

Dryopoidea of the Ryukyu Archipelago, II\*

(Coleoptera)

by

Masataka SATÔ

Family Chelonariidae

Key to the genera of the family Chelonariidae in the Ryukyus

- 1 (2) Anterior and lateral margins of pronotum not edged. Basal half of epipleura narrow. Distal process of male genitalia long .....  
.....*Chelonarium* Fabricius
- 2 (1) Anterior and lateral margins of pronotum distinctly edged. Basal half of epipleura broad. Distal process of male genitalia short .....  
..... *Pseudochelonarium* Pic

Genus *Chelonarium* Fabricius

*Chelonarium* Fabricius, 1801. Syst. Eleuth. 1 : 101.

Type-species : *Chelonarium atrum* Fabricius, 1801.

*Chelonarium yakushmanum* Nakane

*Chelonarium yakushmanum* Nakane, 1963. Fragm. Coleopt. 11 : 43 (Yaku-shima I.); Nakane, 1963. in Icon, Ins. Jap. Color. natur. ed. 2 (Col.) : 144, pl. 72, f. 33 (Yaku-shima I.).

Dr. T. Nakane kindly compared my own specimens of Amami-Ôshima I. with his type-specimen of Yaku-shima I. and he suggested that the body of the former is rather slender than that of the latter. The following description is based upon the specimen of Amami-Ôshima I.

Body oblong-oval, strongly convex, shining, closely covered with yellowish to brownish, fine, suberect and rather long hairs above and with yellowish and recumbent hairs beneath, while the hairs of pronotum and head somewhat finer than those of elytra. Colour reddish-brown to dark reddish-brown; head, pronotum, anterior, lateral and sutural margins of elytra and under surface mostly darkened; terminal eight joints of antennae, palpi and tarsi testaceous.

Head small, concealed under pronotum, distinctly, closely and somewhat rugosely punctate; eyes lateral, large, prominent and a little broader than the distance between them; antennae serrate from fifth to twelfth joints, first and second small, third and fourth stout, fourth the longest, fifth the smallest.

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\* Part 1, Jour Nagoya Women's College, 11 · 76—94 (1965)

Pronotum moderately convex, about 2.4 times as broad as long, broadest at base, narrowed anteriorly, front margin rounded, hind angles rectangular, posterior margin moderately crenulate; surface closely and strongly punctate, the punctures well defined and becoming sparser posteriorly and denser anteriorly, interstices smooth. Scutellum subshield-shaped, provided with a spot of white hairs on the middle.

Elytra broader than pronotum, about 1.5 times as long as broad, the sides gradually rounded, surface sparsely and finely punctate, interstices finely and more or less rugosely aciculate, scattered with twenty or more small spots of white hairs and at apical two-fifths the spots arrange like a transverse band.

Ventral surface closely and distinctly punctate. Legs stout, more or less flattened, closely rugose-punctate, outer edge of tibiae dentate, third tarsal joint distinctly lobated beneath, claws distinctly dilated at base.

Male genitalia: basal piece large, subcylindrical, about 3.2 times as long as paramera, lateral sides inwardly curved upwards; paramera short, curved inwardly, narrowed anteriorly with the sharply rounded apex, appendages small; distal process very long, slender, bent and longer than the length of basal piece; median lobe stout, emarginate at apex; median struts long and over the base of median process which is bifurcate.

Length: 5.50 - 5.94 mm; breadth: 2.69 - 2.94 mm.

Specimens examined: 2 exs., Hatsuno, Amami-Ôshima I., June 24, 27, 1961, T. Shibata leg; 14 exs., ditto, July 6-12, 1962, N. Ohbayashi leg.; 16 exs.

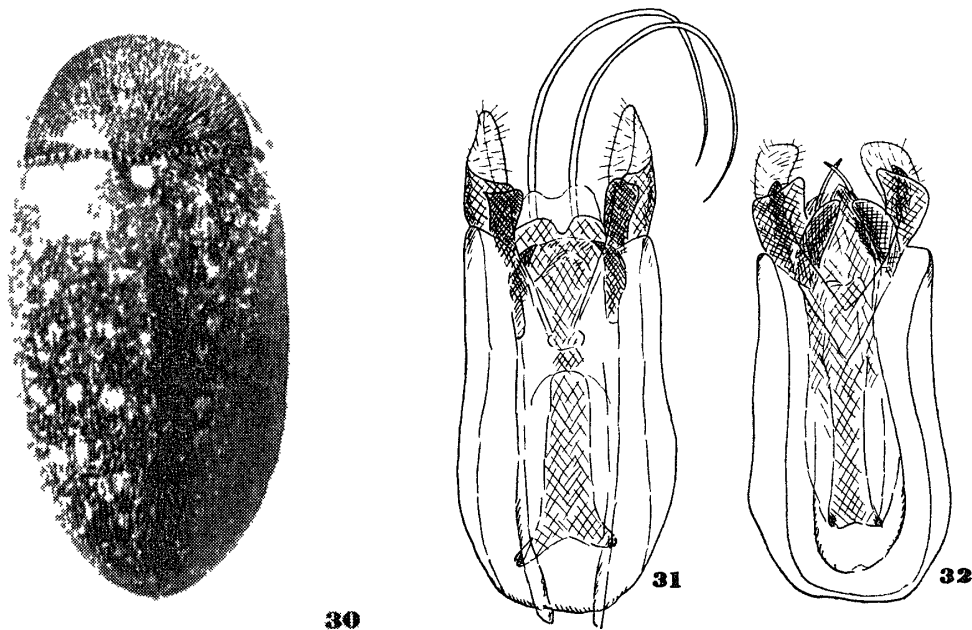


Fig 30 *Pseudochelonarium ohbayashii* M Satô

Fig 31 Male genitalia of *Chelonarium yakushimanum* Nakane (Amami-Ôshima I )

Fig 32 Male genitalia of *Pseudochelonarium ohbayashii* M Satô (Ishigaki-jima I )

Ikari, Amami-Ôshima I., June 30, 1961, T. Shibata leg.; 1 ex. Nada-kawa, Amami-Ôshima I., July 16, 1962, N. Ohbayashi leg.

Distribution : Yaku-shima I. of the Ôsumi Islands : Amami-Ôshima I.\* of the Amami Islands.

Genus *Pseudochelonarium* Pic

*Pseudochelonarium* Pic, 1916. Mel. exot.-Ent. 19 : 1.

Type-species : *Pseudochelonarium hirsutum* Pic, 1916.

*Pseudochelonarium ohbayashii* (M. Satô), comb. nov

*Chelonarium ohbayashi* M. Satô, 1964. Bull. Jap. ent. Acad. 1 (7) : 36 (Ishigaki-jima I. : Mt. Omoto-dake, Mt. Banna-dake, Iriomote-jima I. : Inaba).

In the original description, the species was described as a member of *Chelonarium* and was compared with *C. yakushmanum* Nakane. The species does not belong to *Chelonarium* but *Pseudochelonarium*. It is related to *P. subhirtum* M'quignon, but can be separated from the latter in the dorsal pubescence.

Male genitalia : basal piece large, subcylindrical, lateral sides inwardly curved upwards ; paramera short, slightly expanded anteriorly, with dully rounded apex, appendages large ; median lobe moderate, dully pointed at the tip, distal process short, median struts attaining the base of median process which is distinct.

Specimens examined : 2 exs., Hateruma-jima I., July 27, 1964, M. Yasui and T. Ito leg. ; 2 exs., Miyako-jima I., July 15, 1962, Y. Hama leg. ; 1 ex., Yoshino, Miyako-jima I., June 20, 1964, H. Konishi leg. ; 2 exs., Yonaguni-jima I., June 25, 1964, H. Konishi leg.

Distribution : Miyako-jima I.\* of the Miyako Islands : Ishigaki-jima I., Iriomote-jima I., Yonaguni-jima I.\*, Hateruma-jima I\* of the Yayeyama Islands.

References concerning the family Chelonariidae of  
the Ryukyu Archipelago

Nakane, T. 1963. New or little-known Coleoptera from Japan and its adjacent regions, 22, *Fragm. Coleopt.* 10-12: 42-48.

Nakane, T. et al. 1963. *Iconographia Insectrum Japonicorum Colore naturali edita 2 (Coleoptera)* : 1-443, pls. 192 (in Japanese).

Satô, M. 1964. Descriptions of the Dryopoid-beetles from the Ryukyus, *Bull. Jap. ent. Acad.* 1 ((7) : 31-37.

Family Limnichidae

Four species belonging to four genera of Limnichidae are known from the Ryukyu Archipelago. All of them are recently described by me in the other paper. Therefore, the taxonomic notes on them are exclude here.

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\* Asterisk means the new record from respective island.

Key to the subfamilies and genera of the family

Limnichidae in the Ryukyus

- 1 (6) Body oval. Eyes small, not prominent and broadly separated on vertex. Second joint of maxillary palpi shorter than third. Tarsi 5-5-5 segmented ..... Limnichinae
- 2 (5) Dorsal surface clothed with recumbent pubescence. Maxillary palpi somewhat slender. Elytra closely punctate. Male genitalia lacking any bristle at the base of basal lobe.
- 3 (4) Pronotum lacking a row of punctures along just behind the anterior margin. Terminal five joints of antennae moniliform and forming a loose club..... *Pelochares* Mulsant et Rey
- 4 (3) Pronotum bearing a row of punctures along just behind the anterior margin. Terminal five joints of antennae simply clavate ..... *Limnichomorphus* Pic
- 5 (2) Dorsal surface clothed with recumbent pubescence intermixed with long hair. Maxillary palpi somewhat stout. Elytra sparsely punctate. Male genitalia provided with some bristles at the base of basal lobe..... *Chibidoronus* M. Satô
- 6 (1) Body elongate-oval. Eyes large, prominent and narrowly separated on vertex. Second joint of maxillary palpi longer than third. Tarsi 4-5-5 segmented..... Thaumastodinae

Subfamily Limnichinae

Genus *Pelochares* Mulsant et Rey

*Pelochares* Mulsant et Rey, 1869. Hist. Nat. Col. France, Piluliform : 161.

Type-species : *Pelochares emarginatus* Mulsant et Rey, 1869.

*Pelochares ryukyuensis* M. Satô

*Pelochares ryukyuensis* M. Satô, 1966. Trans. Shikoku Ent. Soc., 9 (2) : 57 (Takara-jima I., Amami-Ôshima I., Okinawa-hontô I., Iriomote-jima I.).

*Pelochares* sp. M. Satô, 1965. Spec. Bull. Lep. Soc. Japan, 1 : 123 (Formosa. Taiman).

Distribution : Takara-jima I. of the Tokara Islands : Amami-Ôshima I. of the Amami Islands, Okinawa-hontô I. of the Okinawa Islands : Iriomote-jima I. of the Yayeyama Islands, and Formosa.

Genus *Limnichomorphus* Pic

*Limnichomorphus* Pic, 1922. Mel. exot.-Ent., 36 : 4.

Type-species : *Limnichomorphus curtulus* Pic, 1922.

*Limnichomorphus ohbayashu* M. Satô

*Limnichomorphus ohbayashu* M. Satô, 1966. Trans. Shikoku Ent. Soc., 9 (2) : 58 (Iriomote-jima I. · Shirahama).

Distribution . Iriomote-jima I. of the Yayeyama Islands.

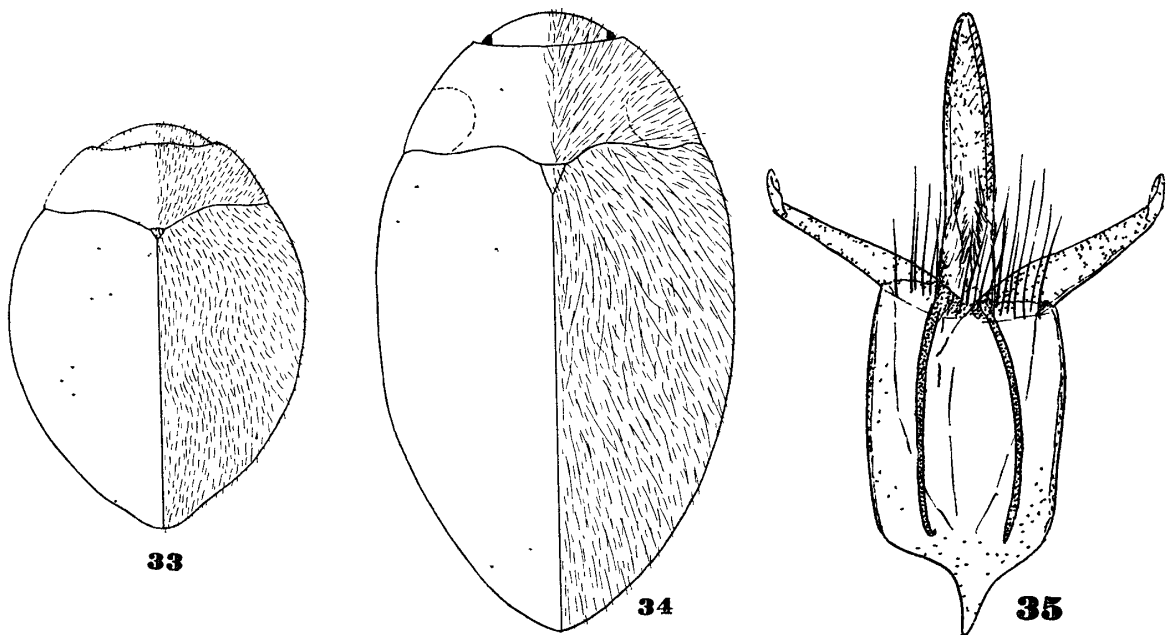


Fig. 33. *Limmchomorphus ohbayashi* M. Satô

Fig. 34. *Chibidoronus aureus* M. Satô

Fig. 35. Male genitalia of *Chibidoronus aureus* M. Satô

Genus *Chibidoronus* M. Satô

*Chibidoronus* M. Satô, 1966. Trans. Shikoku Ent. Soc., 9 (2) : 59.

Type-species : *Chibidoronus aureus* M. Satô, 1966.

*Chibidoronus aureus* M. Satô

*Chibidoronus aureus* M. Satô, 1966. Trans. Shikoku Ent. Soc. 9 (2) : 60 (Iriomote-jima I. : Shirahama).

Distribution : Iriomote-jima I. of the Yayeyama Islands.

Subfamily Thaumastodinae

Genus *Acontosceles* Champion

*Acontosceles* Champion, 1924. Ent. Month. Mag., 60 : 27.

Type-species : *Acontosceles hydroporoides* Champion, 1924.

*Acontosceles yorioi* M. Satô

*Acontosceles yorioi* M. Satô, 1966. Trans. Shikoku Ent. Soc., 9 (2) : 60 (Iriomote-jima I. : Kampirei-no-taki).

*Acontosceles* sp. M. Satô et Y. Miyatake, 1964. Rep. Comm. For. Sci. Res. Kyushu Univ., 2 : 143 (Iriomote-jima I.).

Distribution : Iriomote-jima I. of the Yayeyama Islands.

References concerning the family Limnichidae of  
the Ryukyu Archipelago

- Satô, M. 1965. The Limnichid-beetles of Formosa, Spec. Bull. Lep. Soc. Japan, 1 : 121-125.
- 1966. The Limnichid-beetles of Japan, Trans. Shikoku Ent. Soc., 9 (2) : 55-62.
- and Y. Miyatake, 1964. Aquatic beetles of Iriomote-jima collected by the member of the Second Expedition of Kyushu University to the Yaeyama Group, the Ryukyus, Rep Comm For. Sci. Rep. Kyushu Univ. 2 : 135-143.

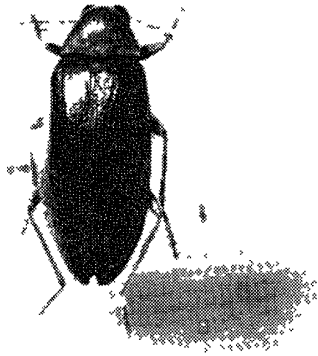
Family Ptilodactylidae

Key to the genera of the family Ptilodactylidae  
in the Ryukyus

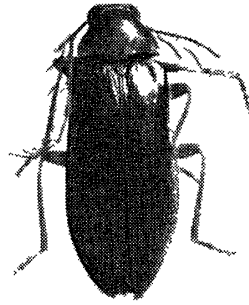
- 1 (6) Body elongate, its length longer than two times the breadth. Base of elytra not crenulate. Terminal joint of maxillary palpi expanded apically, with rounded apex.
- 2 (5) Lateral keels of pronotum incomplete. Tarsi lobate. Antennae pectinate in male.
- 3 (4) Lateral keels of pronotum attaining from base to basal third. Subcoxa of front legs visible. First to fourth joints of tarsi lobate ... *Epilichas* White
- 4 (3) Lateral keels of pronotum attaining from base to apical third. Subcoxae of front legs not visible. First to third joints of tarsi lobate and fourth simple. .... *Ptilodactyla* Illiger
- 5 (2) Lateral keels of pronotum complete. Tarsi simple. Antennae strongly serrate in male ..... *Drupeus* Lewis
- 6 (1) Body oval, its length shorter than two times the breadth. Base of elytra crenulate. Terminal joint of maxillary palpi bifid at the apex.
- 7 (8) Elytra provided with punctate-striae ..... *Macroeubria* Pic
- 8 (7) Elytra without punctate-striae.
- 9 (10) Elytra bearing minute granules arranged in a reticulation. First joint of front tarsi shorter than second and third taken together. Median lobe of male genitalia decorated with appendages, basal piece somewhat small ... *Spineubria* Nakane
- 10 (9) Elytra shagreened. First joint of front tarsi longer than second and third taken together. Median lobe of male genitalia consist of two sclerites, basal piece somewhat large ..... *Urumaeubria* M. Satô

Genus *Epilichas* White

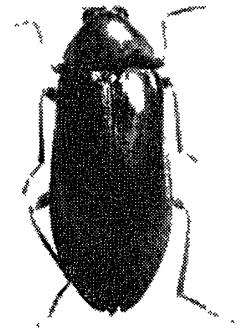
- Paralichas* (*Epilichas*) White, 1859. Ann. Mag. Nat. Hist. (3) 3 : 290
- Type-species : *Paralichas* (*Epilichas*) *candezei* White, 1859.



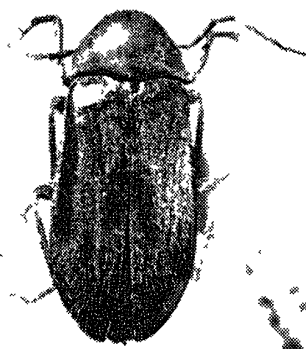
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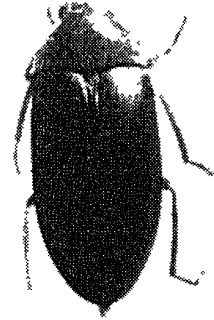
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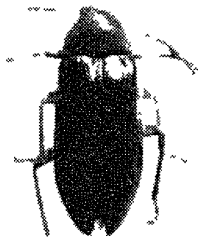
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- Fig. 36. *Epilichas yakushimensis* Nakane ♂  
 Fig. 37. *Epilichas yakushimensis oshimanus* Nakane ♂  
 Fig. 38. *Epilichas yakushimensis oshimanus* Nakane ♀  
 Fig. 39. *Epilichas yakushimensis iriomotensis* M Satō ♀  
 Fig. 40. *Epilichas flabellatus amamianus* Nakane ♂  
 Fig. 41. *Epilichas flabellatus amamianus*, f. *muneaka* Nakane ♀  
 Fig. 42. *Epilichas flabellatus okinawanus* M Satō ♂  
 Fig. 43. *Epilichas flabellatus tamanu* M. Satō ♂  
 Fig. 44. *Drupeus vittipennis* Lewis ♂ (Yaku-shima I.)

Key to the species and the subspecies of the genus

*Epilichas* in the Ryukyus

- 1 (6) Body large size and length more than 10 mm. Apex of median lobe of male genitalia attaining to nearly same level as the apex of paramera ..... *E yakushimensis* Nakane
- 2 (5) Dorsal surface unicolour. Body length less than 13 mm.
- 3 (4) Dorsal surface chestnut to reddish-brown. Punctate striae on elytra distinct. Antennal appendages of male short. Breadth of each eye as broad as the distance between eyes in male ..... *E yakushimensis yakushimensis* Nakane
- 4 (3) Dorsal surface dark brown. Punctate striae on elytra indistinct. Antennal appendages of male long. Breadth of each eye a little broader than the distance between eyes in male ..... *E. yakushimensis oshimanus* Nakane
- 5 (2) Head and pronotum dark reddish-brown. Elytra blackish-brown, punctate striae feeble. Body length more than 14 mm ..... *E yakushimensis iriomotensis* M. Satô
- 6 (1) Body medium size and length less than 10 mm. Apex of median lobe of male genitalia over the apical level of paramera ..... *E. flabellatus* Kiesenwetter
- 7 (12) Dorsal surface unicolour sometimes bicolour. Punctate striae on elytra indistinct. Breadth of each eye narrower than the distance between eyes in male. Body length less than 9 mm.
- 8 (11) Pubescence on elytra yellowish. Breadth of each eye about 1.8 times as broad as the distance between eyes in male.
- 9 (10) Pronotum blackish-brown ..... *E. flabellatus amamianus* Nakane
- 10 (9) Pronotum reddish-testaceous ..... *E flabellatus amamianus*, var. *muneaka* Nakane
- 11 (8) Pubescence on elytra brownish. Breadth of each eye about 1.2 times as broad as the distance between eyes in male. .... *E. flabellatus okinawensis* M. Satô
- 12 (7) Pronotum reddish-brown. Elytra dark reddish-brown, punctate striae distinct. Breadth of each eye as broad as the distance between eyes in male. Body length more than 9 mm ..... *E flabellatus tamanu* M. Satô

*Epilichas yakushimensis* Nakane

*Epilichas flabellatus yakushimensis* Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 35 (Yaku-shima I. : Hananoego) ; Nakane, 1956. Shin Konchû, 9 (2) : 53 (Yaku-shima I.) ; Okadome, 1957. Sci. Rep. Fac. Agri. Meijo Univ. 1 : 43 (Kuchino-erabu-shima I.).

*Epilichas yakushimensis* : Nakane, 1963. in Icon. Ins. Jap. Color. natur. ed. 2 (Col.) : 141, pl. 71, f. 2a (Yaku-shima I.).



*Epilichas candezii*, subsp. ? : Nakane, 1950. Kontyû, 18 (1) : 6 (Yaku-shima I.) (in part).

Male genitalia : basal piece subquadrate, about 1.4 times as long as the length of median lobe and a little shorter than the length of paramera ; median lobe somewhat stout, narrowed anteriorly ; paramera large, excavate on inner side, the length shorter than the median lobe, but the apex nearly as same as apical level of the latter.

Specimens examined : 1 ♂, Miyano-ura, Yaku-shima I., May 26, 1960, H. Yokoyama leg. ; 4 ♂ ♂, Yaku-shima I., May 11, 1954, T. Okadome leg.

Distribution : Yaku-shima I. and Kuchino-erabu-shima I. of the Ôsumi Islands.

*Epilichas yakushimensis oshimanus* Nakane

*Epilichas flabellatus yakushimensis*, f. *oshimanus* Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 35 (Amami-Ôshima I.) ; Nakane, 1956. Shin Konchû, 9 (2) : 53 (Amami-Ôshima I.).

*Epilichas yakushimensis oshimanus* : Nakane, 1963. in Icon. Ins. Jap. Color. natur. ed. 2 (Col.) : 141, pl. 71, f. 2b (Amami-Ôshima I.)

*Epilichas candezu*, subsp. ? : Nakane, 1950. Kontyû, 18 (1) : 6 (Amami-Ôshima I.) (in part).

Male genitalia : almost similar to the nominate subspecies, but the apex of paramera more angulate.

Specimens examined : 1 ♀, Hatsuno, Amami-Ôshima I., May 26, 1960, T. Shibata leg. ; 1 ♂, ditto, April 21, 1964, K. Sako leg. ; 1 ♀, Yuwan, Amami-Ôshima I., April 11, 1954, J. Fukui leg. ; 1 ♂ 2 ♀ ♀, Naze, Amami-Ôshima I., April 16, 1961, K. Yamada leg.

Distribution : Amami-Ôshima I. of the Amami Islands.

*Epilichas yakushimensis iriomotensis* M. Satô, subsp. nov.

Female : head, pronotum, scutellum, legs, antennae and ventral surface dark reddish-brown, elytra blackish-brown. Body wholly clothed with yellowish-brown, close and suberect hairs. Antennae serrate, relative length of each joint 10 : 9 : 9 : 9 : 10 : 9 : 8 : 8 : 8 : 2 : 6. The distance between eyes about 1.8 times as broad as the breadth of each eye. Pronotum about 1.5 times as broad as long. Punctate striae on elytra feeble

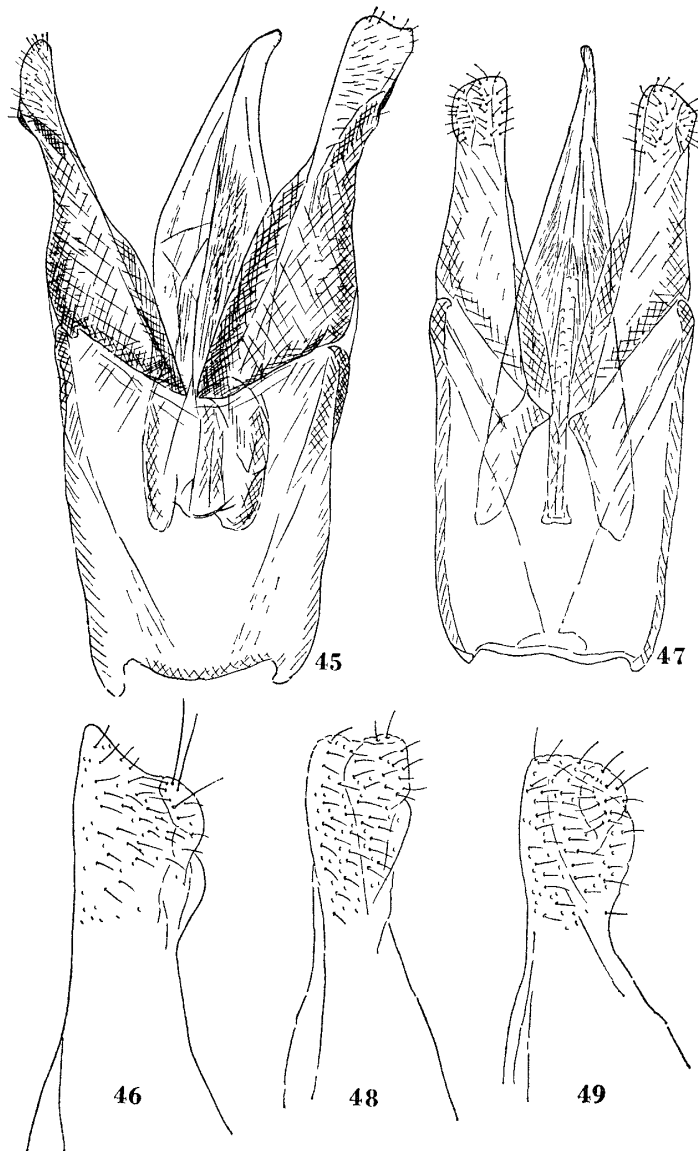
Male unknown.

Length : 14.31 mm, breadth : 6.46 mm.

Holotype : 1 ♀, Haterumo-no-mori, Iriomote-jima I., July 2, 1964, H. Konishi leg. (in coll. of T. Shibata).

Distribution : Iriomote-jima I. of the Yayeyama Islands.

The subspecies can be separable from the nominate subspecies in the elytral colour and from subsp. *oshimanus* Nakane in the pronotal colour and larger body.



Figs 45-49 Male genitalia

Fig 45 *Epilichas yakushimensis* Nakane

Fig. 46 *Epilichas yakushimensis oshimamus* Nakane

Fig 47 *Epilichas flabellatus tamaii* M. Satô

Fig 48 *Epilichas flabellatus amamianus* Nakane

Fig 49 *Epilichas flabellatus okinawanus* M. Satô

*Epilichas flabellatus amamianus* Nakane

*Epilichas flabellatus amamianus* Nakane, 1963. *Fragm. Coleopt.* 10 : 42 (Amami-Ôshima I. : Mt. Yuwan); Nakane, 1963. in *Icon. Ins. Jap. Color. natur.* ed. 2 (Col.) : 141, pl. 71, f. 1d (Amami-Ôshima I.).

Male genitalia : almost similar to subsp. *tamaii* M. Satô, but the paramera more or less slender and distinctly constricted at preapex.

Specimen examined : 1♂, Hatsuno, Amami-Ôshima I., April 23, 1964, K. Sako leg.

var. *muneaka* Nakane

*Epilichas flabellatus amamianus*, var. *muneaka* Nakane, 1963. *Fragm. Coleopt.* 10 : 42 (Amami-Ôshima I. : Sumiyo) ; Nakane, 1963. in *Icon. Ins. Jap. Color. natur. ed.* 2 (Col.) : 141, pl. 71, f. 1e (Amami-Ôshima I.).

Specimens examined : 1 ♀, Hatsuno, Amami-Ôshima I., April 21, 1964, K. Sako leg. ; 1 ♀, ditto, April 2, 1966, H. Nomura, leg. ; 1 ♀, ditto, March 31, 1966, T. Ito leg.

Distribution : Amami-Ôshima I. of the Amami Islands.

*Epilichas flabellatus okinawanus* M. Satô, subsp. nov

Male : body blackish-brown, posterior margin of pronotum narrowly, scutellum, basal two joints of antennae, ventral surface and legs reddish-brown. Dorsal surface clothed with brownish hairs. Antennae pectinate, approximate ratio of the segments 4 : 2 : 6.5+4 : 7+5.5 : 8+6 : 7+7 : 7+7 : 7.5+7 : 7+6 : 6.5+4.5 : 7 (+ numbers mean the length of appendages). Distance between eyes slightly broader than the breadth of each eye. Pronotum about 1.5 times as broad as long. Punctate-striae on the elytra slightly finer than those of subsp. *amamianus* Nakane. Male genitalia : paramera stouter than that of *amamianus*.

Female unknown.

Length : 8.77 mm ; breadth : 3.54 mm.

Holotype : 1 ♂, Yona, Okinawa-hontô I., May 6, 1963, H. Nomura leg. (in coll. of T. Shibata).

The present subspecies can be distinguished from subsp. *amamianus* Nakane by the following points in addition to the previous key : apical joint of antennae and posterior margin of pronotum reddish-brown.

*Epilichas flabellatus tamaii* M. Satô

*Epilichas flabellatus tamaii* M. Satô, 1964. *Bull. Jap. ent. Acad.* 1 (7) : 33 (Iriomote-jima I. : Shirahama).

Male genitalia : basal piece subquadrate, about 1.3 times as long as the length of median lobe, and a little shorter than the length of paramera ; median lobe rather slender, strongly tapering apically ; paramera excavate on inner side, the length shorter than median lobe and the apex not attaining the apical level of the latter.

Distribution : Iriomote-jima I. of the Yayeyama Islands.

Genus *Ptilodactyla* Illiger

*Ptilodactyla* Illiger, 1807. *Mag. Ins.* 6 : 342.

*Hypselothorax* Kirsh, 1866. *Berl. Ent. Zeits.* 10 : 188.

Type-species : *Ptilodactyla nitida* Degeer, 1775.

Key to the species of the genus *Ptilodactyla* in the Ryukyus

- 1 (2) Body black with brownish tinge. Length more than 5.6 mm. Granules on elytra fine and sparse. .... *P. takahashi* M. Satô
- 2 (1) Body dark brown to reddish-brown. Length less than 5.0 mm. Granules on elytra more or less distinct and close.
- 3 (4) Antennal appendages more or less short. Paramera of male genitalia pointed at the apex..... *P. amamioshimana* Nakane
- 4 (3) Antennal appendages rather long. Paramera of male genitalia rounded at the apex ..... *P. ishigakiana* M. Satô

*Ptilodactyla takahashi* M. Satô, sp. nov.

Male : body elongate-oval, shining, closely clothed with pale yellow, long and suberect hairs above and with pale yellow, short and recumbent hairs beneath. Dorsal surface black with brownish tinge, ventral surface and antennae blackish-brown, mouth parts and legs yellowish-brown.

Head closely granulate, the granules sparser anteriorly, the distance between eyes about 1.6 times as broad as the breadth of an eye, antennae incomplete in the present specimen.

Pronotum about 1.5 times as broad as long, closely granulate. Scutellum heart-shaped, finely granulate.

Elytra about 1.8 times as long as broad, subparallel-sided at basal two-thirds, sparsely and minutely granulate, distinctly punctate-striate.

Male genitalia : basal piece about a half length of median lobe ; paramera excavated on inner sides, the apical portion incomplete in the present specimen ; median lobe slender, gently tapering terminally, with sharply pointed apex.

Female : distance between eyes about 2.3 times as broad as the breadth of each eye ; antennae filiform.

Length : 5.6 - 6.0 mm, breadth : 2.4 - 2.7 mm.

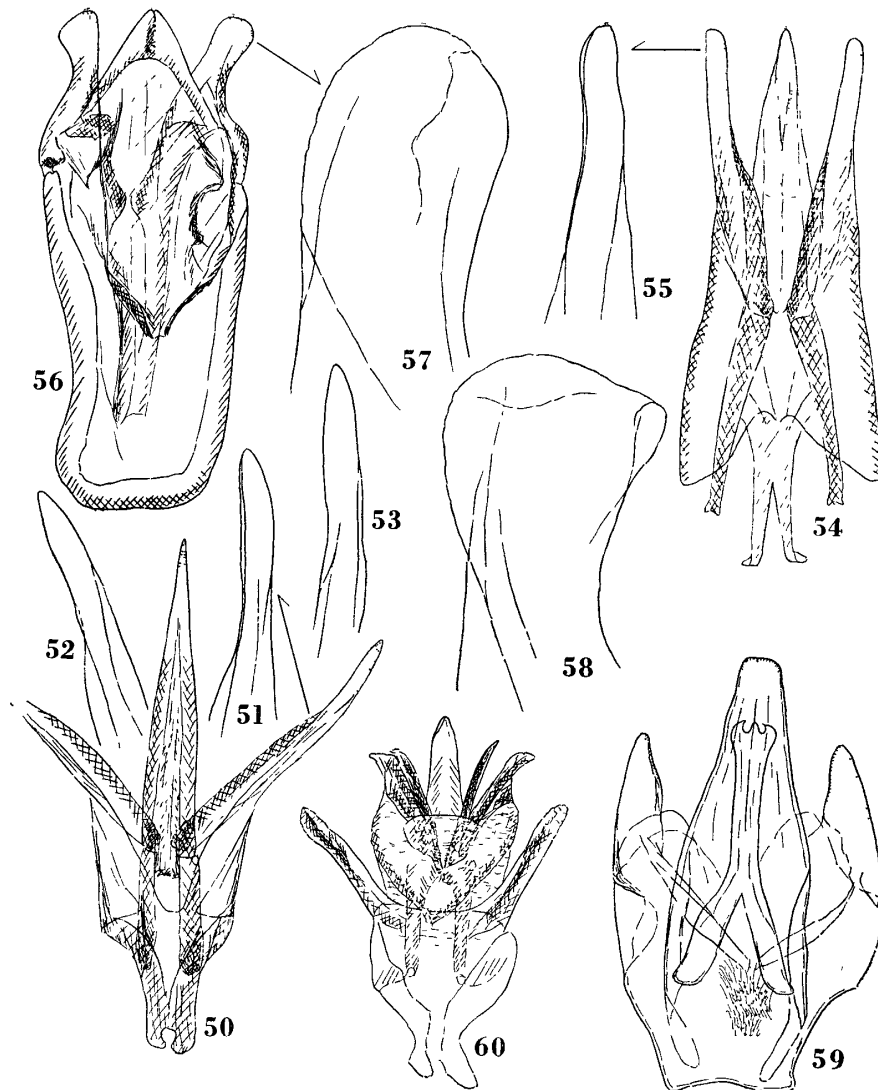
Holotype : 1 ♂, Hatsuno, Amami-Ôshima I., April 15, 1963, N. Ohbayashi leg.

Paratypes : 1 ♀, same data as the holotype ; 1 ♀, Yona, Okinawa-hontô I., April 22, 1962, Y. Arita leg.

Distribution : Amami-Ôshima I. of the Amami Islands, Okinawa-hontô I. of the Okinawa Islands.

The present species is very closely related to *P. macrophthalma* Nakane, but it differs from the latter in the colouration is darker and in the distance between eyes is broader.

The species is named in honour of Dr. A. Takahashi who has given me kind advice.



Figs. 50-60 Male genitalia

- Fig 50 *Ptilodactyla amamioshimana* Nakane (Iriomote-jima I.)  
 Fig 51 Apical portion of paramera, *Ptilodactyla amamioshimana* (Iriomote-jima I.)  
 Fig 52 Apical portion of paramera, *Ptilodactyla amamioshimana* (Okinawa-hontô I.)  
 Fig 53 Apical portion of paramera, *Ptilodactyla amamioshimana* (Yonaguni-jima I.)  
 Fig 54 *Ptilodactyla ishigakiana* M Satô  
 Fig 55 Apical portion of paramera, *Ptilodactyla ishigakiana*  
 Fig 56 *Drupeus vittipennis* Lewis (Yaku-shima I.)  
 Fig 57 Apical portion of paramera, *Drupeus vittipennis* (Yaku-shima I.)  
 Fig 58 Apical portion of paramera, *Drupeus vittipennis* (Honshu · Towada)  
 Fig 59 *Macroebria lewisi* Nakan (Amami-Ôshima I.)  
 Fig 60 *Spineubria reticulata* Nakata

*Ptilodactyla amamioshimana* Nakane

*Ptilodactyla amamioshimana* Nakane, 1963. *Fragm. Coleopt.*, 11 : 43 (Amami-Ôshima : Hatsuno) ; Nakane, 1963. in *Icon. Ins. Jap. Color. natur.* ed. 2 (Col.) : 142, pl. 72, f. 14 (Amami-Ôshima).

Distance between eyes about 1.5 times as broad as the breadth of each eye in the specimen of male from Okinawa-hontô I. and same as from Iriomote-jima I. and Yonaguni-jima I. and about 2.2 to 2.6 times in the specimen of female from Yaku-shima I., about 1.7 to 2.0 from Amami-Ôshima I., about 2.4 to 2.5 from Okinawa-hontô, I. and about 2.2 from Iriomote-jima I. Approximate ratio of each antennal joints of the specimen from Okinawa-hontô I. as follows 9 : 5 : 13 : 17+20 : 18+25 : 19+27 : 19+27 : 19+27 : 20+27 : 20+26 : 22.

Male genitalia : basal piece slightly bifid at apex ; median lobe slender, distinctly narrowed terminally with sharply pointed apex ; paramera slender with pointed apex.

Specimens examined : 2 ♀ ♀, Miyanoura, Yaku-shima I., July 10, 1961, K. Ueda leg. ; 1 ♀, Tabu-gawa, Yaku-shima I., July 11, 1961, K. Ueda leg. ; 2 ♀ ♀, Kosugi-dani, Yaku-shima I., July 13, 1961, K. Ueda leg. ; 4 ♀ ♀, Hatsuno, Amami-Ôshima I., July 8, 11, 28, 1962, N. Ohbayashi leg. ; 1 ♀, June 15, 1962, M. Satô leg., 1 ♀, July 4, 1963, Y. Hama leg. ; 1 ♀, Higashinakama, Amami-Ôshima I., Aug. 1, 1962, N. Ohbayashi leg. ; 1 ♀, Akaogi, Amami-Ôshima I., June 11, 1962, M. Satô leg. ; 1 ♂, 2 ♀ ♀, Mt. Katsuu, Okinawa-hontô I., July 10, 1963, Y. Hama leg. ; 2 ♂ ♂ 1 ♀, Yona-Kunigami, Okinawa-hontô I., July 17, 1965, K. Hatta leg. ; 1 ♂, ditto, Y. Hori leg. ; 2 ♂ ♂, Haterumo-no-mori, Iriomote-jima I., July 2, 1964, H. Konishi leg. ; 1 ♂ 2 ♀ ♀, Ushiku-no-mori, Iriomote-jima I., June 26, 1965, Y. Hori leg. ; 1 ♂, Yonaguni-jima I., June 24, 1964, H. Konishi leg.

Distribution : Yaku-shima I.\* of the Ôsumi Islands : Amami-Ôshima I. of the Amami Islands : Okinawa-hontô I.\* of the Okinawa Islands : Iriomote-jima I.\* Yonaguni-jima I.\* of the Yayeyama Islands.

*Ptilodactyla ishigakiana* M. Satô, sp. nov.

The general characters of the present species well agrees with *P. amami-osimimana* Nakane, but differs slightly from the latter only in having the following features.

Distance between eyes about 1.1 times as broad as the breadth of each eye in male about 1.6 times in female. Approximate ratio of each antennal joints as follows 9 : 5 : 13 : 15+24 : 17+29 : 18+34 : 18+37 : 20+39 : 21+39 : 21+37 : 26 (+ numbers mean the length of appendages)

Male genitalia : basal piece membranous, somewhat expanded apically ; median lobe rather stout, with dully rounded apex ; paramera stout, its apex rounded.

Holotype : 1 ♂, Arakawa, Ishigaki-jima I., June 16, 1965, K. Hatta leg

Paratypes : 2 ♀ ♀, same data as the holotype ; 1 ♀, same locality as the holotype, Y. Hori leg. ; 2 ♂ ♂, Mt. Omoto-dake, Ishigaki-jima I., Sept. 10, 1965, Y. Arita leg. and June 18, 1965, K. Hatta leg., 1 ♂, Mt. Nosoko, July 17,

1963, Y. Hama leg. ; 1 ♂, Ishigaki-jima I., Aug. 2, 1962, Y. Hama leg.

Distribution : Ishigaki-jima I. of the Yayeyama Islands.

Genus *Drupeus* Lewis

*Drupeus* Lewis, 1895. Ann. Mag. Nat. Hist. (6) 16 : 102.

Type-species : *Drupeus laetabilis* Lewis, 1895.

*Drupeus vittipennis* Lewis

*Drupeus vittipennis* Lewis, 1895. Ann. Mag. Nat. Hist. (6) 16 : 103 (Honshu : Kashiwagi) ; Nakane, 1948. Bull. Takarazuka Ins. 45 : 11, figs. 6e, 8c, 9b, 13 (Honshu : Gifu) ; Nakane, 1950. Kontyû 18(1) : 6 ; Nakane, 1956. Shin-Konchû, 9 (3) : 54, fig. 3 (Hokkaido, Honshu, Shikoku, Kyushu) ; Nakane, 1963. in Icon. Ins. Jap. natur. ed. 2 (Col.) : 142, pl. 71, f. 11 (Hokkaido, Honshu, Shikoku, Kyushu).

A unique example taken from Yaku-shima I. slightly differs from the example from Honshu : antennae are distinctly serrate and apex of paramera of male genitalia is rounded.

Male genitalia : basal piece strongly sclerotized and large, the margins well defined ; paramera rather small, constricted at apical third, with the apex rounded; median lobe somewhat large, apical portion subtriangular and the apex slightly notched.

Specimen examined : 1 ♂, Kosugi-dani, Yaku-shima I., May 23, 1963, N. Ohbayashi leg.

Distribution : Hokkaido, Honshu, Kyushu, Shikoku, the mainland of Japan ; Yaku-shima I.\* of the Ôsumi Islands.

Genus *Macroebria* Pic

*Macroebria lewisi* Nakane

*Macroebria lewisi* Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 37 (Honshu : Maya-san, Nara, Aizu-Wakamatsu ; Yaku-shima I.) ; Nakane, 1956. Shin Konchû, 9 (3) : 55 (Honshu, Kyushu, Yaku-shima I.) ; Nakane, 1963. in Icon. Ins. Jap. Color. natur. ed. 2 (Col.) : 143, pl. 72, f. 2 (Honshu, Kyushu, Yaku-shima I.).

*Eubria lewisi* Nakane, 1950 (in litt.). Kontyû, 18 (1) : 6 (Honshu, Kyushu, Yaku-shima I.).

*Macroebria lewisi amamiana* M. Satô, 1964. Bull. Jap. ent. Acad. 1 (7) : 34 (Amami-Ôshima I. : Shin-mura, Hatsuno). (syn nov.)

The differences between *amamiana*, a subspecies established by me, and nominate subspecies are slight. Moreover, a sole specimen taken from Ishigaki-jima I. is identical with the specimens from Honshu. As previous mentioned, two subspecies is considered to be intraspecific variation and I also treat that

they belong to same specific category.

Male genitalia : basal piece rather large, membranous ; paramera small, subtriangular, with rounded apex ; median lobe complex, the small sclerite  $\lambda$ -shaped, its apex trilobate, the large flat sclerite bluntly rounded at tip, its sides reflexed (This description and figure made by the holotype of subsp. *amamiana*).

Specimen examined : 1 ♀, Mt. Omoto-dake, Ishigaki-jima I., July 5, 1965, Y. Hayashi leg.

Distribution : Honshu, Kyushu, the mainland of Japan ; Yaku-shima I. of the Ôsumi Islands ; Amami-Ôshima I. of the Amami Islands ; Ishigaki-jima I.\* of the Yayeyama Islands.

#### Genus *Spineubria* Nakane

*Spineubria* Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 39.

Type-species : *Spineubria reticulata* Nakane, 1952.

#### *Spineubria reticulata* Nakane

*Spineubria reticulata* Nakane, 1950 (in litt.). Kontyû, 18 (1) : 6 (Okinawa-hontô I.)\* ; Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 39 (Amami-Ôshima I. : Naze) ; Nakane, 1956. Shin Konchû, 9 (3) : 55 (Amami-Ôshima I.) ; Nakane, 1963. in Icon Ins. Jap. Color. natur. natur. ed. 2 (Col.) : 143, pl. 72, f. 4 (Amami-Ôshima I.).

The species was originally described by Nakane basing on a single female specimen\*\*. Afterwards, it has not yet been found. Firstly I illustrate and describe the male genitalia as follows.

Male genitalia : basal piece bifurcate at the apex, reflexed ventrally ; paramera slender ; median lobe decorated with appendages, median struts distinct and parallel.

Specimens examined : 1 ♂, Santaro-tôge, Amami-Ôshima I., May 7, 1960, T. Shibata leg. ; 1 ex., Naze, Amami-Ôshima I., May 3, 1961, K. Yamada leg.

Distribution : Amami-Ôshima I. of the Amami Islands

#### Genus *Urumaeubria* M. Satô, nov

Type-species : *Urumaeubria tachikawai* M. Satô, sp. nov.

Body broadly oval, closely pubescent all over. Head somewhat concealed under pronotum ; clypeus and labrum distinctly convex ; eyes large ; antennae

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\* The locality might probably be erroneous.

\*\* Nakane (1952) indicated that a unique type-specimen is male, but in his second report (1956) he treated the type as female



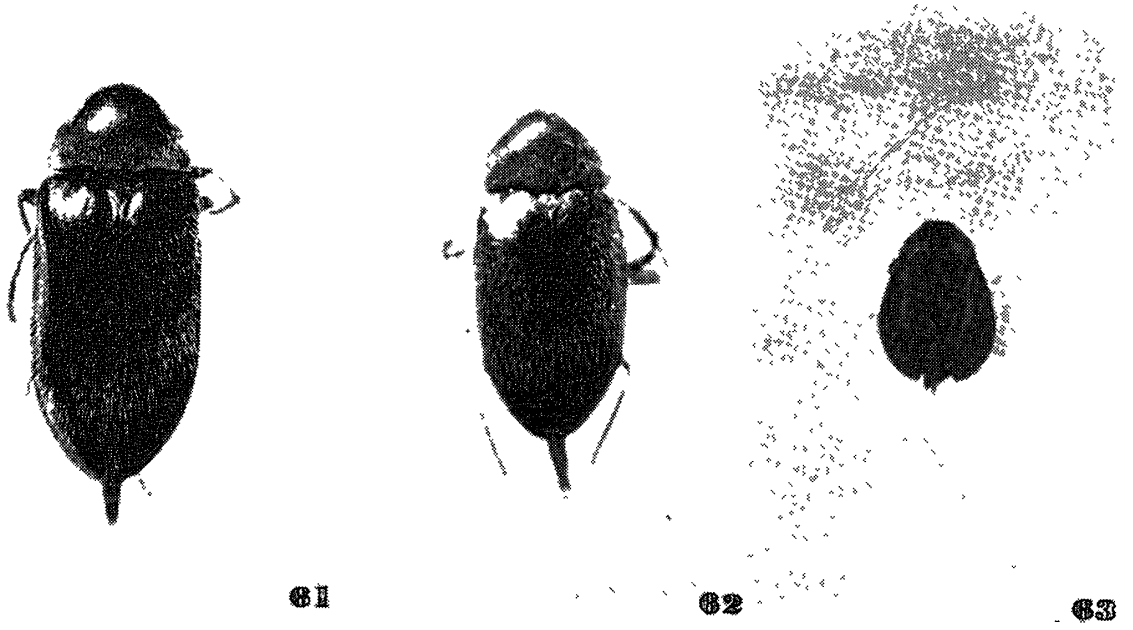


Fig 61 *Ptilodactyla takahashi* M Satō  
 Fig 62 *Ptilodactyla amamoshimana* Nakane  
 Fig 63. *Urumaebria tachikawai* M Satō

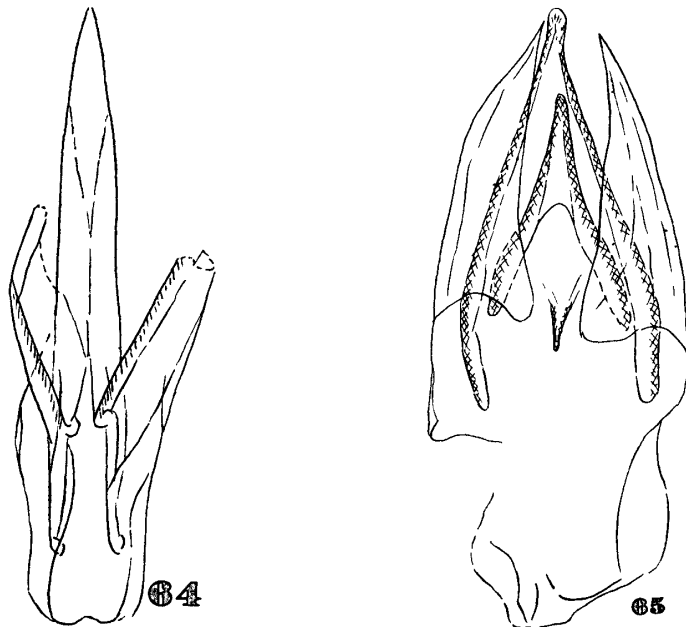


Fig 64 Male genitalia of *Ptilodactyla takahashi* M Satō  
 Fig 65 Male genitalia of *Urumaebria tachikawai* M Satō

serrate ; apical joint of maxillary palpi bifid at the apex. Pronotum transverse, narrowly rounded anteriorly, basal margin finely crenulate. Scutellum subtriangular, relatively large. Elytra shagreened, the base finely crenulate. Legs slender ; first joint of front tarsi longer than second and third taken together ; claws bifurcate.

Male genitalia of trilobate-type ; basal piece membranous ; paramera excavate on inner side, the apex sharply pointed and not attaining the apical level of median lobe ; median lobe complex and provided with a retrojected tooth at the middle, the large sclerite subtriangular, with dully rounded apex, the small sclerite  $\lambda$ -shaped.

The present genus is closely related to the genus *Spineubria* Nakane, but it can be separated from the latter in the different features of male genitalia and front tarsi.

*Urumaebria tachikawai* M. Satô, sp. nov.

Body blackish-brown and closely clothed with fine, short and pale pubescence ; lateral sides of pronotum, prosternum and hypomeron yellowish-orange ; legs brown ; tarsi and mouth parts yellowish.

Head distinctly shagreened ; the distance between eyes a little narrower than the breadth of each eye ; antennae distinctly serrate in male and feebly in female, the approximate ratio of length in male as follows : 7 : 3 : 14 : 13 : 12 : 12 : 12 : 13 : 13 : 13.

Pronotum distinctly convex at the central area, circularly impressed at either sides of the middle just before posterior margin ; disc finely shagreened and indistinctly punctate. Elytra distinctly shagreened and vaguely punctate, Relative length of front tarsi 12 : 5 : 5 : 3 : 9.

Length : ♂ 2.25 mm, ♀ 2.77-2.85 mm ; breadth : ♂ 1.40 mm, ♀ 1.54-1.80 mm.

Holotype : 1 ♂, Mt. Omoto-dake, Ishigaki-jima I., June 18, 1965, K. Hatta leg.

Paratypes : 1 ♀, same data as the holotype ; 1 ♀, Ishigaki-jima I., Aug. 4, 1962, Y. Hama leg (in coll. of T. Shibata).

The specific name is dedicated to Prof. T. Tachikawa, who has given me kind encouragement.

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the Ryukyu Archipelago

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### 摘 要

#### 琉球列島のドロムシ上科, II

(鞘翅目)

佐藤正孝

先の報告(1965)にひきつづいて,ここにダエンマルトゲムシ科の2属2種,チビドロムシ科の4属4種およびヒゲナガハナノミ科の6属9種5亜種を報告した。それらのうち,ヒゲナガハナノミ科の1新属,3新種,2新亜種を記載し,1亜種を原種のシノニムとするとともにダエンマルトゲムシ科の1種の所属を変更した。チビドロムシ科については,日本産の総説(1966)にまとめて報告したので,ここでは単に検索と目録だけにととめた。