the middle, but progressively becoming larger towards lateral boaders, generally uneven in density and size, their interstices generally smooth, but finely and shagreen-likely sculptured at lateral sides in high magnification, feebly wider than puncture in diameter at the middle, but subequal at lateral sides in average. Prosterno-pleural sutures linear, single and entirely closed, but a little broadly smooth at anterior part of pleural edge. Prosternal process obviously narrow, elongate, straight and entirely parallel-sided in ventral view, and in profile (Fig.2-f) conspicuously bent interiorly behind procoxae and straightly extending rearwards, a little broadened near hind end and posterior apex rounded. Propleural punctures clearly smaller and a little sparser than prosternal ones, and their interstices wholly minutely and shagreen-likely sculptured. Mesosternal cavity elongate, parallelsided, horizontal at anterior half, and rather obliquely declined towards posterior end. Metasternal punctures generally ill-definite, rather sparser and a little larger than those of propleura, and their interstices entirely covered by fine and shagreen-like sculpture. Metacoxal plates distinctly and roundly enlarged near each base, then abruptly narrowed and closely extending towards lateral end, which is minutely truncate. Legs moderate; 4th tarsal joint elongately dilated at apex, and claws with a distinct seta on each base.

Male genitalia as figured (Figs. 2-b & 2-c); median lobe obviously broadened near apex; lateral lobes narrow, almost straightly extending backwards and not divergent outwards, with 8 or 9 short projections at outside near each apex.

Female ovipositor plainly broad and short as figured (Fig.2-d).

Holotype, ♂, and a paratype, ♀, Kenting Park in Pingtung Hsien, 28. 1X. 1970, Y. KIYOYAMA leg.

The present new species is somewhat allied to *Prodrasterius hisamatsui* ÔHIRA et SATO, 1964 from the Loochoo Islands in the general outline, but body is smaller, elongate and clearly darker.

Babadrasterius sexpunctatus (MIWA, 1927), comb. nov. (Fig. 3)

Heteroderes 6-punctatus MIWA, 1927, Ins. mats., 2 (1): 15, Pl. 1, fig. 5 (Kyoshito and Rinkiho in Formosa).

Heteroderes sacchari MIWA, 1927, ibid.: 15-16, Pl. 1, fig. 6 (Kyoshito in Formosa).

Prodrasterius 6-punctatus MIWA, var. *4-maculatus* MIWA, 1929, Trans. nat. Hist. Soc. Formosa, 19 (102): 245-246 (Rinkiho, Shinchiku, Musha and Sharoken in Fomosa), 1934.

Prodrasterius 6-punctatus MIWA, var. *immaculatus* MIWA, 1929, ibid.: 246 (Sharoken in Formosa).

Heteroderes triangularis: MIWA, 1930, Wien. ent. Zeit., 47 (2): 97 (Formosa), determined by FLEUTIAUX,1929, nec *Elater triangularis* ESCHSCHOLTZ, 1822; MIWA, 1934, (= KISHII, 1990, Trans. Essa ent. Soc., Niigata, (70): 16-17, fig.57, Liukuei in Taiwan).

Babadrasterius triangularis (in part): ÔHIRA, 1994, Spec. Bull. Essa ent. Soc., (2): 224.

As cited above, in 1929 FLEUTIAUX detemined a conoderine species from Taiwan through MIWA as *Heteroderes triangularis* ESCHSCHOLTZ, which was originally described from the Philippines. The year after, MIWA had synonymized his *Heteroderes 6-punctatus* to this widespread distributer, and in 1990 KISHII also reported *H. triangularis* from Taiwan. In many important structures the examples from Taiwan surely resembles true *H. triangularis*, but this species should be identified to an endemic species to Taiwan after my careful examination. Therefore *H. sexpunctatus* described by MIWA should be resurrected to this taiwanese-species. ÔHIRA (1994) proposed a new genus *Babadrasterius* for *B. urabensis* (type-species) and *H. triangularis* auct. These three species are confirmed to be congeneric to *Babadrasterius* in this study.

The general outline is closely allied to *B. triangularis* (ESCHSCHOLTZ, 1822) from the Southeast Asia or *B. urabensis* ÔHIRA, 1994 from the Loochoos, but may be divisible by the structures as follow:

Female, 4.4-5.6×1.5-1.7mm. Relatively smaller. narrower and elongate spindle-shaped. Elytral maculation distinct and plainly patterned in general. Frontal margin of frons (Fig.3-c) transverse and feebly excavated at the middle. Head punctures simple and even (*B. urabensis*: uneven in density; *B. triangularis*:

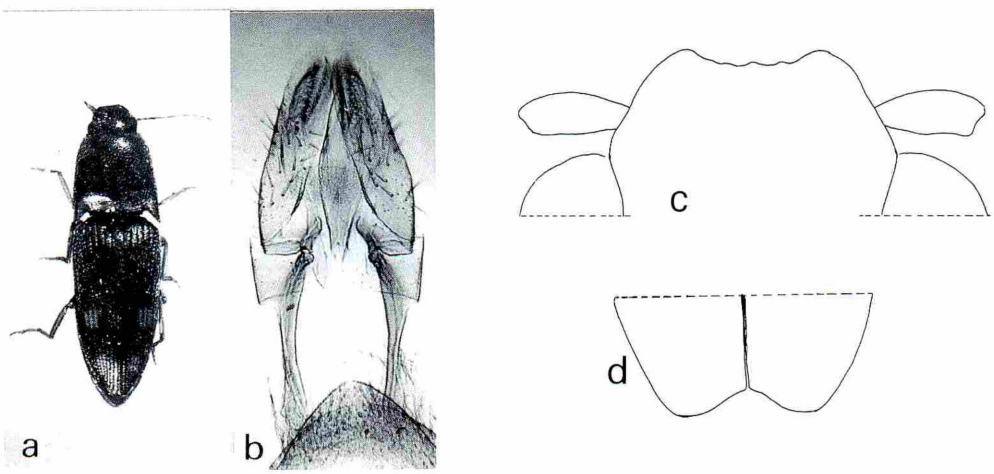


Fig.3. *Babadrasterius sexpunctatus* (MIWA, 1927); a. ♀, Nanshanchi, 1. VII. 1971, Y. MAEDA leg., 5.6 mm; b. ovipositor, ditto; c. head in dorsal view; d. elytral apices.

a little uneven in size and density). Pronotum trapezoidal, not roundly expanded outwards nor parallel-sided. Pronotal punctures exceedingly irregular in density and size. Hind angles of pronotum more or less postero-laterally divergent. Elytral striae plainly and deeply grooved. Elytral apices (Fig.3-d) obviously truncated. Prosternal punctures large, not so dense at the middle, then gently becoming denser towards lateral sides (*B. urabensis*: conspicuously dense and not so large; *B. triangularis*: sparse, large and subocellated at lateral sides). Female ovipositor broad and short as figured (Fig. 3-b).

Specimen examined: 1♀, Nanshanchi, 1. VII. 1971, Y. MAEDA leg., at light.

Heterodères changi ÔHIRA, 1967 (Fig. 4)

Heterodères changi ÔHIRA, 1967, Kontyû, 35 (1): 57, Fig.1, B (Hualien. Formosa) .

Specimen examined: Chipon: 1 ex., 15. VIII. 1970, T. KOBAYASHI leg.; 4 exs., 5. X. 1970, Y. KIYOYAMA leg. Kenting Park: 1 ex. , 3. VIII. 1972, Y. MAEDA leg., at light. Is. Lanyu: 1 ex., 1. VI. 1972, Y. KIYOYAMA leg.; 1 ex., 2. VI. 1972, ditto, at light; 1 ex., 17. VII. 1972, Y. MAEDA leg., at light; Liyutan: 4 exs., 23. VIII. 1970, T. KOBAYASHI leg., at light. Nanshanchi: 3 exs., 7. VI. 1970, Y. KIYOYAMA leg., at light; 1 ex., 23. IX. 1970, ditto, at light; 1 ex., 30. V. 1971, Y. MAEDA leg., at light; 1 ex., 28. VI. 1971, Y. MAEDA leg., at light. Neiwan: 1 ex., 24. VII. 1969, T. KOBAYASHI leg. Roshan: 1 ex., 2. VIII. 1970, T. KOBAYASHI leg. Taitung: 2 exs., 28. V. 1972, Y. KIYOYAMA leg.; 17 exs., 18. Vl. 1972, ditto, at light; Mt. Yangming:1 ex., 2. III. 1970, T. KOBAYASHI leg.; Yuli: 1 ex., 7. VII. 1972, Y. MAEDA leg., at light.

Aeoloderma brachmana (CANDÈZE, 1859) (Fig. 5)

Aeolus brachmana CANDÈZE, 1859. Mon. Elat., 2: (283) & 345 (Hindustan & Ceylon).

Specimen examined: Is.Lanyu: 1♀, 30. V. 1971, Y. MAEDA leg., at light; 1♂, 2. VI. 1971, Y. KIYOYAMA leg., at light; Liukuei: 1♀, 1. V. 1970, Y. KIYOYAMA leg.; Musha: 1♂, 29. VIII. 1970, T. KOBAYASHI leg.; Nanshanchi: 1♀, 24. IX. 1970, Y. KIYOYAMA leg.; 2♀♀, 26. VI. 1972, Y. MAEDA leg., at light.

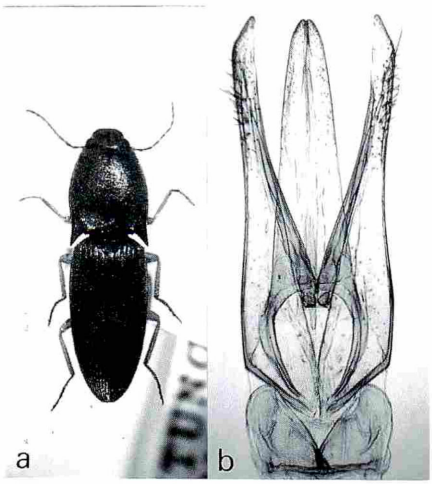


Fig.4. *Heterodères changi* ÔHIRA, 1967; a. ♂, Taitung, 16. VI. 1972, Y. KIYOYAMA leg., 9.5 mm; b. male genitalia, Nanshanchi, 7. VI. 1970, Y. KIYOYAMA leg.

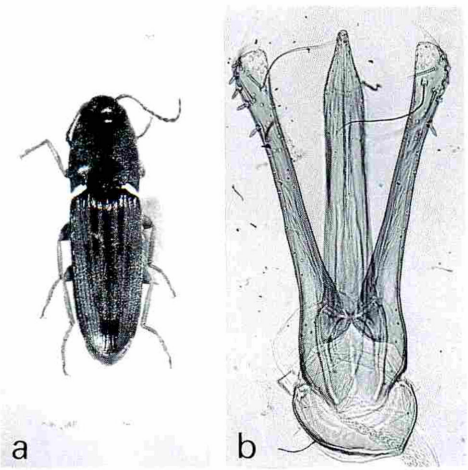


Fig.5. *Aeoloderma brachmana* (CANDÈZE, 1859); a. ♂, Is. Lanyu, 2. VI. 1972, Y. KIYOYAMA leg., 5.1 mm; b. male genitalia, ditto.

Aeoloderma sinensis (CANDÈZE, 1859) (Fig . 6)

Aeolus sinensis CANDÈZE, 1859, Mon. Elat., 2: 283 & 346 (Hongkong).

Specimen examined: Liukuei: 3 ♂♂, 1♀, 1. V. 1970, Y.KIYOYAMA leg.; 1 ♂, 23. VII. 1970, T. KOBAYASHI leg.; 1 ♂, 1♀, 3. X. 1970, Y. KIYOYAMA leg.

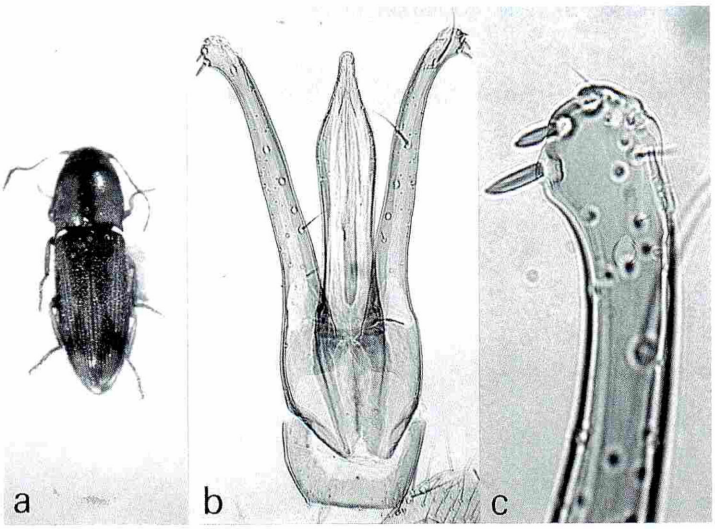


Fig.6. *Aeoloderma sinensis* (CANDÈZE, 1859); a. ♂, Liukuei, 1. V. 1970, Y. KIYOYAMA leg., 4.6 mm; b. male genitalia. ditto; c. apical part of paramere, ditto.

Literatures cited

FLEUTIAUX, M. E., 1918. Contributions à la faune de l'Indo-Chine francaise. *Ann. Soc. ent. Fr.*, 87: 182-278.

———— 1924. Faune entomologique de l'Indochine française. *Opusc. Inst. sci. Indochine*, 2: 68-82.

———— 1928. Les Elaterides de l'Indochine française (Catalogue raisonné). *Encycl. ent. Col.*, 3: 1-75.

岸井　尚, 1990. 台湾のコメツキ(4). 馬場金太郎博士による1986-1989年度採集資料の研究(Elateridae from Taiwan. with descriptions of some new taxa (4) (COLEOPTERA). A study of the materials collected by Dr. Kintaro BABA from 1986 to 1989. *Trans. Essa ent. Soc. Niigata*, (70): 9-39, with English descriptions.

大平仁夫, 1994. 日本産チビコメツキ亜科の属・種について (Notes on the Genera and Species of Conoderinae from Japan). 越佐昆虫同好会特別報告, (2): 217-234, with English summary.

Corrigenda

In the Entomological Review of Japan, 50 (2), pp. 95-108, pls. 7-9, March 1996

(for "A Study on the Elaterid-beetles of SHIBATA Collection from Taiwan, II.).

P. 102: for line 5 to 10 read as follows:

Adelocera ramatasenseni MIWA, 1934, Fauna Elat. Jap. Emp., Dept. agr. Govt. res. Inst., Formosa, 65: 180, Pl. IX, fig. 20 (Musha & Arisan in Formosa).

Funchifo: 1 ♂, May 29, 1970, Y. KIYOYAMA leg.; 1 ex., June 25, 1972, ditto.

Lacon (*Alaotypus*) *kintaroui* KISHII, 1990 (Figs.23 & 27)

Lacon (*Alaotypus*) *kintaroui* KISHII, 1990, Trans. Essa ent. Soc., Niigata, (70): (14) & 24-26, Figs. 5, 21 & 45 (Mt.

Nanfeng near Liukuei in Taiwan).
Nanshanchi: 1♀, May 1, 1971, Y. HAYASHI leg.; 1♀, May 5, 1971, ditto .

P. 103: In the line 6: for (Figs. 20 & 34) read (Figs. 19 & 34).

(Received May 29, 1996: Accepted Oct. 19, 1996)

Ent. Rev. Japan, 51 (2): 97-102, Dec. 15, 1996

Notes on the Chinese Elateridae (3) (Coleoptera)*

By TAKASHI KISHII
EG 4-923, Higashiawaji 1-5, Higashiyodogawa-ku, Osaka, 533 Japan
and
SHI-HONG JIANG
Laboratory of Insect Systematics, Department of Plant Protection,
Huazhong Agricultural University, Wuhan 430070, China

Abstract Eleven species of the subfamily Denticollinae (tribes Senodoniini and Prosternini) are reported, of which three species are newly recorded from China.

VI. Subfamily **Denticollinae** REITTER(2)

Tribe Senodoniini SCHENKLING

39. *Senodonia sculpticollis* (FAIRMAIRE, 1888) (Fig. 1)

Allotrius sculpticollis FAIRMAIRE, 1888, Ann. Soc. ent. France, 1888: 350 (Tonkin).
Hemiolimerus sculpticollis: LIU, 1933, Lingnan Sc. Journ., 11(2): 233 (S. China).
Specimen examined: 1♀, Baishe in Guangxi Prov., 24. VI. 1988, ZHU-YIN WANG leg.
Distr.: S. China & Indochina.

40. *Senodonia quadricollis* (CASTELNAU, 1836) (Fig. 2)

Semiotus (*Senodonia*) *quadricollis* CASTELNAU, 1836, in SILBERMAN, Rev. ent., 4: 12 (Java).
Specimen examined: 1♀, Dongbalin in Guangdong Prov., 10. V. 1992, QIN-XI LI leg.
Distr.: S. China, Indochina, Sumatra & Java. New record to fauna of China.

Tribe Prosternini GISTEL**

41. *Ctenicera cuprea cuprea* (FABRICIUS, 1781) (Fig. 3)

Elater cupreus FABRICIUS, 1781, Spec, Ins. I, Bohn: 268 (England).
Elater aeruginosus FABRICIUS, 1798, Suppl. ent. syst., Hafniae: 139 (Frandre).

* Projects supported by the China National Science Foundation.

** SILFVERBERG (1992) had subsequently published the correct use of Prosternini GISTEL (1856) as the senior name over Corymbitites CANDÈZE (1863) and Ctenicerini FLEUTIAUX (1936), and JOHNSON (1995) ratified also this treatment.

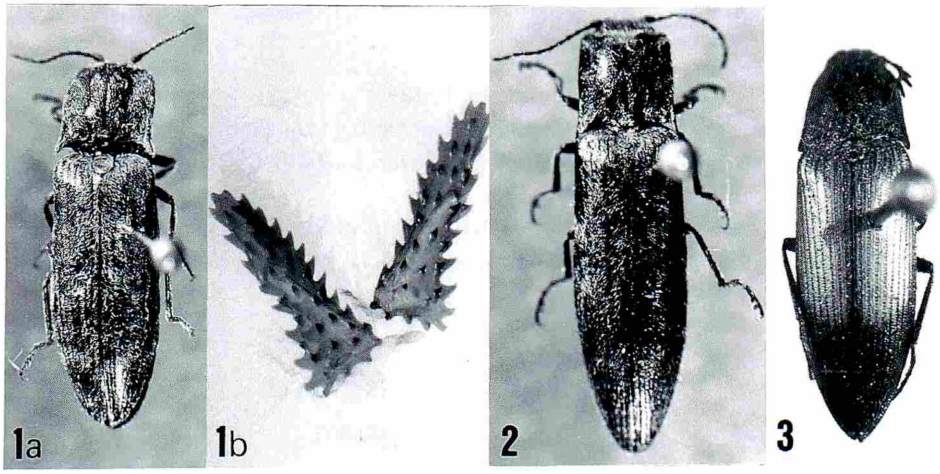
Elater pyrenaeus CHARPENTIER,1825, Horae ent., Wratislawiae: 189 (Pyrenees) .

Elater chalybeus SOWERBY, 1806, Brit. miscell. colour. figs. New, rare or little known anim. subj., London: t. 72 (England).

Elater humeralis DUFOUR, 1843, Bull. Soc. Sci. Paris: 42 (Pyrenees).

Specimen examined: 1 ♂, 1 ♀, Buerjin in Xinjiang Prov., VIII. 1988.

Distr.: Europe to E.Russia, Mongolia & E.China (New to the fauna of China).



Figs . 1-3. 1a. *Senodonia sculpticollis* (FAIRMAIRE, 1888), ♀, Baishe, Guangxi, 24. VI. 1988, Z-Y. WANG leg., 15.5 mm; 1b. Ditto, sclerotic plates in bursa copulatrix; 2. *S. quadricollis* (CASTELNAU, 1836), ♀, Dong-balin, Guangdong, l0. V. 1992, Q-X. LI leg., 18.5 mm; 3. *Ctenicera cuprea cuprea* (FABRICIUS, 1781), ♂, Buerjin, Xinjiang, VIII. 1988, 12.8 mm.

42. *Anostirus* (*Ipostirus*) *boeberi* (GERMAR, 1824) (Fig. 4)

Elater Boeberi GERMAR, 1824, Ins. Spec. Nouv.: 51 (Sibirie).

Elater quadripustulatus FISCHER de WALGHEIM, 1823-1824, Entomogr. imper. Russ., Mosquae, 2: 202 (Sibirie).

Corymbites pacificus MOTSCHULSKY, 1860, in SCHRENK's Reis. Fors. Amurlande 2, Petersbourg: 110 (Kamtschatska).

Corymbites kamtschaticus JAKOBSON, 1913, Käfer. Russl., 1905-1916: 738.

Corymbites boeberi immaculatus MIWA, 1928, Ins. mats., 2 (3): 138, Pl. V, fig. 11 (Tonnaicha in Saghalien).

Corymbites (*Anostirus*) *boeberi*: GURJEVA, 1968, Reichenbachia, 9 (34) Dresden: 292 (Mongolia).

Specimen examine: 1 ♀, Ganhe in Neimeng Prov., 11. VI. 1951; 1 ♀, Daxinganling in Neimeng Prov., VII. 1956.

Distr.: E.Russia, Saghalien, Mongolia & N.China.

43. *Pseudanostirus altaicus altaicus* (ESCHSCHOLTZ, 1829) (Fig. 5)

Ludius altaicus ESCHSCHOLTZ, 1829, In THON. Entom. Arch., 2(1): 34 (Altai).

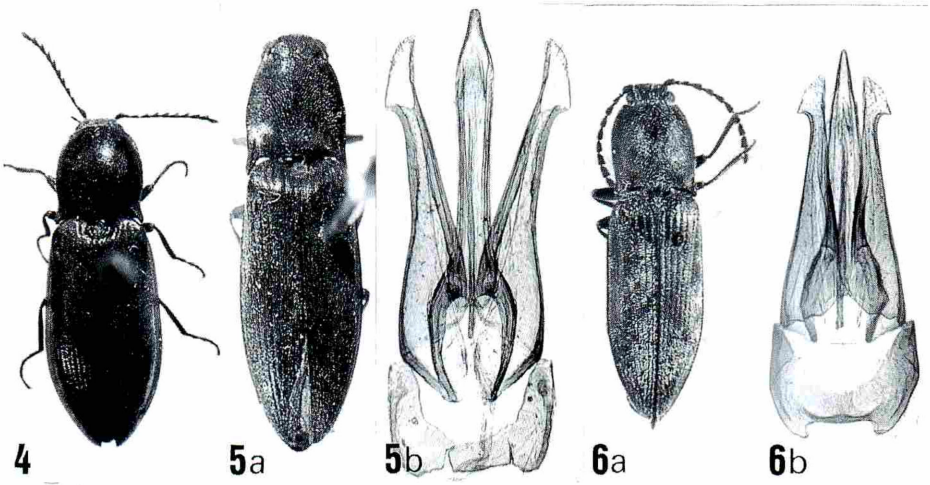
Selatosomus depressus CANDÈZE, 1879, Deut. ent. Zeit., 23: 283, nec GERMAR,1822. nom. praeocc. (Tarbagatai), syn. by TSCHEREPANOV, 1957.

Selatosomus tarbagataicus JACOBSON, 1913, Beetles of Russia and W. Europe, St. Petersburg: 739, nom. nov. for *depressus* CANDÈZE, 1879, syn. by TSCHEREPANOV,1957.

Selatosomus altaicus: TSCHEREPANOV, 1957, Click-beetles of W. Siberia, Novosibirsk: 293 (Altai).

Pseudanostirus altaicus altaicus: GURJEVA, 1989, Fauna USSR, Nauka, 12 (3), Leningrad: (162), 174-175. Fig. 326 (Altai).

Specimen examined: 1 ♂, Fuyun in Xinjiang Prov., VIII. 1989.
Distr. : E.Russia, Kazakhstan, Mongolia & W. China (Altai).



Figs. 4-6. 4. *Anostirus* (*Ipostirus*) *boeberi* (GERMAR, 1824), ♀, Ganhe, Neimeng, 11. VI. 1951, 9.8 mm; 5a. *Pseudanostirus altaicus altaicus* (ESCHSCHOLTZ, 1829), ♂, Fuyun, Xinjiang, VIII. 1989, 11.7 mm; 5b. ditto, male genitalia; 6 a. *Prosternon sericeum* (GEBLER, 1824), ♂, Buerjin, Xinjiang, VII. 1989, 8.8 mm; 6b. ditto, male genitalia.

44. *Prosternon sericeum* (GEBLER, 1824) (Fig. 6)

Elater sericeus GEBLER, 1823-1824, in FISCHER von WALDHEIM, Entomogr. imper. russ., Mosquae. 2: 207 (Balnaula).
Ludius uncinatus ESCHSCHOLTZ, 1829, THON. ent. Arch., Jena, 2: 34 (Kamtshatska).
Prosternon sericeum: GURJEVA, 1972, Nasekonij Mongolij, 1: 455-474 (Mongolia).

Specimen examined: 1 ♂, Buerjin in Xinjiang Prov., VII. 1989.
Distr.: E . Russia, Saghalien, Mongolia, N. China & Alaska.

45. *Actenicerus defloratus* (SCHWARZ, 1902) (Fig. 7)

Ludius maculipennis var. *defloratus* SCHWARZ, 1902, Stett. ent. Ztg. 1902: 291 (China, Kwangtung).

Specimen examined: 1 ♀, Hongya in Sichuan Prov., 20. IV. 1981, PU-JUN WANG leg.; 1 ♂, Muchuan in Sichuan Prov., 22. IV. 1981, ZYONG YI UANG leg. (Both specimens lack the genital organ, but either maybe males judging by the antennal structure).

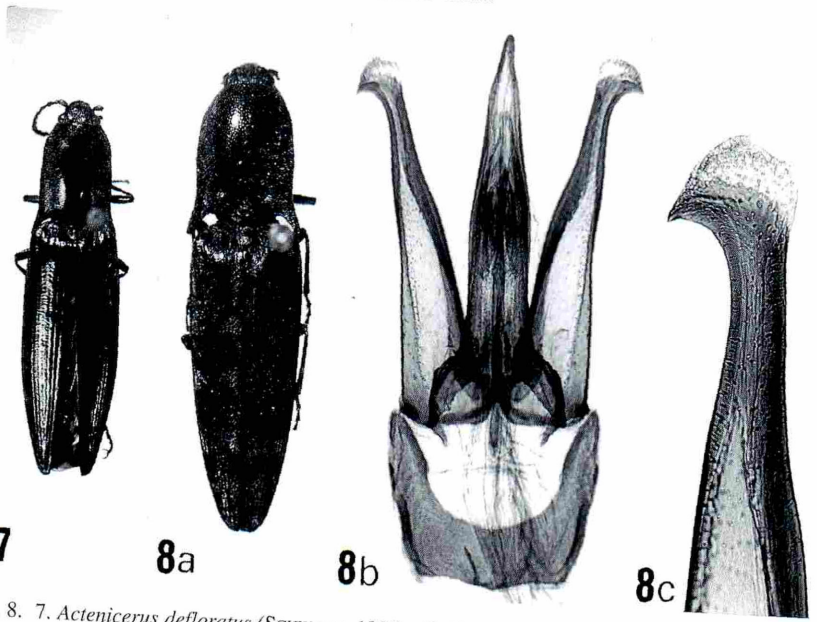
Distr.: S. China & Indochina.

46. *Actenicerus fruhstorferi* (SCHWARZ, 1902) (Fig. 8)

Ludius maculipennis var.*Fruhstorferi* SCHWARZ, 1902, Stett. ent . Ztg. 1902: 291 (Tonkin).

Specimen examined: 1 ♀, Guidun in Fujian Prov., 3. VII. 1982, SI-CHENG QI leg.; 1 ♂, Mt. Lu in Jiangxi Prov., VII. 1982, YA-PING CHAO leg.

Female specimen lack the genital organ, but maybe female judging by the antennal structure.
Distr.: China & Indochina. New record to the fauna of China.



Figs. 7 & 8. 7. *Actenicerus defloratus* (SCHWARZ, 1902), ♂, Hongya, Sichuan, 20. IV. 1981, P-J .WANG leg ., 20.0 mm; 8a . *A. fruhstorferi* (SCHWARZ, 1902), ♂, Mt. Lu, Jiangxi, VII. 1982, Y-P. CHAO leg.; 8b. ditto, male genitalia; 8c. ditto, apex of paramere.

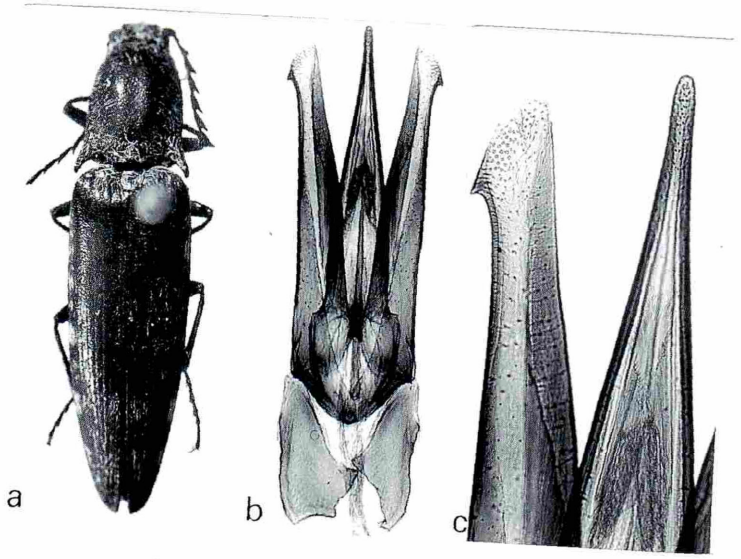


Fig.9. a. *Actenicerus maculipennis* (SCHWARZ, 1902), ♂, Mt. Miaoer, Guangxi, 26. VI. 1979, 18.7 mm; b. ♂, Huang-gang-shan, Mt. Wuyi, Jiangxi, 14. VI. 1991, male genitalia; c. ditto, apical part of male genitalia.

47. *Actenicerus maculipennis* (SCHWARZ, 1902) (Fig. 9)

Ludius maculipennis SCHWARZ, 1902, Stett. ent. Ztg., 1902: 289-291 (China, Kwangtung).

Specimen examined: 1 ♀, Liantung in Jiangxi Prov., 1955; 1 ♂, Mt.Miaoer in Guangxi Prov., 26. VI. 1979; 1 ♂, Hongya in Sichuan Prov., 26 . V. 1981, PU-JUN WANG leg.; 1 ♂, Huanggangshan, Mt.Wuyi in Jiangxi Prov., 14. VI. 1991.

Distr. : China & Indochina.

48. *Actenicerus alternatus* (HEYDEN, 1886) (Fig. 10)

Ctenicerus sjaelandicus var.*alternatus* HEYDEN, 1886, Dt. ent. Ztschr. 30:272 (Primorskij).
Corymbites (Actenicerus) sjaelandicus ab. *asiaticus* JAGENANN, 1943, Ent. Listy. 6: 98 (E.Siberia. Manchuria & Korea), syn. by GURJEVA, 1989 .
Corymbites (Actenicerus) ruptivittis DENISOVA, 1948, Entmol. obozr., 30 (1): 40 (Primorskij), syn. by GURJEVA, 1989.
Actenicerus (Actenicerus) alternatus: GURJEVA, 1989, Fauna USSR, Nauka, 12 (3), Leningrad: (76), 78-79, Figs. 141 & 153 (Priamur, Primorskij, N. Korea & N-E.China).

Specimen examined: 1 ♂, Hunan Prov., VI. 1957 ; 1 ♂, Jiangnan, Panshi in Jilin Prov., 5. VI. 1985; 1 ♂, Zhangjiaba in Guizhou Prov., 26. VI. 1986.

Distr.: E. Russia, N. Korea & N-E. China.

49. *Actenicerus infirmus* (REITTER, 1892) (Fig. 11)

Corymbites infirmis REITTER, 1892, Wien. ent. Ztg., 11: 152 (Transbalkalien).
Actenicerus (Acnitecerus) infirmus: GURJEVA, 1989, Fauna USSR, 12 (3): (76) & 81 Figs. 139, 142, 144, 146 & 150 (E Russia & Korea)

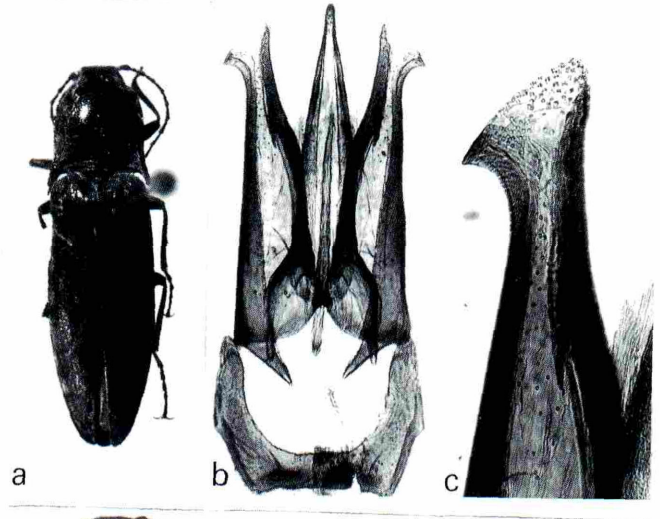


Fig.10. a. *Actenicerus alternatus* (HEYDEN, 1886), ♂, Jiangnan, Panshi, Jilin, 5. VI. 1985, 14 .8 mm; b. ditto, male genitalia; c. ditto, apex of paramere.

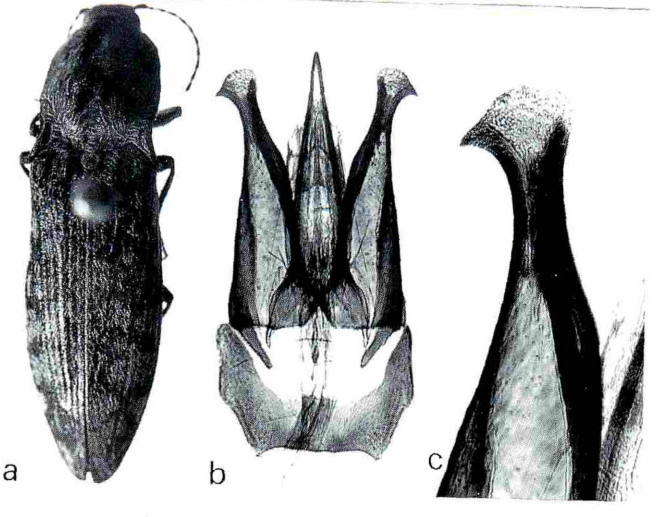


Fig. 11. a. *Actenicerus infirmus* (REITTER, 1892), ♀, Mt. Wudang, Hubei, 1. VI. 1984, 19.2 mm; b. ♂, Jiangnan, Panshi, Jilin, 5. VI. 1985, male genitalia; c. ditto, apex of paramere.

Actenicerus infirmus: KISHII, 1996, Bull. Heian High Sc., 39: 26, fig. 11-u (China: Jilin).

1 ♀, Mt. Wudang in Hubei Prov., 1. VI. 1984; 1 ♀, Jiangnan, Panshi in Jilin Prov., 4. VI. 1985; 1 ♂, ditto, 5. VI. 1985.

Distr.: E. Russia, N. Korea & China.

GURJEVA (1989) divided the genus *Actenicerus* in two subgenera based on the outline of the 3rd and 4th antennal joints as *Actenicerus* s.str. and *Acnitecerus* (Type-species: *Corymbites infirmus* REITTER, 1892). But I consider that the difference is not very important for the judging from general structures of *Actenicerus* elaterids.

Reference (exc. lit. cited previously in this series)

KISHII, T., 1996. Notes on Elateridae from Japan and its adjacent Area (14). *Bull. Heian High School*, 39: 1-40, 62 figs.

(Received May 29, 1996: Accepted Oct. 19, 1996)

Ent. Rev. Japan, 51 (2): 103-106, Dec. 15, 1996

A Study on the Elaterid-beetles of SHIBATA Collection from Taiwan. IV.
(Coleoptera: Elateridae) On the Subfamily Pityobiinae

By TAKASHI KISHII

EG 4-923, Higashiawaji1-5, Higashiyodogawa-ku, Osaka, 533 Japan

Abstract This is the fourth part of the series dealing with the elaterid-beetles from Taiwan collected by Mr.T. SHIBATA and his collaborater. Three species of the Pityobiinae are reported, of which one is newly described as *Pectocera kobayashii*.

Subfamily **Pityobiinae**

Tribe Pectocerini

Pectocera yaeyamana W. SUZUKI, 1976 (Fig. 1)

Pectocera (*Pectocera*) *yaeyamana* W. SUZUKI, 1976, Kontyû, 44 (3): 263-266, Figs. 1-4 (Is. Iriomote-jima & Is. Ishigaki-jima).

Specimen examined: Funchifo: 1 ♂, 3. V. 1970, Y. KIYOYAMA leg.; 2 ♂♂, 4 ♀♀, 4. V. 1970, ditto.

Pectocera babai KISHII, 1990 (Fig. 2)

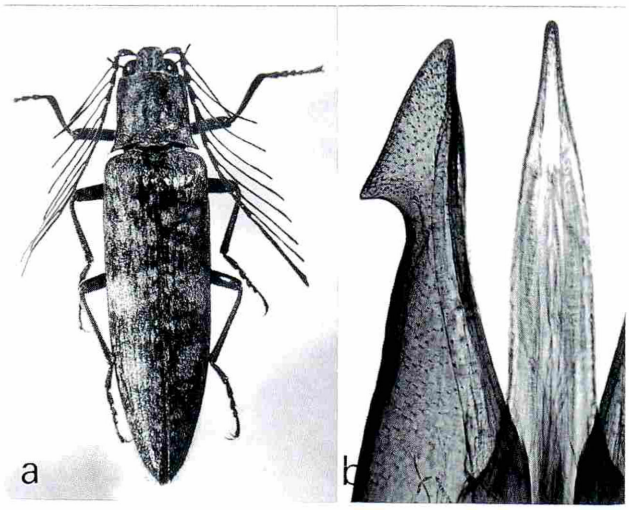
Pectocera (*Pectocera*) *babai* KISHII, 1990, Trans. Essa ent. Soc. Niigata, (70): (19) & 31-38, Figs. 9, 27 & 54 (Sunkang in Nantou Hsien in Taiwan).

Specimen examined: Liukuei:1 ♀, 29. IV. 1970, Y. KIYOYAMA leg.; Musha:1 ♂, 7. IV. 1970, A. RIN leg.; 1 ♀, 4. V. 1970, ditto; Nanshanchi: 1 ♂, 6 . IV. 1971, H. NOMURA leg.; 1 ♂, 20. IV. 1971, C. TOU leg.; Mt. Yangming, 1 ♂, 17. IV. 1970, T. KOBAYASHI leg.

Pectocera kobayashii KISHII sp. nov. (Figs. 3 & 4)

Male, 22.5-25.1×5.4-6.2 mm; female, 27.5-31.3×37.3-8.0 mm. Slender, elongate, well depressed above as well as below, parallel-sided from pronotum to behind elytral humeri, slightly dilated behind the middle of elytra and wholly subopaque. Entirely fresh brown except for eyes and apices of mandibles dark reddish brown, and for abdominal sternites a little darker medianly. Pubescence tender, long, substraightened, entirely recumbent, distinctly dense, whitish silver, and not maculate on pronotum or elytra.

Head narrow, subquadrate, with a clear, rather close, deep and medio-longitudinal groove through total length of vertex; relative breadth between eyes and each eye in dorsal view as 93 :

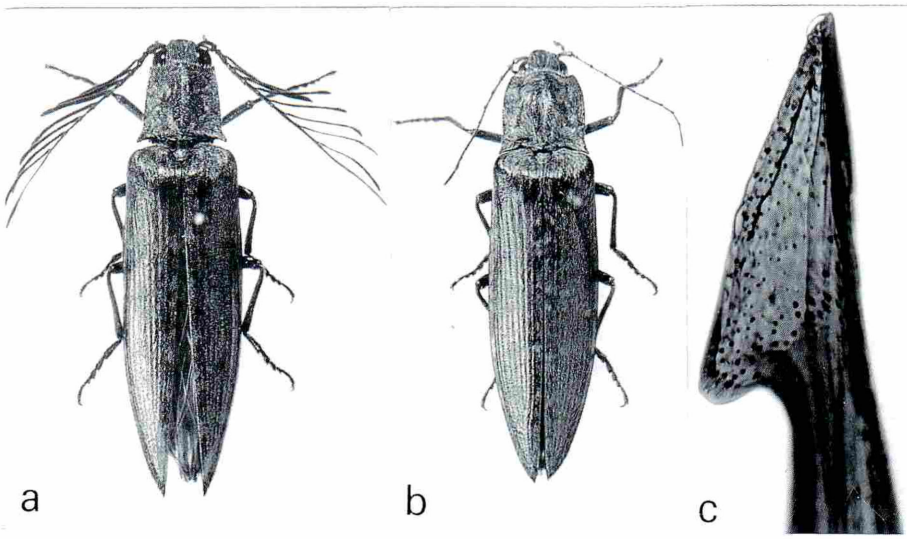


←

Fig. 1. *Pectocera yaeyamana* W. SUZUKI, 1976; a. ♂, Funchifo, 4. V. 1970, Y. KIYOYAMA leg., 27.9 mm; b. apical part of male genitalia, ditto.

↓

Fig. 2. *Pectocera babai* KISHII, 1990; a. ♂, Musha, 7. IV. 1970, A. RIN leg., 28.0 mm; b, ♀, Liukuei, 29. IV. 1970, Y. KIYOYAMA leg., 27.5 mm; c. apex of paramere in male genitalia of holotype, Sunkang, 28 . V. 1989, K. BABA leg.



64 (ca. 1.5 times); eyes conspicuously large, spherical and distinctly prominent outwards; latero-anterior corners upon antennal sulci thickly and roundly elevated, without any carination at front of frons and its anterior margin entirely joined to rear edge of labrum; antennal sulci clearly circular and definite; frons transversely and closely flattened; punctures round, generally large, but entirely uneven in size, distinctly dense, and their interstices perfectly smooth and exceedingly narrow. Mouth parts large and projecting ahead. Labrum (Fig. 4-g) transversely quadrate and feebly concave at the middle; anterior edge conspicuously crenated and acutely extending at the middle; punctures rather sparse, but uneven in density and size, and their interstices finely and shagreen-likely sculptured and visible in high magnification.

Antennae (Figs. 4-a & 4-b, male; 4-c, female) clearly flabellate from 3rd joint (male) or entirely filiform (female); relative length/width (ex. flabellum) from basal joint to 5th as 76/30, 16/28, 41/21, 46/19 and 52/19 respectively (male) and 80/30, 30/25, 70/28, 80/28 and 78/28 (female); basal joint robust, plainly expanded near apico-anterior side, 2nd smallest, cup-shaped

and distinctly broader than long (male) or elongate triangular and obviously longer than broad (female), each flabellum from 3rd to 10th feebly dilated near apical end and curved (male), and 11th generally broader than other joints (male).

Pronotum (Fig. 4-e, male & Fig. 4-f, female) broad, trapezoid, simply and medio-longitudinally elevated, with a pair of weak, shallow and transverse foveae before the middle; frontal margin feebly expanded forwards at the middle (male) or rather transverse (female), and a little excavated near latero-apical corners, which are bluntly pointed; lateral sides straight (male) or slightly expanded (female), minutely crenated from anterior angles to base of posterior ones; hind angles distinctly divergent outwards, having no carination, acutely pointed at apices, with each posterior margin finely and definedly crenate. Discal punctures generally smaller than those of head, plainly irregular in density and size, and their interstices wholly glabrous and conspicuously closer than puncture diameters in average.

Scutellum (Fig. 4-h) semicircular, widest behind anterior corners, then roundly convergent towards hind apex, which is entirely rounded, strongly and transversely depressed behind the middle, weakly excavated at the middle of anterior edge, with punctures distinctly dense and fine.

Elytra flattened, feebly and narrowly depressed along lateral sides; striae almost absent, but some vestige visible near latero-basal parts only, with punctures obviously minuter and sparser than those of pronotum; apices acutely pointed.

Prosternum broad and subtrapezoidal, narrowest behind the middle, a little widened before procoxae, strongly and divergently expanded at anterior corners, medio-longitudinally elevated beneath from posterior process to behind anterior lobe, with a pair of deep broad and longitudinal excavations near the middle; punctures conspicuously irregular in density and size, and their interstices clearly and shagreen-likely sculptured all over.

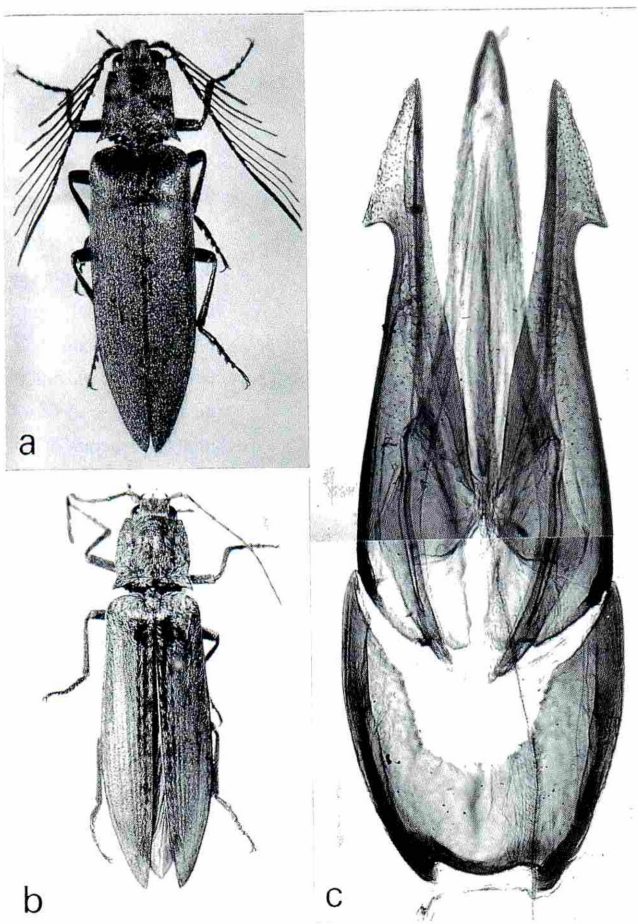


Fig. 3. *Pectocera kobayashii* KISHII sp. nov.; a. ♂, Kenting Park, 12. III. 1970, T. KOBAYASHI leg., 23.8 mm, paratype; b. ♀, Kenting Park, 2. IV. 1970, S. CHO leg., 27.4 mm, para-type; c. male genitalia.

Prosternal process elongate and narrow, plainly expanded laterally near the middle, in profile (Fig. 4-d) narrow and straightly extending, and clearly bent inwards behind procoxae, with posterior end rounded. Prosterno-pleural sutures entirely closed, roundly and divergingly extending forwards. Propleural punctures generally smaller and denser than those of prosternum. Metasternal punctures distinctly minute and shallowly punctured, and rather obsolescent partly. The 6th sternite with a narrow, transverse, membranous and glabrous area along hind edge. The 7th sternite (fig. 4-i) obviously narrowed near apex, which is a little truncate and feebly excavated at the middle. Legs slender and moderate. Male genitalia as figured (fig. 3-c); median lobe acutely pointed at apex, and progressively and straightly broadened towards base; each lateral lobe narrow, with apico-lateral and triangular expansion distinctly narrow, and both apical and lateral apices acutely pointed.

Holotype: ♂, Kenting Park in Pingtung Hsien, 15. III. 1970, T. KOBAYASHI leg. Paratypes: 1 ♂, Kenting Park in Pingtung Hsien, 12. III. 1970, T. KOBAYASHI leg.; 2 ♂♂, ditto, 14. III. 1970, ditto; 1 ♀, ditto, 2. IV. 1970, S. CHO leg.; 1 ♀, ditto, 9. IV. 1970, T. KOBAYASHI leg.

This new species is easily distinguishable from the other Asian species of the genus by the slender body, inmaculate elytra. and the different shape of the male genitalia.

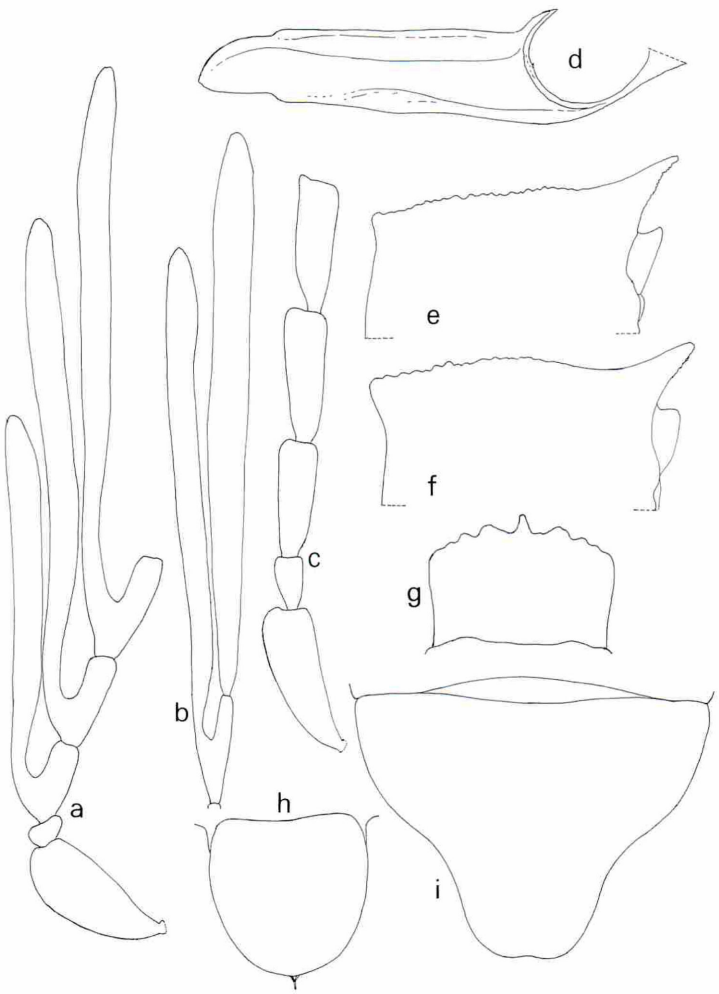


Fig. 4. *Pectocera kobayashii* KISHII sp. nov.; a. 5 basal joints of antenna, male; b. 2 apical joints of antenna of male; c. 5 basal joints of antenna of female; d. prosternal process in profile; e. right half of pronotum in dorsal view in male; f. ditto, female; g. labrum; h. scutellum; i. 7th sternite.

(Received May 29, 1996: Accepted Oct. 19, 1996)

Ent. Rev. Japan, 51 (2): 107-109, Dec. 15, 1996

A New Species of the Genus *Ephies* and Male Features of *Strangalia puguismontana* HAYASHI et VILLIERS from the Philippines (Coleoptera: Cerambycidae)

By MASAO HAYASHI

Residence Kotobuki 202, Karita 2-16-5, Sumiyoshi-Ku, Osaka, 558 Japan

and

HAJIME NARA

Ta 510, Yuasa-cho, Arida-gun, Wakayama, 643 Japan

Abstract A new species, *Ephies hefferni* HAYASHI et NARA, sp. nov., and male features of *Strangalia puguismontana* HAYASHI et VILLIERS, 1985 are described.

Key words Cerambycidae; *Ephies*; *Strangalia*; New Species; Male Characters; Philippines.

Among the numerous cerambycid specimens which had been submitted to us for study through the courtesy of Mr. DAN HEFFERN, we found a new species of *Ephies* and previously unknown male of *Strangalia puguismontana* HAYASHI et VILLIERS (1985). We would like to describe them in the following lines. We express our gratitude to Mr. DAN HEFFERN, Houston, Texas , U. S. A., who gave us a chance to study many interesting materials.

1. *Ephies hefferni* HAYASHI et NARA sp. nov. (Fig. 1)

Male: Body entirely black, except for brown eyes; prothorax, elytra, under sides of body and legs shining . Pubescence fine and fulvous, thin on head, under surface of body and on legs , and partially, dense on gula, prosternum, front coxae, mesosternum, basal half of metasternum and basal sides of 1st and 2nd abdominal segments .

Head distinctly narrower than base of prothorax (ratio of width across eyes to width of pronotal base as 1.8 : 2.3), length from tip of mandible to anterior margin of eye shorter than the length from anterior margin of eye to posterior margin of angulated temple (ratio as 1 : 1.3); frons finely and densely punctured, transversely flattened in front and obliquely raised behind; clypeus polished; medio-longitudinal furrow distinct, extending backward from posterior raised portion of frons to occiput through triangularly concave vertex. Mesal margin of antennal insertion distinctly raised. Antennae with tips reaching apical fifth of elytra, strongly dentate from 3rd to 10th, triangularly produced ecto-apically; 1st to 5th joints shining and 6th to 11th mat.

Prothorax trapezoidal, distinctly broadened posteriorly, relative width of apex to base as 1.2 : 2.3, definitely constricted behind apex, then arcuately inflated before middle and const-

1

Fig. 1, *Ephies hefferni* HAYASHI et NARA; habitus.

ricted again behind the inflation; base bisinuate, and hind angles sharply triangularly produced; disc minutely and closely punctured, with a fine medio-longitudinal furrow. Scutellum triangular, finely and closely punctured, with a medio-longitudinal impression.

Elytra relatively broad, about 3.7 times as long as broad, fairly broader at base than pronotal base, widest at humeri; sides weakly and gradually narrowed posteriorly; apical margin of each elytron distinctly emarginate, dehiscent at suture and spinulate at both corners, viz. outer spine long, sharply projected and sutural one short but definite; disc convex , finely and sparsely punctured.

Under side of body finely punctured throughout; last visible abdominal sternite pentagonally concave at middle of apex, with a pair of oblique lateral carinae forming lateral walls. Hind femora thicker than other femora and hind tarsi contrastingly slenderer than other tarsi.

Length: 1 4 mm, width: 4 mm .

Holotype: ♂; paratype: ♂, Mt. Mandalugan, Negros Is., Philippines, April 1993, C. B. TIANGSON leg. (In the coll. M. HAYASHI and D. HEFFERN)

This new species is readily separable from the other known species by the entirely black body and lacking for silky dense pubescence.

2. *Strangalia puguismontana* HAYASHI et VILLIERS (Fig. 2)

Stranqalia puguismontana HAYASHI et VILLIERS, 1985, Bull. Osaka Jonan Women's Jr. Coll., 19-20: 22 . pl. 2. fig. 5, (Mt. Puguis, Bontok Prov, Luzon, Philippines, based on female)

Male: Body mat, but front and underside of head rather shining, elytra, basal 5 segments of antennae and legs dully shining. Colour black, clypeus, apical halves of labrum and mandibles, palpal segments, apex of claw joints and claws more or less diluted with brown, antennae black to faintly brownish black, apex of 2nd brown, 6th to 9th usually diluted with yellowish brown at least at bases, 6th and 7th sometimes mottled, and 8th and 9th sometimes predominantly yellowish brown, 10th and 11th dark brown ; elytra each decorated with a narrow yellow stripe which is tapered and evanescent posteriorly. Pubescence golden, partly thin on dorsum and dense on underside of body.

Body long and slender. Head longer than wide, moderately prolonged ahead before eyes and suddenly narrowed behind eyes, very densely and rather confusedly punctured, and mingled with some large punctures on occiput; frons divided into flattened front and sloping hind portions, front portion coarsely and irregularly punctured, hind portion with smooth and triangular plate of which the summit is continuing with medio-longitudinal furrow on vertex, the portion between the triangular plate and antennal insertions finely and very densely punctured and pubescent; clypeus polished. Eyes semicircularly bulging, finely faceted. Antennae slender, filiform. with apices barely surpassing elytral apex.

Prothorax 1.2 times as long as wide, widest at base, with the ratio of apical width to basal width as 6 : 10, moderately convex above, but distinctly constricted behind apex; basal margin

Fig. 2, *Strangalia puguismontana* HAYASHI et VILLIERS; habitus.

distinctly constricted behind apex; basal margin distinctly produced at middle; disc finely and closely punctured, with punctures almost contiguous to one another. Scutellum triangular, finely and densely punctured, pubescence so dense as concealing dermal sculpture.

Elytra about 3.3 times as long as wide, broader than head and also prothorax; sides widest at humeri, then arcuately diminishing in width toward apex; apical margin narrow, obliquely emarginate and dehiscent at suture, with apex pointed, apart from suture; disc coarsely punctured, punctures larger and sparser behind base, then finer apically and rather confused along suture.

Sterna and their side pieces minutely and closely punctured. Abdomen very finely punctured; last visible sternite triangularly flattened on disc, with a circular faint depression at middle of apical margin.

Legs slender and long; femora weakly and gradually thickened posteriorly; hind tibiae faintly curved and broadened toward apices; fore and middle tarsal joints broad and flattened, deeply incised at apices of 3rd joints respectively, hind tarsi slender, cylindrical, with apical incision weak; procoxae produced.

Length: 14 -15 mm; width: 3 mm.

Materials examined: 5 ♂♂, 5 ♀♀, Mt. Mandalugan, Negros Is., Philippines, April 1993, C. B. TIANGSON leg. (In the coll. of M. HAYASHI and D. HEFFERN)

Variation: Male 8th and 9th antennal segments reddish yellow, and infuscate at apices , 10th occasionally also reddish yellow, with darkened apex.

Female: Antennal segments 6-9 usually reddish yellow with infuscate apices. Occasionally yellow longitudinal stripes on elytra broadened. Body length: 10-17 mm.

Selected bibliography

HAYASHI et VILLIERS, 1985. Revision of the Asian Lepturinae (Coleoptera: Cerambycidae) with special reference to the type specimen's inspection. Part I. *Bull. Osaka Jonan Women's Jr. Coll.*., (19 - 20): 1 -75. pls. 1-15.

——— 1989. Ditto, Part III. *Ibid.*, (24): 1 -43. pls. 15. 1 - 4.

(Received Sep. 6, 1996: Accepted oct. 19, 1996)

Ent. Rev. Japan, 51 (2): 110, Dec. 15, 1996

New Record of Staphylinidae from Taiwan, 1.

By YASUHIKO HAYASHI
Suimeidai 3-1-73, Kawanishi City, Hyogo, 666-01 Japan

Rugilus simlaensis (CAMERON)

Stilicus simlaensis CAMERON, 1932, Fn. Brit. Ind., Coleop. Staph., II: 106.

Specimens examined: 1 ♂, Fungchiifo, Formosa, 29. IV. 1971, Y. HAYASHI leg.; 1 ♀, Lishan, Formosa, 3. VII. 1972, Y. MAEDA leg., at light.

Distribution: India; Taiwan (new record)

Notes The present species collected on rather high mountainous regions in India and Taiwan.

Philonthus crassicornis FAUVEL

Philonthus crassicornis FAUVEL, 1895, Rev. d'Ent., XIV: 264.

Specimens examined: 1 ♂,Is. Lanyu, Formosa, 3. VI. 1972, Y. KIYOYAMA leg.; 1 ♀, Mt. Yangming, Formosa, 15. IX. 1970, Y. KIYOYAMA leg.

Distribution: Ceylon; India; Singapore; Java; Sumatra; Mauritius; Réunion; Taiwan (new record)

Notes The present species is widely distributed from S.E Asia to East Africa.

Ent. Rev. Japan, 51 (2): 111-115, Dec. 15, 1996

Two New Species of the Genus *Parastasia* WESTWOOD (Coleoptera, Scarabaeidae, Rutelinae) from Borneo and Sulawesi

By KAORU WADA

3-13-19, Kokubunjidai, Ebina City, Kanagawa, 246 Japan

Abstract Two new species of the genus *Parastasia* from Borneo and Sulawesi are described under the names of *P. kuijteni* and *P. kolakana*.

Key words: *Parastasia*; Coleoptera; Scarabaeidae; Rutelinae; new species; Borneo; Sulawesi.

Through the courtesy of Dr. P. KUIJTEN, I had an opportunity of examining remarkable specimens of the genus *Parastasia*, preserved in the National Museum of Natural History, Leiden. Of two species involved in them, one species is collected in Borneo and the other is in Sulawesi. He assumed that the former is new to science and the latter is a variety of *P. kinibalensis* , or one of its related new species. He kindly permitted me to study those interesting specimens. After my detailed study, I concluded that both are new to science, and describe them under the names of *Parastasia kuijteni* and *P. kolakana* in this paper.

Before going further, I wish to express my sincere gratitude to Dr. P. KUIJTEN, Rijksuniversiteit, Leiden, for his constant guidance and encouragement, and Dr. J. KRIKKEN, the National Museum of Natural History, Leiden, for the permission of the loaning specimen and materials under his care. My thanks are due to Dr. TAKEHIKO NAKANE, Chiba City, for his kindly reading the manuscript, and also due to Dr. MANFRED UHLIG, the Museum für Naturkunde der Humboldt Universität zu Berlin, Dr. ROGER-PAUL DECHAMBRE, the Muséum National d'Histoire Naturelle, Paris, Dr. MALCOM D. KERLY, the Natural History Museum, London, Dr. OTTÓ MERKL, Zoological Deptartment, the Hungarian Natural History Museum, Dr. MARTIN BAEHR, the Zoologische Staatssammlung, München, and Dr. C. O'TOOL, Hope Entomological Collections of University Museum, Oxford, for offering me the opportunities of examining collections of the genus *Parastasia*. My deep indebtedness is due to Messrs. MASAAKI ISIDA and TAKESHI ITO, for providing materials. The holotypes of new species are preserved in the collection of the National Museum of Natural History, Leiden.

Parastasia kuijteni K. WADA, sp. nov. (Figs. 1,4-6)

Body length: 25.4-26.5mm, width: 15.1-16.4mm.

Head, ventral surface except for 6th abdominal sternite and protibiae black, pronotum, scutellum, elytra, 5th abdominal sternite, propygidium, pygidium, femora, meso- and metatibae, tarsi and antennae dark reddish brown, pronotum with two pairs of black subtriangular patches, one at the middle and the other at basal 1/3, though they are often connected with each other in lateral portions; elytra sometimes with vague patches at humeral swellings; dorsal surface vitreously shining, ventral surface rather weakly, alutaceously shining; dorsal surface glabrous, ventral surface glabrous except for metathorax, which is clothed with rather long, reddish brown hairs.

Labrum transversely trapezoidal, with anterior margin weakly produced and finely sinuous.

Left galea with 3 free teeth in apical half, and also with a basal tooth, which forms a compact common stalk with 3 small free apexes in a single row; right galea with 4 free teeth in apical half and a basal tooth, which is almost of the same shape as the left.

Clypeus subtrapezoidal, apical margin reflexed with a pair of sharp, upright teeth, lateral margins curved inwards in apical halves, subparallel in basal halves before eye-canthus, with a transverse ridge at basal 1/4, which is interrupted in median third; clypeus and anterior portion of frons feebly micro-shagreened and obliquely rugulose; frons and vertex shallowly and irregularly punctate, the punctures becoming smaller and sparser posteriad, though those along eyes being dense, elongate and wrinkled.

Pronotum with a pair of impressions at the middle near medio-lateral angles, and also with a pair of impressions at basal 1/3 of lateral 1/4, scattered with small punctures, which are intermixed with smaller ones, the larger punctures rounded, becoming much larger towards anterior and lateral portions, those in lateral margins becoming denser, more transverse or crescent-shaped, those along lateral rims being coalescent and microscopically wrinkled; lateral margins finely rimmed, the rims becoming finer in middle and extending to the hind angles, rather noticeably narrowed in apical 2/5, feebly arcuate behind apex, sublinearly, slightly narrowed in basal 3/5; front angles obtuse, hind angles rounded.

Elytra feebly microsculptured, the sculpture visible in 40×under a certain light, with 8 rows of small punctures; lateral margins feebly arcuate laterad, slightly sinuous at basal 1/3, then roundly narrowed posteriad, rounded at apices, rimmed, the rims in anterior 1/4 thickened, those in posterior 3/4 becoming finer; sutural portions of apexes obtusely ridged and haired; intervals irregularly scattered with round punctures, which are various in size, those in lateral portions becoming extremely finer and without setae.

Propygidium slightly dull, scarcely punctate, the punctures mixed with small and large ones in anterior portion, those near posterior margin becoming denser, larger and more transverse, and those in lateral portions somewhat oblique and coalescent, each with a sparse, decumbent yellowish brown seta (0.17-0.18 mm in length), with a pair of spiracles on shallow depressions of external walls near lateral margins.

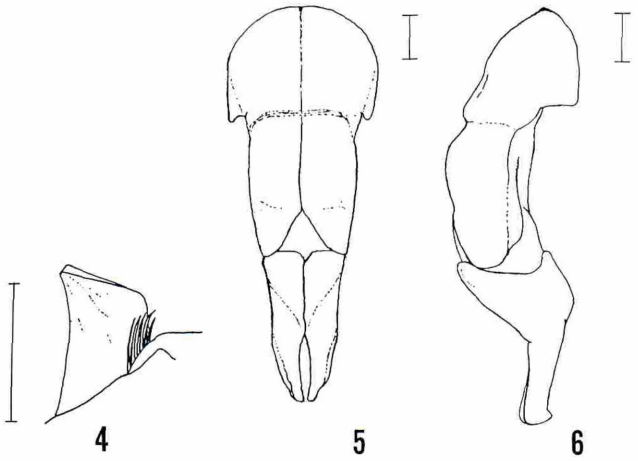
Pygidium dull, densely, rather reticulately rugulose, without setae, with a pair of shallow, ill-defined depressions near antero-lateral angles; outer margins rimmed, nearly straight laterally, truncate at apex.

Metasternum finely punctate in middle, the punctures becoming denser, more transverse, and reticulately rugulose in lateral portions, with rather long, suberecte setae (0.5-1.4 mm in length); mesometasternal process slightly extending backwards beyond middle coxae, with apex acutely angulate, though slightly rounded; disc with a thin arrowhead-shaped groove.

Protibiae slightly curved inward, rather obliquely toothed on lateral magins in apical forth, with inner basal angles almost rectangular.

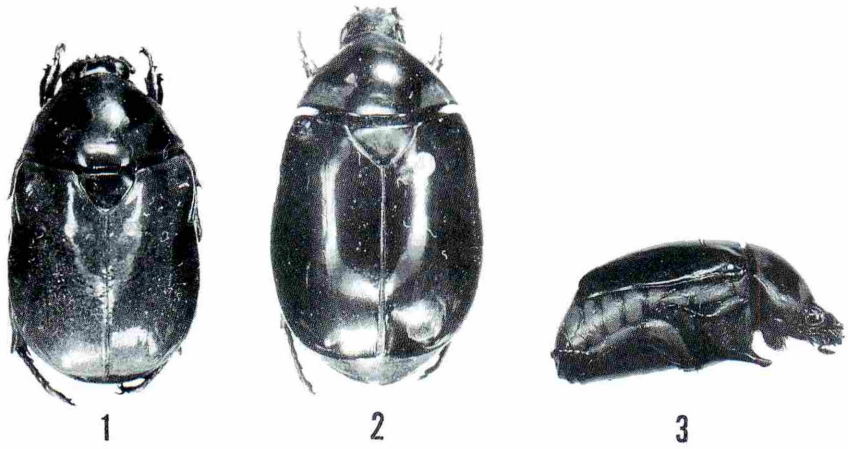
Fore claws simple and acuminate; middle and hind claws with outer one deeply incised into two branches, the lower branch transversely rugulose, considerably broader than the upper, and also with inner one slender, simply acuminate, gently curved.

Holotype: ♂, Sabah, Borneo, X-XI. 1987, R. de JONG leg. Paratypes: ♂, Keningau, Kinabaru, Sabah, Borneo, 8. XII. 1988; ♂, Near Keningau, Kinabaru, Sabah, Borneo, 12. XII. 1988, M. ITO leg.; ♂, Keningau, Kinabaru, Sabah, Borneo, 20-25. III. 1988, M. ITO leg.; ♂, Keningau, Kinabaru, Sabah, Borneo, V. 1993.



←
Figs. 4-6. *Parastasia kuijteni* sp. nov., holotype, ♂; 4. left mandible (dorsal view); 5 & 6. male genitalia, 5. dorsal view, 6. lateral view (scale: 1mm).

↓
Figs.1-3. Habitus of *Parastasia* spp.; 1. *P. kuijteni* sp. nov., holotype, ♂, dorsal view; 2-3. *P. kolakana sp.* nov., holotype, ♂; 2. dorsal view, 3. lateral view.



Notes This new species can be distinguished from other known species of the genus *Parastasia* by the different coloration of pronotum and the peculiar shape of male genitalia.

Parastasia kolakana K. WADA, sp. nov. (Figs. 2-3,7-10)

Body length: 26.9mm, width :15.2mm.

Head, elytra, pygidium, ventral surface except for lateral portions and apex of mesosternal process, and tarsi black, pronotum, scutellum, propygidium, lateral portions of ventral surface, and apex of mesosternal process reddish brown, pronotum with a large black bat-shaped patch, scutellum with black margins, propygidium with a black band in anterior portion, pygidium with a longitudinal, reddish brown band in the median portion, slightly widened in basal and apical portions, femora and tibiae reddish brown, though partly black; dorsal surface glabrous, ventral surface almost glabrous, though metathorax clothed with rather long, yellowish brown hairs.

Each galea with three larger, thick and free teeth in apical half, and three smaller, slenderer basal teeth, which are coalescent basally in a single row.

Labrum transversely trapezoidal, with anterior margin slightly produced and finely sinuous.

Prementum with anterior margin produced, deeply excised at the middle.

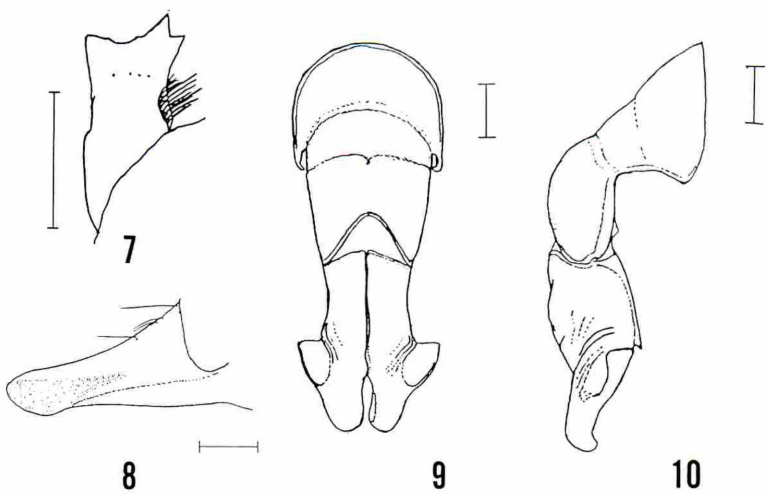
Head finely microsculptured; clypeus subtrapezoidal, with a low transverse ridge at basal 1/4, which is interrupted in median third and its junctions with lateral margins hardly dentate but simply ridged; apical margin almost straight and slightly reflexed with a pair of blunt, wide and upright denticles, lateral margins curved inward in apical halves, almost parallel in basal halves before eye-canthus; clypeus and frons distinctly finely rugose, the rugosities partly confluent in reticulation; vertex distinctly punctate, the punctures becoming smaller and sparser laterad and posteriad, though those along eyes being elongate and partly coalescent.

Pronotum rather noticeably narrowed apicad in apical 2/3, sublinearly, slightly divergent posteriad in basal 1/3; lateral margins obviously rimmed, the rims becoming narrower in middle and extending to the posterior margins; front and hind angles rounded; disk with an impression at the middle near medio-lateral angles on each side, feebly microsculptured, scattered with extermely small punctures in median portion, the punctures in lateral portions becoming larger and denser.

Elytra very weakly microsculptured, visible in 40×under a certain light, scarcely punctured, the punctures extremely small and hardly visible, without setae; lateral margins feebly arcuate laterad, slightly sinuous in basal half, feebly divergent and then roundly narrowed posteriad in apical half, slightly rounded in apices, rimmed, the rims in basasl 1/4 thickened, those in posterior 3/4 becoming narrower, and then disappearing around hind corners; sutural portions of apexes weakly ridged and slightly protruded.

Propygidium slightly dull due to microsculpture, distinctly punctate, the punctures circular, becoming denser in anterior and lateral portions, though partly rugulose in lateral portions, with a pair of shallow depressions and a pair of short transverse grooves near antero-lateral margins; spiracles not protruded.

Pygidium slightly dull due to microsculpture, scarcely punctate in median portion, the punctures small, becoming denser in anterior and lateral portions, with rugulae along anterior



Figs. 7-10. *Parastasia kolakana* sp. nov., holotype, ♂; 7, left mandible in dorsal view; 8. mesosternal protrusion in lateral view; 9-10, male genitalia, 9, dorsal view, 10, lateral view (scale: 1 mm).

margin; outer margin rimmed, nearly straight laterally, subtruncate at apex.

Metasternum with a shallow groove in the median portion and rows of punctures straightly along the groove, scarcely punctate in middle, the punctures small, gradually becoming denser, larger and deeper in lateral portions, with suberect setae (0.5-0.9 mm in length); mesosternal process long, far surpassing middle coxae, feebly bent ventrad, with apex bluntly angled and slightly bent dorsad.

Protibiae with inner basal angles subrectangular, slightly curved inward; lateral teeth situated in apical third of margin.

Fore claws simple, acuminate, sickle-shaped, approximately equal in length; inner claw of middle and hind legs simply acuminate and curved, outer one of middle and hind legs deeply incised into two branches, the lower branches broader than the upper.

Holotype: ♂, Kolaka, Sanggona, Base camp, alt. 200 m, 10-21-X-1989, Sulawesi, KRIKKEN & VAN DER BLOM leg.

Notes This new species closely resembles *P. kinibalensis* OHAUS, 1901, but can be easily distinguished from the latter by the distinct coloration and the peculiar shape of male genitalia.

References

KRIKKEN, P. J., 1992. A revision of the genus *Parastasia* in the Indo-Australian region (Coleoptera, Scarabaeidae, Rutelinae). *Zool. Verhandlungen*, 275: 3- 176, 268 figs., 6 maps.

OHAUS, F.,1901. Ruteliden der alten Welt. *Deut. Ent. Zsch.*, (1): 128-129

———— 1903. Ditto. *Ibid.*, (2): 209-228.

———— 1911. Ditto,8. *Ibid.*, (3): 319-335.

———— 1934. Coleoptera Lamellicornia. Fam. Scarabaeidae, Subfam. Rutelinae, 1. *Genera Insect.* 199A: 1-172, 6 pls.

———— 1938. A collection of Rutelinae from Mt.Kinabalu, British North Borneo. *J. Fed. Malay Stat. Mus.*,17 (1932-1935, publ.1938): 122-127.

(Received Sep. 11, 1996: Accepted Oct. 19, 1996)

Ent. Rev. Japan, 51(2):117-119, Dec. 15, 1996

A New Species of Genus *Sericania* MOTSCHULSKY from Shikoku, Japan. (Scarabaeidae: Melolonthidae)

By YOSHIKAZU MIYAKE
Nagayama 3-3-7-201, Tama-shi, Tokyo, 206 Japan.
and
NOBUO SANO
662, Kotohira-cho, Nakatado-gun, Kagawa Prefecture, 766 Japan.

Abstract A new sericid species, *Sericania kompira* is described from Shikoku, Japan.

Sericania kompira Y. MIYAKE et SANO, sp. nov.

Male: Dorsal surface of body, legs reddish brown, fairly shining, with head black, except brown clypeus, antennae pale yellow, elytra paler; marginal portion and median line of pygidium, ventral surface of body opaque, strongly iridescent, except shining median part of metasternum and inner portions of hind coxae.

Elongate oval, rather flattened. Clypeus subtrapezoidal, twice as wide as long, densely and rugosely with fine punctures, but the punctation sparser and coaser, with a shallow transverse groove, bearing a few erect setae in front; lateral sides strongly convergent anteriorly, the margins almost straight in basal halves; front margin distinctly emarginate; front angles rounded; clypeo-frontal suture elevated, almost evenly arched. Frons unevenly, rugosely punctate,

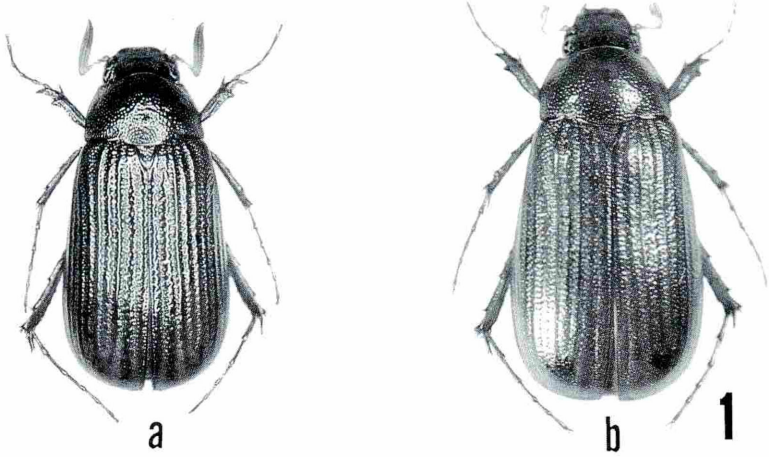


Fig 1. *Sericania kompira* sp. nov., habitus: a, male; b, female (K. SAKAI photo)

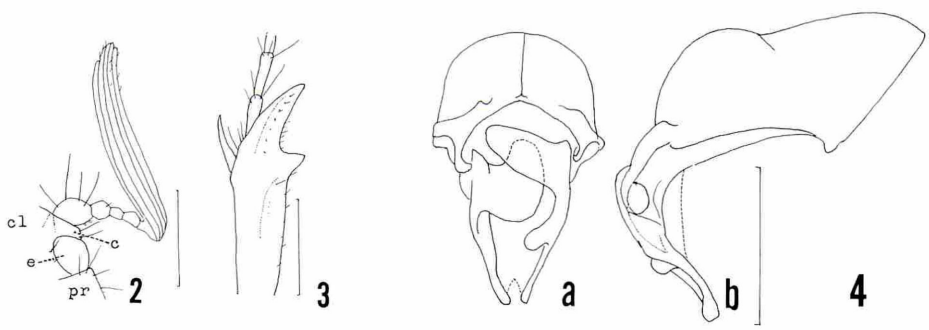
with a longitudial carina in the middle, bearing a few setae near eyes. Eye canthus nearly as long as a half length of eye, bearing one or two setae upon its extremity. Eye one-third as wide as frons between two eyes. Antenna nine-segmented; the club 1.2 times as long as foot-stalk, which consists of five segments; the proximate segment (the fifth) nearly four-fifths to five-sixths as long as succeeding segment. Pronotum 1.7 times as wide as long, strongly convex above, depressed near front and hind angles, unevenly and sparingly, but strongly and coarsely punctate in the middle, densely and finely punctate before and behind the middle, and at sides, with a narrow, smooth area, without longitudinal groove in the middle, and a impression near each lateral angle; lateral sides angulate in the middle, almost straight or sinuate in front, sinuate behind; front angles sharp or nearly rectangular, the apices protrudent anteriorly, hind ones also rectangular, the apices rounded; base arched in the middle, straight at both sides, bearing yellowish setae along lateral margins and both sides of front margin. Scutellum triangular, scarcely longer than wide, rather sparsely and finely punctate. Elytra 1.5 times as long as wide, strongly punctate and rugose; striae fairly grooved, their bottoms each with a very narrow lines and fine punctures; intervals almost evenly elevated, their feet coarsely, partially rugosely punctate. Pygidium more than twice as wide as long, strongly convex in the middle, densely and finely punctate; median smooth line very narrow. Metasternum depressed, longitudinal groove in the middle; rather sparsely punctate, bearing long yellowish hairs. Abdomen sharply carinate at sides; each abdominal sternite densely, finely punctate, sparingly bearing short, strong and brownish setae, and very fine ones. Front tibia sharply bidentate, the apical tooth long and tapering, its apex beyond middle of second tarsal segment. Tarsal claws short, strongly curved downwards, the ventral tooth short, obliquely truncate at apex.

Length: 9.7-10.3 mm. Width: 4.9-5.5mm.

Female: Eyes about one-fourth as wide as frons between eyes. Antennal club consists of three segments, which scarcely shorter than footstalk.

Length: 10.5-12.3 mm. Width: 5.3-6.1 mm.

Type-specimens: holotype: ♂, Mt. Zouzusan, Kotohira Town, Kagawa Prefecture ,13. V. 1994, N. SANO leg.: allotype: ♀, same data as holotype, N. SANO leg.; paratypes; same locality as holotype, 2♀♀, 12. V. 1994; 1♂, 2♀♀, 13. V. 1994; 3♂♂, 16. V. 1994; 1♂, 1♀ 28. V.1994; 1♀, 30. V. 1994; 1♂, 22. 1V. 1995; 2♂♂, 2♀♀, 2. V. 1995; 1♀, 29. 1V. 1996; 2♂♂, 2♀♀, 2. V. 1996; 9♂♂, 8♀♀, 11. V. 1996; 10♂♂, 3♀♀, 15. V. 1996; 4♂♂, 16. V. 1996, N. SANO leg.



Figs. 2-4, *Sericania kompira* sp. nov., ♂: 2, antenna, canthus, etc. (c=canthus; cl=clypeus; e=eye); 3, apical portion of front tibia; 4, genitalia: a, parameres in dorsal view; b, lateral view. (scale: 1 mm)

The new species is very similar to *Sericania hirosei* Y. MIYAKE et NAKAMURA and *S. mimica* LEWIS, but it differs from them in the following points. The different points from S. *hirosei*: the fifth antennal segment is well developed, about four-fifths to five-sixths as long as succeeding segments; right paramere of the male genitalia with a long basal expantion, and distinct tooth-like process. From *S. mimica*, the punctation of clypeus is denser and finer; the apical tooth of front tibia much longer. From both species, each abdominal sternite except anal one scattered with short fine setae all over, instead of a single row of short strong setae, etc.

Acknowledgment We take this opportunity of thanking Mr. KAORU SAKAI for the use of beautiful photographs.

(Received Sep. 30, 1996: Accepted Oct. 19, 1996)

Ent. Rev. Japan, 51 (2): 121-134. Dec. 15, 1996

Species of the *leptopus* Group of the Genus *Trichotichnus* from Western Japan Including Fukui Pref. (Coleoptera, Carabidae, Harpalini)

By NOBORU ITO

1-7-18, Higashiuneno, Kawanishi City, Hyogo Pref., 666-01 Japan

Abstract Five new species of the *leptopus* group of the genus *Trichotichnus* are described from Mt. Kongo in Osaka Pref., Mt. Kibune in Kyoto Pref., Mt. Mikuni in Fukui Pref., Mt. Wakasugi in Okayama Pref., and Mt. Watamuki in Shiga Pref., respectively. Also a redescription of *Trichotichnus* (s. str.) *pacificatorius* HABU and a key to species of the *leptopus* group from western Japan including Fukui Pref. are given.

Introduction

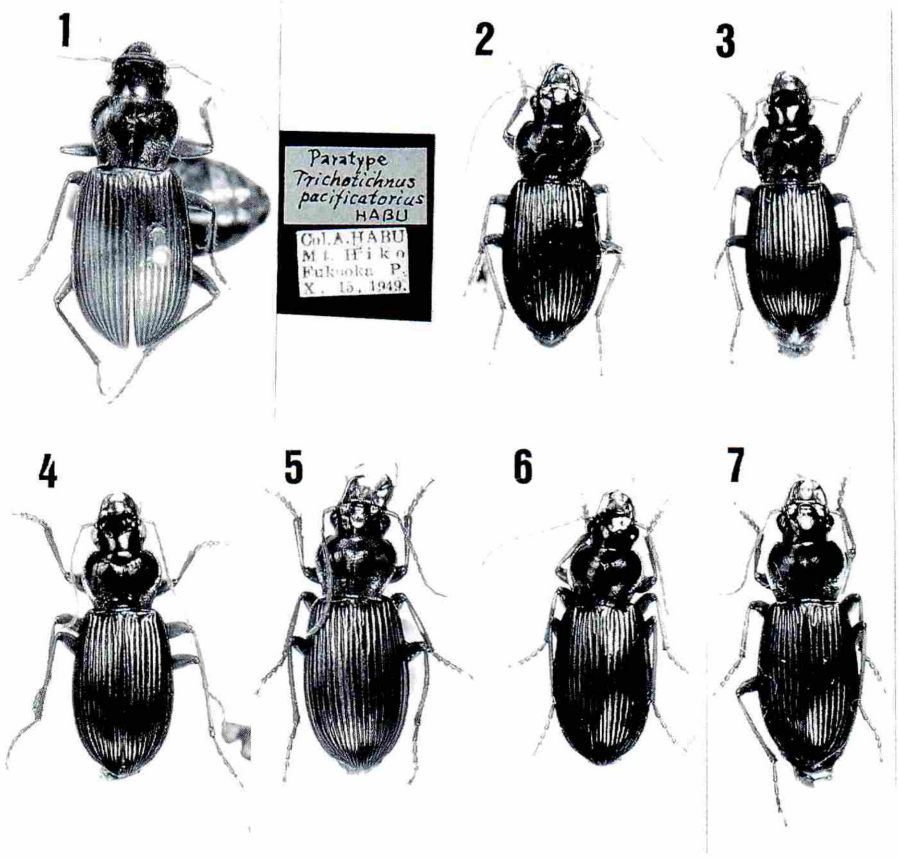
The species of the *leptopus* group (sense HABU) of the genus *Trichotichnus* MORAWITZ have the reduced hind wings and are diversified in each localities. Further, the characters are so variable within each species, that it is difficult to determine the specimens only by the external examination. Similar phenomena due to aptery are also observable in several subgenera and species groups of the genus *Pterostichus* BONELLI. The species of the *leptopus* group have been recorded from Honshu, Shikoku and Kyushu. But in Kinki District, a single species, *T.* (s. str) *edai* (JEDLIČKA) has been known from the central Kii Peninsula.

In this paper I am going to deal with eleven species from the Western Japan and to describe five new species, *Trichotichnus* (s. str.) *ishidai*, *T.* (s. str.) *isamutanakai*, *T.* (s. str.) *latemarginatus*, *T.* (s. str.) *chugokuensis*, and *T.* (*T.*) *watamukiensis*, from central Kii peninsula, Kibune in Kyoto, Mt. Mikuni in Fukui Pref., Mt. Wakasugi in Okayama Pref., and Mt. Watamuki in Shiga Pref., respectively. Also I redescribe *T.* (s. str.) *pacificatorius* HABU from Mt. Hiko in Fukuoka Pref and provide the key to the all species.

I wish to express my deep gratitude to Dr. TAKESHI MATUMURA of the Agro-environmental Institute, Tsukuba, for his kindness on the loan of the types, Dr. SHO TAKAHASHI, Kyoto, Mr. SEIJI MORITA at whose home I could examine the types of *Trichotichnus* (s. str.) *leptopus* (BATES), and Mr. ISAMU TANAKA, Nishinomiya, for their kind support. Further I heartily thanks Mr. TAICHI SHIBATA, Nishinomiya, for his continuous guidance to my study. The specific name of *T. ishidai* is dedicated to the late Dr. HIROSHI ISHIDA, who was the specialist of the Carabidae, mainly on the tribe Pterostichini, and also have made every efforts for the development of the Coleopterological Society of Japan. *T. isamutanakai* is named after Mr. ISAMU TANAKA who offered me present materials.

Key to species of *leptopus* group of genus *Trichotichnus* from western Japan including Fukui Pref.

1. Elytra densely and coarsely punctate throughout. ..... *T.* (*T.*) *edai* (JEDLIČKA)
1'. Elytra wholly or almost impunctate. ..... 2.
2. Body smaller, less than 9.0 mm in length, and well convex. ..... *T.* (*T.*) *tranquillus* HABU
2'. Body larger, more than 11.0 mm, and gently convex or rather depressed. ..... 3.



Figs. 1-7. Habitus of *Trichotichnus* (s. str.) spp.; 1, *T.* (*T.*) *pacificatorius* HABU (Paratype); 2, *T.* (*T.*) *ishidai* N. ITO sp. nov.; 3, *T.* (*T.*) *latemarginatus* N. ITO sp. nov.; 4, *T.* (*T.*) *daisenus* HABU; 5, *T.* (*T.*) *isamutanakai* N. ITO sp. nov.; 6, *T.* (*T.*) *chuhgokuensis* N. ITOsp. nov.; 7, *T.* (*T.*) *watamukiensis* N. ITO sp. nov.

3. Ventral surface of body almost impunctate. ..... *T.* (*T.*) *tsurugiyamanus* HABU
3'.Ventral surface more or less punctate on pro-, meso- and metepisterna and laterally on metasternum. 4.
4. Lateral furrows of pronotum rather wide. ..... 5.
4'.Lateral furrows of pronotum narrow. ..... 7.
5. Pronotum hardly sinuate before base, minutely prominent laterad at basal angles. .....
..... *T.* (*T.*) *daisenus* HABU
5'.Pronotum more deeply sinuate before base, well prominent laterad at basal angles. ..... 6.
6. Pronotum moderately or weakly convergent posteriorly, with lateral furrows wider. .....
..... *T.* (*T.*) *latemarginatus* N. ITO sp. nov.
6'.Pronotum rather strongly convergent posteriorly, with lateral furrows narrower. .....
..... *T.* (*T.*) *chuhgokuensis* N. ITO sp. nov.
7. Pronotum weakly and almost straightly convergent posteriorly. ..... 8.
7'.Pronotum rather strongly and sinuately convergent posteriorly. ..... 9.
8. Elytra hardly iridescent. ..... *T.* (*T.*) *watamukiensis* N. ITO sp. nov.
8'.Elytra moderately iridescent. ..... *T.* (*T.*) *uenorum* KASAHARA et Y. ITO

9. Pronotum well prominent laterad at basal angles. ..... 10.
9'.Pronotum not or slightly prominent laterad at basal angles. ..... *T.* (*T.*) *isamutanakai* N. ITO sp. nov.
10. Hind tarsus shorter, slightly longer in ♂ than and one-tenth shorter in ♀ than the width of head; microsculpture on head clearer. ..... *T.* (*T.*) *ishidai* N. ITO sp. nov.
10'.Hind tarsus longer, about one-tenth longer in ♂ than and in ♀ as long as the width of head; microsculpture on head almost invisible. ..... *T.* (*T.*) *shikokuensis* KASAHARA et Y. ITO

Trichotichnus (s. str.) *pacificatorius* HABU (Figs. 1, 8, 16, & 22)

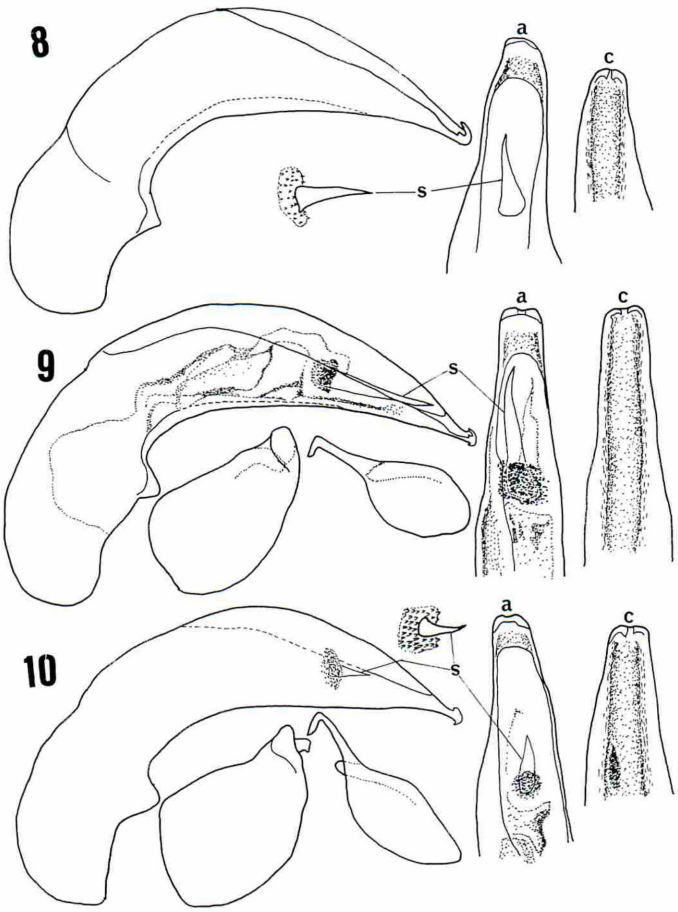
Trichotichnus (s. str.) *pacificatorius* HABU 1954, Mushi, 26:53-55. —— 1961, Bull. Nat. Inst. Agr. Sci., Ser. C, No. 13: 155, 161, & 162. —— 1972, Fauna Japonica: Carabidae, Harpalini, 21: 294-296.

Body oblong, gently convex, blackish brown, with weak iridescent lustre on elytra; femora light reddish brown, maxillae, palpi, antennae, tibiae and tarsi dark reddish brown.

Head well convex, large, a little more than three-fourths of pronotal width, with several punctures in frons; labrum subquadrate, shallowly and widely notched at apex; clypeus transversely depressed along middle, obscurely rugose near sides, shallowly emarginate at apex; clypeal suture shallow and not clear in middle, a little deeper near each end; frontal impressions also shallow, obliquely running towards eyes and reaching supraorbital grooves; interocular space wide, about three-fourths of width of head including eyes; eyes small and weakly prominent; temples somewhat swollen,very obtusely meeting with neck constriction; mandibles robust and blunt at tips, left mandible minutely produced at retinacular tooth, the tooth of right one indistinct; antennae slender, surpassing a little beyond pronotal base, 3rd segment pubescent in apical third, one-tenth longer than the 4th and twice the 2nd; labial palpi slender, 2nd segment a little longer than the 3rd (1.1 in ratio); ligula expanded distad from apical third, free from paraglossae in the expansion, bisinuate at apex; paraglossae narrow near apices, not produced beyond ligula; mentum with median tooth weakly produced and rounded at tip, epilobes narrow, not widened apicad; microsculpture partly visible, consisting of vague transverse meshes.

Pronotum subcordate, widest at apical third, two-fifths wider than long, gently convex, flat on disc; sides clearly arcuate in front and almost straightly convergent behind from the widest point, not reflexed near base; apex shallowly emarginate, unbordered in middle; base almost as wide as apex, hardly bisinuate and entirely bordered; apical angles widely rounded; basal angles rectangular, minutely toothed at tips; lateral furrows narrow throughout; basal foveae deep and longitudinally engraved, widely isolated from lateral borders; front transverse impression rather deeply carved, the hind one obscure; median line fine and more or less deep, reaching apex and base; surface minutely and moderately punctate on disc, coarsely so in basal foveae where the punctures are confluent in part, finely rugose in front transverse impression; microsculpture observable as obscure transverse lines in lateral areas and as transverse meshes near punctures in lateral furrows and basal foveae.

Elytra ovally oblong, one-third as wide as pronotum, weakly convex, without puncture; sides gently rounded in humeri, thence slightly arcuately widened to apical two-fifths, apical sinus shallow; apices more or less produced, narrowly rounded and separated at tips; each base shallowly emarginate, forming an obtuse angle with lateral border; striae fine and rather deep, finely crenulate, scutellar striole long; intervals weakly convex on disc, increasing in the con-



Figs. 8-10. Male genitalia of *Trichotichnus* (s. str.) spp. 8, *T.* (*T.*) *pacificatorius* HABU (Paratype); 9, *T.* (*T.*) *ishidai* N. ITO sp. nov.; 10, *T.* (*T.*) *isamutanakai* N. ITO sp. nov.; a: dorsal aspect; c: ventral aspect; s: sclerite in inner sac.

vexity towards sides and apices, 3rd interval with one or two setiferous pores; marginal series continuous, composed of (25-31) umbilicate pores; microsculpture invisible under 80× magnification. Hind wings reduced to one-third of elytral length.

Ventral surface almost smooth, very sparsely punctate in pro- meso- and metepisterna and laterally on metasternum; metepisternum subquadrate, as long as wide; 6th abdominal segment slightly arcuate in ♂ and widely rounded in ♀ at apex.

Hind femur bisetose along hind margin; fore tibiae slender, clearly sulcate in apical half and vaguely so in the remaining portion, truncate at apex, terminal spur simple and elongate; mid tarsi in ♂ with adhesive squamae only at apex, hind tarsi in ♂ almost as long as and one-eleventh shorter in ♀ than the width of head, 1st segment one-fifth shorter than the 2nd and 3rd together, 2nd one-fourth longer than the 3rd which is a half longer than the 4th, claw segment

quadri- or quinquesetose at each ventral margin.

Aedeagus (Fig. 8) thick, clearly arcuate, straightly tapered distad; apex weakly thickened; apical lobe as long as wide, narrowly bordered at tip; inner sac armed with a robust peg-shaped sclerite. Stylus (Fig. 16) more or less robust, weakly arcuate externally, with a relatively long spine along each external margin; basal segment bisetose apico-externally; valvifer bisetose at apex.

Length: 12.1-12.4 mm. Width: 5.1-5.3 mm.

Specimens examined: paratypes, 1 ♂, Mt. Hiko, Fukuoka Pref., Japan, 15. X. 1949, A. HABU leg., 1 ♀ ditto, 20. X. 1949; same locality and collector as the paratypes, 1 ♂, 10. X. 1940, 2 ♀ ♀, 9. V. 1952, 1 ♂, 1 ♀, 28. VI. 1950, 1 ♂, 13. X. 1950.

Trichotichnus (s. str.) *ishidai* N. ITO sp. nov. (Figs. 2, 9, 17, & 22)

Body rather narrowly oblong, convexer than *Trichotichnus* (s. str.) *pacificatorius* HABU, black to slightly brownish black, rather clearly iridescent on elytra; legs brown, palpi and antennae light brown, mandibles blackish brown.

Head rather well convex, very sparsely and moderately or sometimes somewhat coarsely punctate, wide, a little more than seven-tenths as wide as pronotum (0.73~0.75 in ratio), with interocular space narrower than in *T. pacificatorius* (0.71-0.73 in ratio of it to the width of head including eyes); labrum subtrapezoidal, shallowly notched at apex; clypeus even or transversely and weakly depressed between a pair of lateral setae, protrudent at apical corners; clypeal suture fine and shallow, medially obscure in individuals; frontal impressions almost straightly divergent behind, moderately deep, shallowed near supraorbital grooves; eyes a little more prominent than those of *T. pacificatorius*; temple slightly swollen, one-third longer than the eye length; mandibles robust, clearly curved ante-apically, terebral tooth of left mandible small and rounded, the tooth of right mandible very minute and retinacular tooth of it relatively large; antennae slender, reaching apical seventh of elytra, 3rd segment hardly dilated distad, slightly longer than the 4th (1.06 in ratio) and twice the 2nd; labial palpi slender, 3rd segment as long as the 2nd; ligula wide, abruptly expanded near apex which is truncate or hardly emarginate; paraglossae wide, not reaching ligular apex, separated from ligula behind the expansion; median tooth of mentum small, rounded at apex, epilobes narrow, weakly widened forwards; microsculpture partly visible, composed of vague isodiametric meshes in the clypeal impression and laterally on frons.

Pronotum cordate, relatively convex, more steeply declivous latero-apicad than in *T. pacificatorius*, widest a little before apical two-fifths, about two-fifths wider than long (1.36-1.41 in ratio), covered with punctures sparse and minute on central area, denser near apex, and denser and coarser in lateral furrows and basal foveae where they are partly confluent; sides clearly rounded in front and sinuately contracted behind from the widest point; apex shallowly emarginate; base almost as wide as apex, truncate or hardly emarginate, entirely bordered like apex; apical angles slightly prominent, narrowly rounded; basal angles almost rectangular, triangularly and somewhat strongly produced laterad; lateral furrows narrow, weakly widened behind; basal foveae deep, circular to relatively elongate, variable in largeness, isolated from the furrows by weak swells; front transverse impressions more or less deep, clearer than the hind

one; median line complete or reduced near apex and base; microsculpture observed only in lateral furrows and basal foveae as vague transverse meshes.

Elytra elliptical, about a half longer than wide (1.44-1.55 in ratio), well declivous laterad and apicad, very sparsely punctulate apico-laterally; sides gently arcuate, very shallowly sinuate before apices; apices gently curved, narrowly separated from each other, angularly rounded at tips; bases each weakly bisinuate, forming a very obtuse angle with lateral margin; striae deep and narrow, clearly crenulate, scutellar striole long; intervals weakly convex on disc, becoming convexer towards apex and base, a setiferous pore of 3rd interval a little before middle; marginal series narrowly interrupted in middle, composed of (9-13) + (13-17) umbilicate pores; microsculpture mostly invisible, observable as obscure lines on apico-lateral portions. Hind wings reduced, two-fifths as long as the elytral length.

Ventral surface coarsely and rather densely punctate on lateral areas of prosternum and 1st abdominal segment, pro-, meso- and metepisterna, and lateral and basal areas of metasternum, with very short pubescence medially on prosternum and 2nd abdominal segment; metepisternum as long as wide; apical margin of 6th abdominal segment feebly notched in ♂ and gently arcuate in ♀.

Hind femur trisetose or rarely bisetose along hind margin; fore tibia weakly dilated distad, dorsally sulcate lengthwise, apico-laterally with three fine and long spines, terminal spur simple and slender; mid tarsi squamose ventrally in 1st to 4th segments; hind tarsus slightly longer in ♂ (1.04-1.05 in ratio) and about one-ninth shorter in ♀ than the width of head, 1st segment two-thirds to three-fourths the 2nd and 3rd together and one-third to one-fifth longer than the 2nd, 3rd a half to two-thirds longer than the 4th, claw segment trisetose along each ventral margin.

Aedeagus (Fig. 9) thick, clearly arcuate at dorsal margin; apical lobe trapezoidal, hardly emarginate at tip; apical orifice widely open, inner sac armed with a slender and very long sclerite; dorsal side longitudinally concave, weakly bordered at each lateral side of apex, with a small tooth at inner end of each border. Stylus (Fig. 17) short and robust, blunt at tip, bearing a very minute spine near middle along each external margin; basal segment with three short spines apico-externally.

Length: 11.5-11.8 mm. Width: 4.5-4.7 mm.

Holotype: ♂, Mt. Kongo, Osaka, 15. IX. 1985, N. ITO leg. (Preserved in T. SHIBATA's coll.); Paratypes: 1♀, same data as the holotype; same locality and collecter as the holotype, 1♂, 15. I. 1970, 2♂♂, 2♀♀, 9. IX. 1984, 1♀, 5. IX. 1982; same locality as the holotype, 2♀♀, 21. XI. 1982, M. YAMAMOTO; 1♂, Mt. Iwawaki, Osaka, 31. XII. 1957, T. SHIBATA leg.; 1♀, ditto, 13. IX. 1980, N. ITO leg.; 1♂, Mt. Izumikatsuragi, Osaka, 28. XII. 1957, T. SHIBATA leg.; 3♂♂, Mt. Inamura, Nara, 31. VII. 1982, N. ITO leg., 2♂♂, ditto, 13. VIII. 1958, T. SHIBATA leg.; Mt. Gomanodan, Wakayama, 14. VIII. 1956, T. SHIBATA leg.; 1♀, Mt. Watamuki, Shiga Pref., 5. VI. 1988, N. ITO leg.

The new species is allied to *Trichotichnus* (s. str.) *pacificatorius* HABU, but is different from the latter, in addition to the characteristics mentioned in the above description, in having the body smaller in size, the pronotum with the apical angles more narrowly rounded and the basal angles more prominent laterad, and the aedeagus armed with the longer sclerite in inner sac.

The species is completely sympatric with *Trichotichnus* (s. str.) *edai* JEDLIČKA. Those species can be found at the same season and place together under the stone and the fallen leaves.

Trichotichnus (s. str.) *isamutanakai* N. ITO sp. nov. (Figs. 5, 10, 18, & 22)

This new species is similar to the former new species, but is distinguished from the latter by the pronotum more strongly contracted behind and with basal angles not produced laterad and minutely toothed at tips, the elytra not punctate, and the aedeagus bearing much shorter sclerite on inner sac.

Head about three-fourths as wide as pronotum, with interocular space seven-tenths to three-fourths of the width of head; temples not developed. Pronotum about two-fifths wider than long (1.37-1.45 in ratio); sides shallowly sinuate before base; basal foveae deep and oblong, isolated from lateral furrows. Elytra oblongo-oval, about one-third wider than pronotum (1.3-1.32 in ratio) and a half longer than wide (1.48-1.54 in ratio); apices slightly or rather produced, not or narrowly separated from each other, angulate or hardly rounded at tips; marginal series subinterrupted medially, consisting of (9-15) + (11-16) umbilicate pores. Hind wings three-fifths of the elytral length. Hind tarsus short, a little longer (1.05-1.08 in ratio) in ♂ and one-seventh shorter in ♀ than the width of head, 1st segment three-tenths shorter than the 2nd and 3rd together and two-sevenths longer than the 2nd, 3rd one and five-sixths of the 4th.

Microsculpture: on head hardly visible, vaguely and isodiametrically meshed near clypeal apex and vaguely lined laterally on frons; on pronotum vaguely isodiametrically meshed in lateral furrows and basal foveae; on elytra invisible.

Aedeagus (Fig. 10) armed ventrally with a small tooth at inner end of each apical border. Stylus (Fig. 18) rather robust, weakly curved, with a comparatively long spine at each external margin; basal segment bi- or trisetose at apico-external corner.

Length: 11.0-12.5 mm. Width: 4.0-5.2 mm.

Holotype: ♂, Kibune, Kyoto pref., 2. X. 1991, I. TANAKA leg., (Preserved in T. SHIBATA's coll.). Paratypes: 1 ♂, 1 ♀, same data as the holotype; 1 ♂, 1 ♀, same locality as the holotype, 22. IX. 1957, T. SHIBATA leg.; 1 ♀, Mt. Jubusen, Souraku, Kyoto Pref., 15. IX. 1981, S. TAKAHASHI leg.; 2 ♂♂, 1 ♀, Makino, Riv. Yodo, Osaka Pref., 5. IV. 1968, N. ITO leg.; 1 ♂, Hatsutani, Osaka Pref., 9. V. 1993, N. ITO leg.; 1 ♂, 2 ♀♀, Mt. Myoken, Osaka Pref., 26. VI. 1994, N. ITO leg.

Trichotichnus (s. str.) *latemarginatus* N. ITO sp. nov. (Figs. 3, 11, 19, & 22)

Body elongate-oblong, gently convex, black, shiny, fairly iridescent on elytra; palpi, antennae and legs reddish brown or light brown, labrum and median portions of mandibles dark brown.

Head wide, a little wider than seven-tenths of the pronotal width (0.71-0.74 in ratio), rather well convex, with several minute punctures on frons; labrum subarcuately convergent forwards, rather deeply and widely notched at apex; clypeus transversely depressed along apex; clypeal suture fine and shallow, even in depth; frontal impression arcuately divergent behind, rather clearly carved, reaching supraorbital grooves; interocular space not wide, a little wider than seven-tenths the width of head (0.71- 0.74 in ratio); eyes gently or weakly prominent; temple weakly arcuate, very obtusely meeting with neck constriction, one-third of the eye length; mandibles short and thick, terebral tooth of left mandible weakly and trapezoidally produced and it of right one semicircular, retinacular tooth of left one small and arcuate and it of

right one rather well prominent and trapezoidal; antennae slender, reaching basal tenth of elytra, 3rd seg-ment three-fourths, one-tenth longer than the 4th and a little more than twice the 2nd (2.1-2.3 in ratio); labial palpi slender, 3rd segment slightly shorter than the 2nd (0.93 in ratio); ligula widely wedge-shaped, shallowly and widely notched at apex; paraglossae wide, not extending forwards beyond ligula, widely separated from ligula near ligular apex where they are narrow; mentum with median tooth widely arcuate or weakly bifid at apex, epilobes narrow and subparallel-sided; microsculpture rather clearly observable in the clypeal depression and near supraorbital grooves and vaguely so from frons to occiput, composed of isodiametric meshes.

Pronotum subcordiform, widest a little before apical two-fifths, about two-fifths wider than long (1.37-1.43 in ratio), dorsal punctures sparse and minute on central area, becoming coarser and denser towards the surrounding areas; sides more weakly arcuate in front than in usual and gently convergent behind, shallowly sinuate before base; apex shallowly emarginate, with border entire or interrupted in middle; base a little wider than apex (1.05-1.13 in ratio), truncate or hardly bisinuate, finely and completely bordered; apical angles weakly prominent, narrowly rounded; basal angles rectangular or a little sharper, minutely toothed at tips; lateral furrows wide, gradually expanded backwards, isolated from basal foveae which are deep, small and carved in a groove; front transverse impression shallow and more or less clear, the hind one obscure; median line fine and shallow, lying between both the impressions; surface vaguely and isodiametrically microsculptured in front transverse impressions, lateral furrows and basal area.

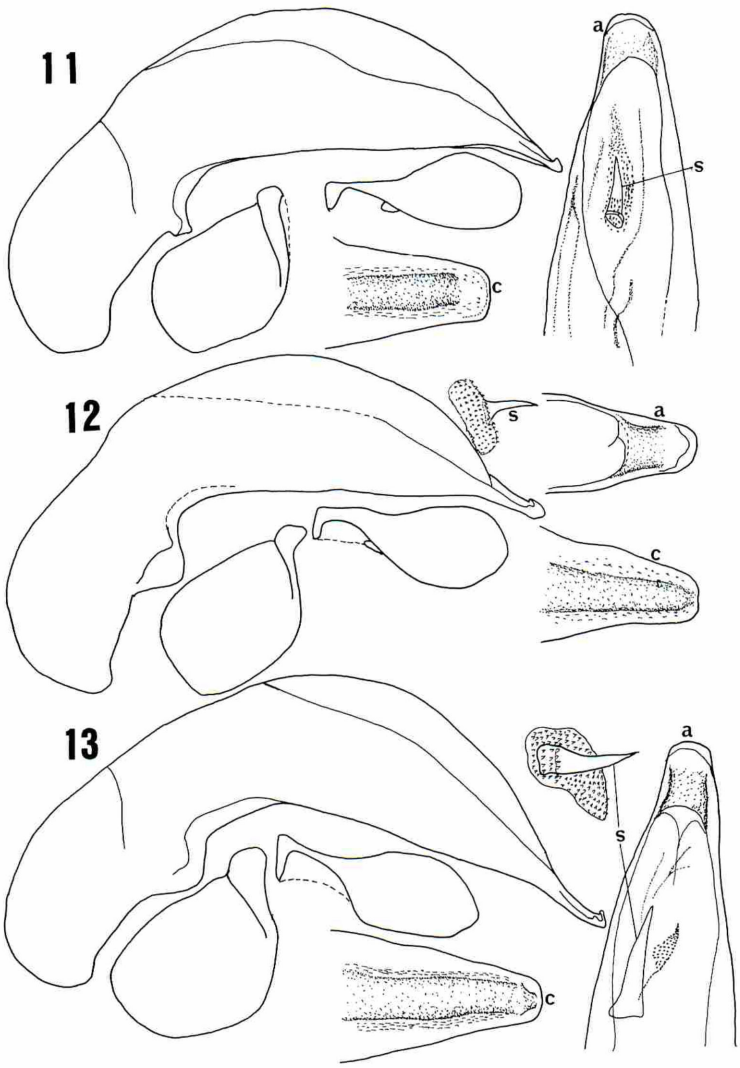
Elytra narrowly oval, a half to three-fifths longer than wide, one and one-fifth to three-tenths the pronotal width, flat on disc, more or less steeply sloped laterally, without punctures; sides clearly curved at humeri, gently arcuate in middle; apices not or weakly prominent, narrowly rounded, rather widely separated from each other, blunt at sutural angles; bases weakly oblique at sides, obtuse and angulate at humeral angles; striae deep, scutellar striole not long; intervals gently convex on disc, incrassate in convexity towards bases, sides and apices, weakly carinate latero-basally, a dorsal pore on 3rd interval near middle; marginal series subinterrupted or rarely continued, composed of (10-16) + (13-16) umbilicate pores; microsculpture invisible or hardly observable as transverse lines near apices. Hind wings well reduced, one-fourth of the elytral length.

Ventral surface somewhat coarsely punctate on meso- and metepisterna and laterally on metasternum, obscurely so on prepisterna, and finely so on prosternum and on 2nd abdominal segment between hind coxae where each puncture bears short pubescence; 6th abdominal segment truncate in ♂ and widely arcuate in ♀ at apex.

Hind femorur bi- or trisetose on hind margin; fore tibiae entirely sulcate on dorsal side, armed with three spines at apico-external margin, terminal spur relatively long and slender; hind tarsus a little longer (1.05-1.09 in ratio) in ♂ than and in ♀ as long as the width of head, 1st segment one-sixth shorter than the 2nd and 3rd combined and three-sevenths longer than the 2nd, 3rd two-thirds longer than the 4th, claw segment quadrisetose ventrally along each side.

Aedeagus (Fig. 11) robust, weakly curved before apex; apical lobe a half wider than long, widely rounded at distal margin; a sclerite of inner sac short; ventral surface without tooth at apex. Stylus (Fig. 19) more or less clearly arcuate, with a small spine a little behind middle at each external margin; basal segment bisetose apico-external corner; valvifer with three long setae near apex and a fine and short seta behind apex.

Length: 11.7-12.3 mm. Width: 4.5-4.8 mm.



Figs. 11-13. Male genitalia of *Trichotichnus* (s. str.) spp.; 11, *T.* (*T.*) *latemarginatus* N. Ito sp. nov.; 12, *T.* (*T.*) *chu-gokuensis* N. Ito sp. nov.; 13, *T.* (*T.*) *watamukiensis* N. Ito sp. nov.; a: dorsal aspect; c: ventral aspect; s: sclerite on inner sac.

Holotype: ♂, Mt. Mikuni, Fukui Pref., 13. VI. 1982, N. Ito leg. (Preserved in T. Shibata's coll.). Paratypes: 1 ♂, 5♀♀, same data as the holotype; 1 ♂, Hinogawa Val., Imajo, Fukui Pref., 13. VI. 1982, Y. Hayashi leg.

The new species is allied to the former new species, *Trichotichnus* (s. str.) *ishidai*, but differs from the latter in having the pronotum more weakly contracted forwards and backwards and bearing wider lateral furrows, the elytra a little more elongate and not punctate, the hind tarsus quadrisetose along each ventral margin of claw segment instead of being trisetose, and the aedeagus not toothed at ventral apex and with a much shorter sclerite on inner sac.

Trichotichnus (s. str.) *daisenus* HABU (Figs. 4, 14, 15, & 22)

Trichotichnus daisenus HABU, 1972, Fauna Japonica: Carabidae, Harpalini, 21: 296-298. —— 1980, Ent. Rev. Japan, 34: 77.

Specimens examined: 1 ♂, 1 ♀, Mt. Daisen, Tottori Pref., 23. IX. 1960, T. SHIBATA leg.

Trichotichnus (s. str.) *chugokuensis* N. ITO sp. nov. (Figs. 6, 12, 20, & 22)

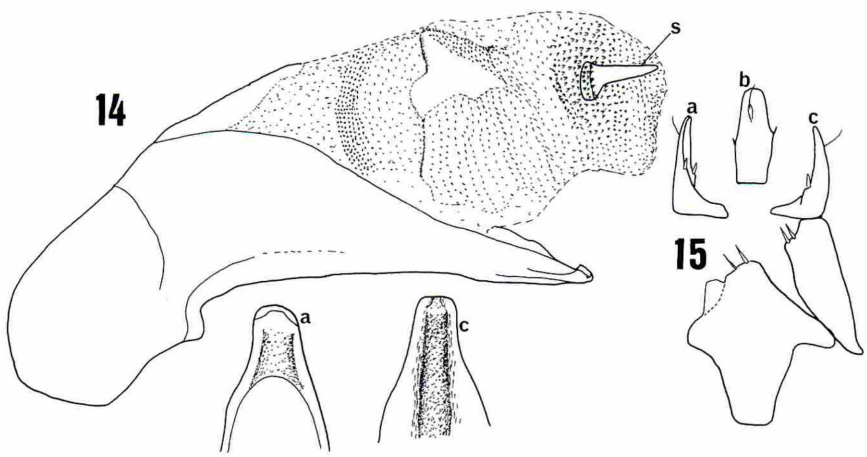
The new species is different from *Trichotichnus* (s. str.) *daisenus* HABU in having the pronotum more strongly convergent behind and sinuate before base, the elytra more strongly iridescent and with the interval not convex on disc and the sclerite of inner sac shorter.

Head not punctate, comparatively narrow, three-tenths of the pronotal width; temple somewhat swollen, about one-third of the eye length. Pronotum one-third wider than long; base as wide as or slightly wider than apex, shallowly emarginate; lateral furrows wide like *T. daisenus* or relatively narrow. Elytra ovally oblong, three-fifths longer than wide, gently convex, without punctures; sides clearly arcuate at humeri, very obtusely and angularly meeting with bases; marginal series composed of (11-13) + (12-14) umbilicate pores in the examples from Akazai Val. and (14-16) + (13-14) in those from Mt. Wakasugi. Hind wings one-fourth of the elytral length. Hind tarsus a little longer (1.07-1.08 in ratio) in ♂ than and hardly longer in ♀ than the width of head, 1st segment one-sixth shorter than the 2nd and 3rd together and a half longer than the2nd, 3rd twice the 4th.

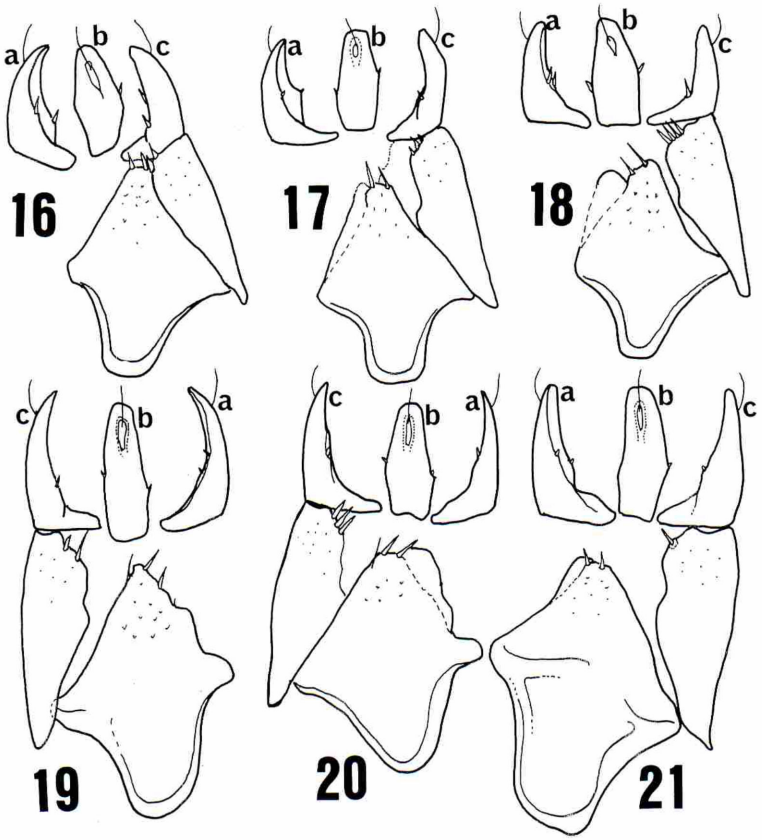
Aedeagus (Fig. 12) minutely hooked above; apical lobes as wide as or a little longer than wide, subtruncate or widely arcuate at tip; ventral side shallowly and longitudinally concaved, not dentate at apex. Stylus (Fig. 20) weakly curved, with a very small spine medially at each external margin; basal segment trisetose apico-externally.

Length: 12.0-13.0 mm. Width: 4.4-5.0 mm.

Holotype: ♂, Mt. Wakasugi, Okayama, 11. VI. 1989, N. ITO leg. (Preserved in T. SHIBATA's coll.). Paratypes: 1 ♂, same data as the holotype; 1 ♂, 1 ♀, Akazai Val., Hyogo Pref., 2. IX. 1979, N. ITO leg.; 1 ♀, ditto, 11. VII. 1985.



Figs. 14-15. Genitalia of *Trichotichnus* (s. str.) *daisenus* HABU 14, male ; 15, female ; a: dorsal aspect; b: lateral aspect; c: ventral aspect; s: sclerite on inner sac.



Figs. 16-21. Female genitalia of *Trichotichnus* (s. str.) spp.; 16, *T.* (*T.*) *pacificatorius* HABU (Paratype); 17, *T.* (*T.*) *ishidai* N. ITO sp. nov.; 18, *T.* (*T.*) *isamutanakai* N. ITO sp. nov.; 19, *T.* (*T.*) *latemarginatus* N. ITO sp. nov.; 20, *T.* (*T.*) *chugokuensis* N. ITO sp. nov.; 21, *T.* (*T.*) *watamukiensis* N. ITO sp. nov.; a: dorsal aspect; b: lateral aspect; c: ventral aspect.

Trichotichnus (s. str.) *watamukiensis* N. ITO sp. nov. (Figs.7, 13, 21, & 22)

The new species is closely allied to *Trichotichnus* (s. str.) *daisenus* HABU, but is distinguished from the latter by the puncture on the pronotum denser and more widely scattered, the elytral bases more deeply bisinuate and the claw segment of hind tarsus quinquesetose along each ventral margin instead of being quadrisetose, and the sclerite of aedeagus a little longer.

Head a little more than seven-tenths the pronotal width, interocular space a little narrower than the width of head (0.72-0.74 in ratio). Pronotum subquadrate, one-third wider than long, gently and almost straightly convergent behind from the widest point and feebly sinuate before base which is a little wider than apex, shallowly emarginate and finely bordered. Elytra flattened like *T. pacifcatorius*, about three-fifths longer than wide; intervals well convex basally,

subcarinate near humeri. Hind tarsus a little longer in ♂ and in ♀ as long as the width of head, 1st segment one-fifth shorter than the 2nd and 3rd together and a half longer than the 2nd, 4th two-thirds the 3rd.

Aedeagus (Fig. 13) thick and large, gradually thinned towards apex; apical lobe as long as wide, weakly arcuate at distal margin; ventral surface depressed along middle, edentate at apex. Stylus (Fig. 21) rather robust, weakly curved, with a very small spine near base at each external margin; basal segment apico-externally with a short spine.

Length: 13.3-13.8 mm. Width: 4.9-5.2 mm.

Holotype: ♂, Mt. Watamuki, Shiga Pref., 5. VI. 1988, N. ITO leg. (Preserved in T. SHIBATA's coll.). Paratypes: 1 ♂,2 ♀♀, same data as the holotype.

Trichotichnus (s. str.) *tranquillus* HABU (Fig. 22)

Trichotichnus tranquillus HABU, 1954, Mushi, 26:55-56. —— 1954, Bull. Nat. Inst. Agr. Sci., C, No.4:260. ——1961, Ibid., C, No.13: 150. —— 1973, Fauna Japonica, Carabidae: Harpalini: 236, 291-294.

Specimens examined: 2 ♀♀, Mt. Hiko, Fukuoka Pref., 27. V. 1961, Y. KIMURA leg.

The species is easily distinguished from the other species of the group by the body small and well convex.

Trichotichnus (s. str.) *tsurugiyamanus* HABU (Fig.22)

Trichotichnus tsurugiyamanus HABU, 1959, Kontyu , 27:131-133. —— 1961, Bull. Nat. Inst. Agr. Sci., C, No.4:154. 1973, Fauna Japonica, Carabidae: Harpalini: 236, 291-294.

Specimens examined: 1 ♂, Kuwadaira, Minokoshi, Mt. Tsurugi, Tokushima Pref., 3. V. 1958, N. KAWANO leg.; 1 ♀, Mt. Tsurugi, Tokushima Pref., 30. VII. 1960, T. SHIBATA leg.

Trichotichnus (s. str.) *uenorum* KASAHARA et Y. ITO (Fig.22)

Trichotichnus (*Trichotichnus*) *uenorum* KASAHARA et Y. ITO, 1995, Spec. Bull. Jpn. Soc. Coleopterol., Tokyo, 4: 259-262.

Trichotichnus (s. str.) *shikokuensis* KASAHARA et Y. ITO (Fig. 22)

Trichotichnus (*Trichotichnus*) *shikokuensis* KASAHARA et Y. ITO, 1995, Spec. Bull. Jpn. Soc. Coleopterol., Tokyo, 4: 262-265.

Specimens examined: 1 ♂, Mt. Tsurugi, Tokushima Pref., 30. VII. 1960, T. SHIBATA leg., 1 ♀, ditto, 29. VII. 1960, 1 ♀, Tengu-kogen, Yanadani-mura, Ehime Pref., 16-17. X. 1993, K. AKITA, K. OKADA, N. OHBAYASHI, M. KAWANABE, M. SAKAI et Y. UTSUNOMIYA leg., 1 ♂, Mt. Ohkawayama, Kagawa Pref., 23. XI. 1970, S. NAGAI leg.

HABU (1972) mentioned that he was not sure of the identity whether the specimen from Mt. Ohkawayama was *Trichotichnus* (s. str.) *leptopus* BATES and it was sorted as *T. leptopus* in HABU's collection, Tsukuba. KASAHARA (1995) presumed that this specimen might be *T. uenorum*. In consequence of my examination of the example, it was found that the pronotum was sinuately convergent

behind and the aedeagus was armed with a sclerite moderate in length on inner sac, minutely dentate at ventral apex and feebly notched at tip instead of being edentate and arcuate like *T. leptopus*, the holotype of which I examined. Those characteristics agree with those of *T. shikokuensis*.

Trichotichnus (s. str.) *edai* (JEDLIČKA) (Fig. 22)

Velmius edai JEDLITČKA, 1952, Acta Mus. Silensia, 2(A):51-52.—— 1961, Acta ent. Mus. nat. Prag., 34:160. NAKANE, 1963, Icon. Ins. Jap., Color natur. edit., 2:43.

Trichotichnus (*Velmius*) *edai*, HABU, 1955, Bull. Nat. Inst. Agr. Sci. Ser. C, No. 5:156. —— 1961, Bull. Nat. Inst. Agr. Sci., C, No.4:154-156.

Trichotichnus (*Trichotichnus*) edai, HABU, Fauna Japonica, Carabidae: Harpalini: 236, 299-300.

Specimens examined: Mt. Kongo, Osaka Pref., 1♂, 1♀, 15. IX. 1985, N. ITO leg., 2♂♂, 5♀♀, 30. XI. 1981, M. YAMAMOTO leg., 1♂, 1♀, ditto, 12. X. 1982, 2♂♂, ditto, 21. XI. 1982; Mt. Ohdai, Nara Pref., 1♀, 16. VII. 1963, H. YOKOYAMA leg., 1♂, 21. VIII. 1976, Y. KIYOYAMA leg., 1♂, 2♀♀, 26. VII. 1980, N. ITO leg., 1♀, ditto, 19. VI. 1983; Mt. Iwawaki, Osaka Pref., 1♀, 6. I. 1957, T. SHIBATA leg., 1♀, ditto, 31.XII. 1957, 1♀, ditto, 31. XII. 1958; 1♂, Mt. Goma, Wakayama Pref., 2. X. 1976, K. KUZUGAMI leg.; 1♂, Mt. Obako, Wakayama, 27. VI. 1982, N. ITO leg.; 1♂, Mt. Misen, Nara Pref., 11. VI. 1995, Y. OKUDA leg.

The present species is distinct in the species of the *leptops* group by the elytra densely and coarsely punctate.

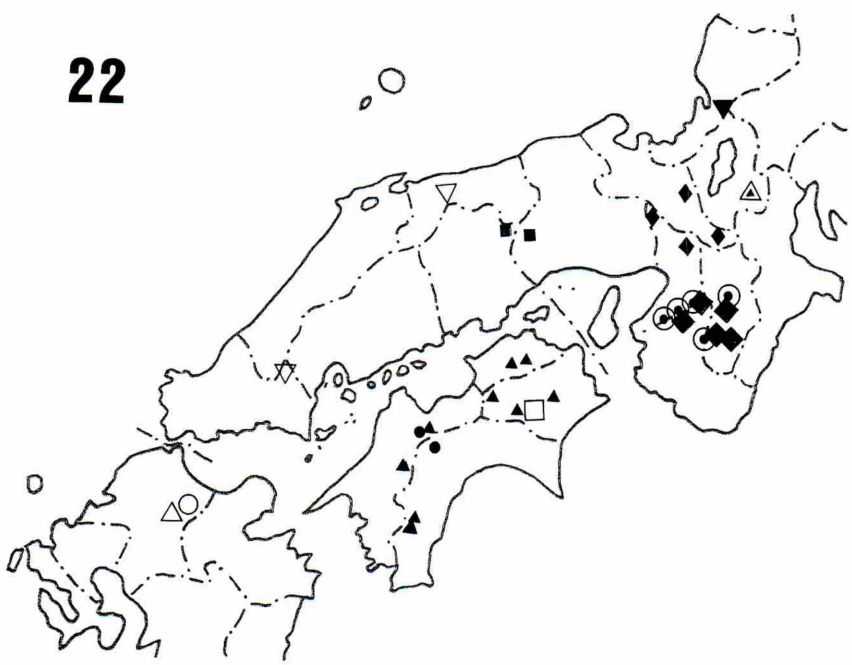


Fig. 22. Map showing the distribution of species of leptopus group from western Japan. ,○, *T.* (*T.*) *pacificatorius* HABU (Paratype); △, *T.* (*T.*) *tranquillus* HABU; □, *T.* (*T.*) *tsurugiyamanus* HABU; ●, *T.* (*T.*) *uenorum* KASAHARA et Y. ITO; ▲, *T.* (*T*) *shikokuensis* KASAHARAet Y. ITO; ▽, *T.* (*T.*) *daisenus* HABU; ■, *T.* (*T.*) *chuhgokuensis* N. ITO sp. nov.; ♦, *T.* (*T.*) *isamutanakai* N. ITO sp. nov.; ⦿, *T.* (*T.*) *edai* (JEDLICKA); ◆, *T.* (*T.*) *ishidai* N. ITO sp. nov.; ◬, *T.* (*T.*) *watamukiensis* N. ITO sp. nov.; ▼*T* (*T.*) *latemarginatus* N. ITO sp. nov.

References

HABU, A., 1954. On four new species of *Trichotichnus* from Mt. Hiko, Kyushu (Coleoptera), (The Carabidae-fauna of Mt. Hiko, II). *Mushi*, 26:53-59.

———— 1954. Species of the Genus *Trichotichnus* (Coleoptera, Carabidae) from Mt. Hiko, Kyushu (The Carabidae-fauna of Mt. Hiko, VI). *Bull. Nat. Inst. Agr. Sci.,* Ser. C, No. 4:245-262.

———— 1955. Synonymical notes on my studies in Bull. Nat. Inst. Agr. Sci., Ser. C, no. 4 (1954). *Bull. Nat. Inst. Agr. Sci.* Ser. C, No. 5:156.

———— 1959. New species collected by Professor M. CHUJO on Mt. Tsurugiyama in Shikoku, Japan (Coleoptera, Carabidae). *Kontyu* , 27: 126-133.

———— 1961. Revisional study of the species of the Trichotichini, the Subtribe of the Tribe Harpalini, from Japan (Coleoptera, Carabidae). *Bull. Nat. Inst. Agr. Sci.* Ser. C, No. 13:127-169.

———— 1973. Carabidae: Harpalini, Insecta: Coleoptera. in *Fauna Japonica*. 430 pp. Keigaku Publishing, Tokyo.

———— 1980. Notes and Descriptions of some Harpalini from Japan (Coleoptera, Carabidae). *Ent. Rev. Japan*, 34:75-82.

JEDLLICKA, A., 1952. Novi strevl ci z materi lu Slezsk ho museua v Opave. Noveaux Carabides de la collection du Muse Silsien Opava. *Acta Mus. Sil s.*, (A)2: 51-53.

———— 1961. Neue Carabiden aus der palaearktischen Region (Coleoptera). *Acta ent. Mus. nat. Prag.*, 34:155-166.

KASAHARA, S. et al, 1995. Two new *Trichotichnus* (Coleoptera, Carabidae) from Shikoku, Southwest Japan. *Spec. Bull. Jpn. Soc. Coleopterol., Tokyo*, 4:259-266.

(Received Sep. 30, 1996: Accepted Oct. 19, 1996)

Correction

I would like to amend the following points:

In Entomological Review of Japan, 51(1);

P. 53: in the line 24, for (Figs. 1 & 7) read (Figs. 1 & 8)

P. 55: in the line 39, for (Fig. 7) read (Fig. 8)

P. 58: in the line 8, for (Figs. 3 & 8) read (Figs. 3 & 7)

P. 59: in the line 4, for (figs. 4, 9, 10 & 14) read (Figs. 4, 11, 12 & 14)

P. 61: in the line 2, for (Fig. 10) read (Fig. 11)

P. 61: in the line 4, for (Fig. 11) read (Fig. 12)

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

〒501-61　岐阜県羽島郡川島町
☎ 058689-2101

エーザイ川島工園内

会　　報

会費納入のお願い

本学会の会費は前納制です．１９９７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，投稿原稿の審査制やＤＴＰなどの採用により原稿の事前処理に以前より時間がかかり，最終校を終えるのが送れるため，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．

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．

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

〒558　大阪市住吉区苅田２-１６-５　レジデンス寿 202　林　匡夫

〒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．

昆虫学評論 Entomological Review of Japan
第５１巻２号　Vol. 51, No. 2

平成８年１２月１５日発行
Published on December 15, 1996

発行者　林　匡夫
発行所　日本甲虫学会
〒５５８　大阪市住吉区苅田２-１６-５
レジデンス寿２０２
印刷所　ナニワ印刷株式会社
〒５３０　大阪市北区天満１-９-１９

CONTENTS　第５１巻２号　目次

Short Communication　短　報
