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ELATERID-BEETLES FROM TAIWAN IN BISHOP MUSEUM (Coleoptera)¹

By Hitoo Ôhira²

Abstract: The elaterid-beetles from Taiwan in the Bishop Museum are discussed. Described as new are *Brachylacon* (*Aganolacon*) *gressitti*, *Csikia formosana*, *Anchastus taiwanus* and *Glyphonyx formosanus*. *Colaulon* (*Cryptolacon*) *shirakii* is a new combination.

The present paper is a result of study of the elaterid-beetles from Taiwan through the courtesy of Dr J. L. Gressitt of Bishop Museum. As the result of the study of these specimens, I found various new details.

I am deeply indebted to Dr Gressitt and the late Miss Sestuko Nakata of Bishop Museum for their assistance in various ways. The holotype of each species described in this paper is preserved in Bishop Museum.

Subfamily CHALCOLEPIDIINAE Schenkling, 1925

Paracalais podargus (Candèze, 1874)

Alaus podargus Candèze, 1874, Révis. Mon. Élat.: 125 (Luzon). — Van Zwaluwenburg, 1936, *Philip. J. Sci.* 59 (3): 401 (Masbate, Mindanao, Sibuyan). — Kano, 1938, *Annot. Zool. Japon* 17(1): 115, pl. 9, f. 9 (Kôtôsho).

Paracalais podargus: Ôhira, 1970, *Bull. Japan Ent. Acad.* 6(1): 18, f. 1 (Formosa, Lan-hsu I.).

SPECIMEN EXAMINED: Hori, 1 ♀, VII.1954 (obtained from a native collector).

DISTRIBUTION: Formosa, Philippines.

Paracalais elongatus (Miwa, 1929)

Alaus elongatus Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19 (102): 237 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 188 (Formosa).

This species resembles *Paracalais putridus putridus* (Candèze, 1857), but can be distinguished from the latter in having a slender body, transversely truncate elytral apices

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and no protuberances at the median part of anterior margin of the pronotum.

SPECIMEN EXAMINED: Hori, 1 ♂, VII.1954 (obtained from a native collector).

DISTRIBUTION: Formosa.

Lanelater politus (Candèze, 1857)

Agrypnus politus Candèze, 1857, *Mon. Élat.* 1: 43, pl. I, f. 2 (China). — Candèze, 1874, Révis. Mon. Élat.: 12 (Java). — Bates, 1866, *Proc. Zool. Soc. Lond.*: 350 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 178 (Formosa).

Lanelater politus: Ôhira, 1966, *Kontyû* 34(3): 215 (Formosa).

SPECIMENS EXAMINED: Kuraru, 3 ex., V.1934, J. L. Gressitt; same locality, 1 ex., 3.IV.1965, C. M. Yoshimoto. Hori, 1 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa, China, Java.

Subfamily AGRYPNINAE Fleutiaux, 1919

Agrypnus (Agrypnus) formosanus (Bates, 1866)

Lacon formosanus Bates, 1866, *Proc. Zool. Soc. Lond.*: 348 (Formosa). — Candèze, 1874, Révis. Mon. Élat.: 71 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 181 (Formosa).

Agrypnus formosanus: Ôhira, 1966, *Kontyû* 34(3): 216 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ♀, VII.1953 (obtained from a native collector).

DISTRIBUTION: Ryukyus?, Formosa.

Agrypnus (Paralacón) argillaceus shirozui (Ôhira, 1966)

Adelocera (Sabikikorius) argillaceus shirozui Ôhira, 1966, *Kontyû* 34(3): 216, f. 1, 2 (Formosa).

Agrypnus (Paralacón) argillaceus shirozui Ôhira, 1968, *Kontyû* 36(4): 363 (Formosa).

SPECIMENS EXAMINED: Arisan, 23 ex., 8–9.IV.1965, C. M. Yoshimoto & B. D. Perkins.

DISTRIBUTION: Formosa.

Adelocera (Adelocera) setigera (Bates, 1866)

Lacon setiger Bates, 1866, *Proc. Zool. Soc. Lond.* 2: 348 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 182 (Formosa).

Adelocera setigera: Fleutiaux, 1947, *Notes d'Ent. Chinoise* 11(8): 260 (Tonkin).

SPECIMEN EXAMINED: Kuraru, 1 ♂, 14.VII.1934, J. L. Gressitt.

DISTRIBUTION: Ryukyus?, Formosa, Tonkin.

Sagojo kawamurae (Miwa, 1929)

Lacon kawamurae Miwa, 1929, *Trans. Nat. Soc. Formosa* 19(102): 230 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 183 (Formosa).

Sagojo kawamurae: Ôhira, 1968, *Kontyû* 36(4): 364 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ♀, VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa.

Brachyлаcon (Brachyлаcon) tumens (Candèze, 1873) Fig. 1 B.

Lacon tumens Candèze, 1873, *Mém. Soc. Sci. Liège* (2) V: 4 (Japan). — Candèze, 1874, *Révis. Mon. Élat.*: 49 (Japan). — Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19 (102): 232 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 69, 195 (Japan, Formosa).

Length 7 mm, breadth about 2.5 mm. Body almost parallel-sided and strongly convex above; surface blackish brown (antennae and legs reddish brown), clothed with decumbent, fulvous pubescence and intermixed with some small spots of whitish scale-like pubescence on elytral surface.

SPECIMEN EXAMINED: Hori, 1 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Japan, China?, Formosa.

Brachyлаcon (Aganolacon) gressitti Ôhira, new species Fig. 1 D.

♀. Length 3.5 mm, breadth about 1.5 mm. Body oblong-ovate, strongly convex and moderately shining; dorsal surface clothed with recumbent, golden yellow, rather fine, scale-like pubescence; castaneous-brown entirely except head and pronotum more or less darker, antennae (except basal segment) and legs brownish yellow. *Head* small, gently convex between eyes and bearing a shallow, median longitudinal canaliculation in middle; surface deeply, coarsely and somewhat rugosely punctate; antennae short, not reaching posterior angles of pronotum, 2nd segment small and subglobular, 3rd smaller than 2nd and subcylindrical, from 4th to 10th acutely serrate and each segment clearly broader than its length, apical one subovate. Pronotum trapezoid, slightly broader than its length, widest across posterior angles; sides of posterior 1/2 subparallel, thence rounded and gradually tapering towards anterior angles; disc strongly convex at middle, coarsely, deeply and rather evenly punctate, but punctures becoming closer and more rugose towards sides and smaller posteriorly; posterior margin of antescutellar area nodule-like elevated; posterior angles small, right-angled at each apex, each bears a shallow carina above. Scutellum tongue-shaped, flattened, punctate and pubescent. Elytra about 1.5 × as long as basal breadth; sides weakly reflexed and gradually dilated to basal 1/3, thence rounded and gradually tapering towards extremities which are normally rounded; surface strongly convex; striae not defined, but deeply and regularly punctate in the striae as well as the intervals. *Propleura* each have an oblique groove (not clearly defined) for front tarsus. Metasternum has a defined tarsal groove in each side.

♂ unknown.

Holotype ♀ (BISHOP 9485), Hassenzan, 24.VI.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

This new species is somewhat allied to *Brachyлаcon (Aganolacon) shirozui shirozui* Ôhira, 1967 from Formosa, but can be distinguished from the latter in having a smaller body, a trapezoidal pronotum, and is more regularly and evenly punctate on the surface of pronotum and elytra.

Compsolacon formosanus (Miwa, 1929)

Neolacon formosanus Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19 (102): 235, f. 2 (Formosa). *Compsolacon formosanus*: Miwa, 1934, *Fauna Elat. Japan*: 186 (Formosa).

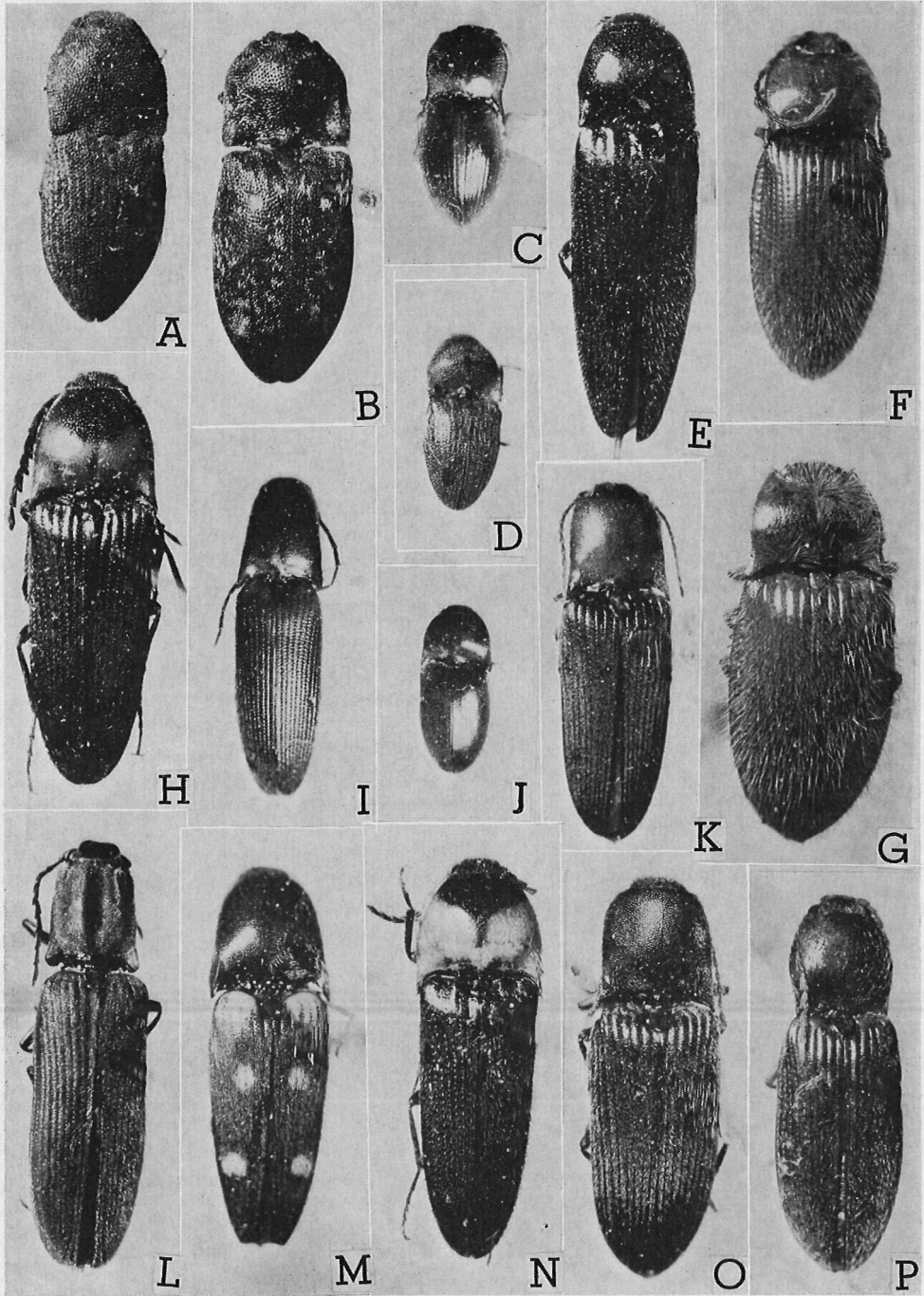


Fig. 1

SPECIMEN EXAMINED: Hori, 1 ♂, 5.V.1935, J. L. Gressitt.

DISTRIBUTION: Formosa.

Colaulon (Cryptolacon) shirakii (Matsumura, 1910), new combination Fig. 1 A, 2.

Lacon shirakii Matsumura, 1910, Schäd. nütz. Insekt. Zucker. Formosas: 39, pl. XXVII, f. 24 ♀ (Formosa). — Matsumura, 1911, *Mém. Soc. Ent. Belg.* 18: 145 (Formosa).

Dr Y. Miwa (1929, *Trans. N. H. Soc. Formosa* 19(102): 229) treated this species as a synonym of *Colaulon (Cryptolacon) musculus* (Candèze, 1857). However, *C. musculus*, determined from Formosa by Miwa (1929), should be considered a misidentification of *C. shirakii*.

SPECIMENS EXAMINED: Musha, 3 ex., XI-XII.1963, T. C. Maa.

DISTRIBUTION: Formosa.

Subfamily CONODERINAE

Fleutiaux, 1919

Aeoloderma brachmana (Candèze, 1859)

Aeolus brachmana Candèze, 1859, *Mon. Élat.* 2: 283, 345 (Hindustan, Ceylon).

Aeoloderma brachmana: Fleutiaux, 1929, *Ency. Ent., Col.*: 34 (China, Bengal, Burma, Hindustan, Ceylon, Java, Sumatra, Borneo, Celebes, Philippines). — Miwa, 1934, *Fauna Elat. Japan*: 192 (Formosa).

SPECIMENS EXAMINED: Taipei, 7 ex., 30.V.1954, K. S. Lin. Kwantzing, 1 ex., 6-7.IV.1965, C. M. Yoshimoto.

DISTRIBUTION: Japan, Ryukyus, Formosa, South Asia.



Fig. 2. Apical portion of aedeagus and some segments of ♂ antenna of *Colaulon (Cryptolacon) shirakii* (Matsumura, 1910).

Fig. 1. A: *Colaulon (Cryptolacon) shirakii* (Matsumura, 1910); body length 7 mm. B: *Brachylacon (Brachylacon) tumens* (Candèze, 1873); 7 mm. C: *Csikiaformosana*, n. sp.; 4 mm (paratype). D: *Brachylacon (Aganolacon) gressitti*, n. sp.; 3.5 mm (holotype). E: *Ampedus (Ampedus) cambodiensis* (Fleutiaux, 1918); 11 mm. F: *Csikia dimatoides* Szombáthy, 1910; 8 mm. G: *Csikia taiwana* Miwa, 1930; 10 mm. H: *Pseudelater habunensis* Miwa, 1934, 11 mm. I: *Procrærus (Procrærus) sonami* (Miwa, 1929); 6 mm. J: *Yukoana formosana* Ôhira, 1966; 3 mm. K: *Glyphonyx rubricollis rubricollis* Miwa, 1928; 8 mm. L: *Parathous sanguineus* Fleutiaux, 1918; 11 mm. M: *Gamepenthès montivagus* (Miwa, 1929); 8 mm. N: *Ampedus (Ampedus) flavobasalis* (Schwarz, 1902); 10 mm. O: *Glyphonyx formosanus*, n. sp.; 8 mm. (holotype). P: *Cardiotarsus rarus* Miwa, 1927; 8 mm.

Subfamily NEGASTRIINAE Nakane et Kishii, 1956

Yukoana formosana Ôhira, 1966 Fig. 1 J.

Yukoana formosana Ôhira, 1966, *Kontyû* 34(3): 217 (Formosa).

SPECIMENS EXAMINED: Kuraru, 2 ex., 4.V.1934, J. L. Gressitt. Bukai, 1 ex., 15.VI.1934, J. L. Gressitt. Hassenzan, 24.VI.1934, J. L. Gressitt. Karenko, 2 ex., 15.VII.1934, J. L. Gressitt. Sozan, 4 ex., 4.VIII.1963, J. L. Gressitt & T. C. Maa.

DISTRIBUTION: Formosa.

Quasimus (Quasimus) miwai Ôhira, 1966

Quasimus (Quasimus) miwai Ôhira, 1966, *Kontyû* 34(3): 217 (Formosa).

SPECIMENS EXAMINED: Musha, 2 ex., 24.VIII.1948, J. L. Gressitt. Sozan, 7 ex., 4-5.VIII.1963, J. L. Gressitt & T. C. Maa.

DISTRIBUTION: Formosa.

Quasimus (Quasimus) reclinatus Ôhira, 1966

Quasimus (Quasimus) reclinatus Ôhira, 1966, *Kontyû* 34(3): 217 (Formosa). — Ôhira, 1968, *Kontyû* 36 (4): 364 (Formosa).

SPECIMENS EXAMINED: Bukai, 1 ex., 15.VI.1934, J. L. Gressitt. Sunmoon Lake, 1 ex., V.1958, N. L. H. Krauss. Sozan, 3 ex., 4-5.VIII.1963, J. L. Gressitt & T. C. Maa.

DISTRIBUTION: Formosa.

Quasimus (Miquasus) formosanus Ôhira, 1968

Quasimus (Miquasus) formosanus Ôhira, 1968, *Kontyû* 36(4): 364 (Formosa).

SPECIMENS EXAMINED: Kuraru, 2 ex., 4.V.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

Subfamily OXYNOPTERINAE Schenkling, 1925

Pectocera fortunei amamiinsulana Nakane, 1957

Pectocera fortunei amami-insulana Nakane, 1957, *Sci. Rep. Saikyo Univ.* (Nat. Sci. & Liv. Sci.) 2(4): 44 (Ryukyus).

Pectocera fortunei amamiinsulana: Ôhira, 1957, *Ent. Rev. Japan* 19(2): 45 (Ryukyus).

SPECIMENS EXAMINED: Hori, 1 ♂, 6.VI.1934, J. L. Gressitt. Taipei, 1 ♂, 3.VI.1958, S. Kirner. Arisan, 1 ♂, 12-16.VI.1965, T. C. Maa & K. S. Lin.

DISTRIBUTION: Ryukyus, Formosa.

Subfamily ATHOINAE C. Schaufuss, 1911

Parathous sanguineus Fleutiaux, 1918 Fig. 1 L.

Parathous sanguineus Fleutiaux, 1918, *Ann. Soc. Ent. France* **87**: 242 (Tonkin, Cambodja). — Miwa, 1934, *Fauna Elat. Japan*: 222 (Tonkin, Cambodja, Formosa).

Athous sulcicollis Miwa, 1928, *Ins. Mats.* **2** (3): 136, pl. V, f. 7 (Formosa).

SPECIMENS EXAMINED: Arisan, 5 ♂♂, 12-16.VI.1965, T. Maa & K. S. Lin.

DISTRIBUTION: Tonkin, Cambodja, Formosa.

Subfamily CTENICERINAE Fleutiaux, 1936

Corymbitodes fuscipes (Miwa, 1931)

Corymbites gratus var. *fuscipes* Miwa, 1932, *Trans. Nat. Hist. Soc. Formosa* **21**(113): 72 (Formosa).

Corymbites (*Metactenicerus*) *fuscipes*: Miwa, 1934, *Fauna Elat. Japan*: 227, pl. IX, f. 18 (Formosa).

Corymbitodes fuscipes: Ôhira, 1966, *Kontyû* **34**(3): 220 (Formosa).

SPECIMENS EXAMINED: Arisan, 1 ex., 25.V.1934, J. L. Gressitt; same locality, 9 ex., C. M. Yoshimoto & B. D. Perkins.

DISTRIBUTION: Formosa

Corymbitodes speciosus (Miwa, 1928)

Corymbites speciosus Miwa, 1928, *Ins. Mats.* **3**(2): 144, pl. V, f. 24 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 227 (Formosa).

Corymbitodes speciosus: Ôhira, 1966, *Kontyû* **34**(3): 220 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ♀, VII.1955 (obtained from a native collector).

DISTRIBUTION: Formosa.

Subfamily SENDONIINAE Schenkling, 1927

Csikia dimatoides Szombáthy, 1910 Fig. 1 F.

Csikia dimatoides Szombáthy, 1910, *Ann. Mus. Nat. Hung.* **8**: 360, f. 2,3 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 228 (Formosa). — Ôhira, 1966, *Kontyû* **34**(3): 220, f. 19 (Formosa).

SPECIMENS EXAMINED: Hori, 4 ex., VII.1953 (obtained from a native collector).

DISTRIBUTION: Formosa.

Csikia taiwana Miwa, 1930 Fig. 1 G.

Csikia taiwana Miwa, 1930, *Wien. Ent. Zeit.* **47** (2): 93 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 228, pl. IX, f. 23 (Formosa).

SPECIMENS EXAMINED: Hassenzan, 2 ex., 23.VI.1934, J. L. Gressitt. Bukai, 1 ex., 15.VI.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

Csikia formosana Ôhira, new species

Fig. 1 C, 3.

♂. Length 4 mm, breadth about 1.7 mm. Body oblong-ovate, convex above and shining; surface pale yellow-brown entirely except head and disc of pronotum, scutellum, median part of elytra, most parts of ventral surface of body and antennae more or less darker and dark yellow-brown; clothed with fine, irregular-sized, fulvous pubescence all over. *Head* small, a little convex between eyes, weakly impressed on subvertical portion between antennae; surface finely and sparsely punctate; clypeal margin only well ridged over antennal insertions, obliterated broadly at middle; antennae slender, extending beyond posterior angles of pronotum by apical 2 segments at least, 2nd segment subcylindrical and a little shorter than 3rd, from 4th to 10th very feebly serrate. Pronotum subquadrate, almost as long as its breadth; sides slightly sinuate before posterior angles, rounded at middle, thence weakly tapering towards anterior angles which are clearly depressed and expanded; disc dome-like, finely and sparsely punctate; posterior angles elongate, acutely projected backwards and divergent; each of them bears a fine carina above, extending anteriorly along lateral margin. Scutellum ovate, flattened, punctulate and pubescent. Elytra subovate; sides clearly expanded and widest across basal 1/3, thence weakly rounded and gradually tapering towards extremities which are normally rounded; striae defined; the intervals weakly elevated, finely punctate and weakly rugose. *Prosternal lobe* large and semicircular; prosternal sutures double; basal plates strongly

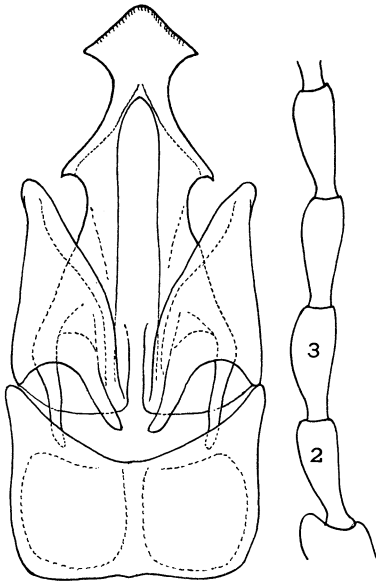


Fig. 3. Aedeagus and some basal segments of ♂ antenna of *Csikia formosana*, n. sp.

narrowed outwards. Legs slender, with 3rd and 4th tarsal segments clearly lobed beneath; claws simple.

♀. Very similar to ♂, but the body more robust and the antennae shorter. Length 4 mm.

Holotype ♂ (BISHOP 9486), Bukai, 15.VI.1934, J. L. Gressitt; paratypes: 2 ♂♂, 1 ♀, same locality, 5.VI.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

This new species resembles somewhat *Csikia dimatoides* Szombáthy, 1910 from Formosa, but can be distinguished from the latter by the smaller body, the elongate and strongly projected posterior angles of pronotum.

Subfamily ELATERINAE Fleutiaux, 1936

Shirozulus formosanus Ôhira, 1966

Shirozulus formosanus Ôhira, 1966, *Kontyû* 34 (3): 271 (Formosa).

SPECIMENS EXAMINED: Taiheizan, 4 ex., 7.V.1932, J. L. Gressitt.

DISTRIBUTION: Formosa.

Neotrichophorus shirozui Ôhira, 1966

Neotrichophorus shirozui Ôhira, 1966, *Kontyû* 34(3): 272 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ♂, 1953 (obtained from a native collector).

DISTRIBUTION: Formosa.

Neotrichophorus rubuginosus Ôhira, 1966

Neotrichophorus rubuginosus Ôhira, 1966, *Kontyû* 34(3): 272 (Formosa). — Ôhira, 1967, *Bull. Japan Ent. Acad.* 3 (5): 30 (Ryukyus).

SPECIMEN EXAMINED: Hori, 1 ♀, VI.1954 (obtained from a native collector).

DISTRIBUTION: Ryukyus, Formosa.

Subfamily MELANOTINAE Jacobson, 1913

Melanotus (Spheniscosomus) frequens (Miwa, 1930)

Spheniscosomus frequens Miwa, 1930, *Trans. Nat. Hist. Soc. Formosa* 20(107): 61 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 218 (Formosa).

Melanotus (Spheniscosomus) frequens: Ôhira, 1966, *Kontyû* 34 (4): 331 (Formosa).

SPECIMENS EXAMINED: Taiheizan, 1 ♂, 1 ♀, 8.V.1932, J. L. Gressitt. Fenkihu, 1 ♂, 10-12. IV.1965, C. M. Yoshimoto & B. D. Perkins. Arisan, 1 ♂, 12-16.V.1965, T. C. Maa & K. S. Lin.

DISTRIBUTION: Formosa.

Melanotus (Spheniscosomus) melanotoides (Miwa, 1930)

Spheniscosomus melanotoides Miwa, 1930, *Trans. Nat. Hist. Soc. Formosa* 20 (107): 61 (Formosa). *Melanotus (Spheniscosomus) melanotoides*: Ôhira, 1966, *Kontyû* 34(4): 331 (Formosa).

SPECIMENS EXAMINED: Karenkô, 1 ex., 15.VII.1934, J. L. Gressitt. Fenkihu, 2 ex., 10-12. IV.1965, C. M. Yoshimoto.

DISTRIBUTION: Formosa.

Neodiploconus (Ploconides) castaneus Miwa, 1930

Neodiploconus castaneus Miwa, 1930, *Wien. Ent. Zeit.* 47(2): 29 (Formosa).

Neodiploconus (Ploconides) castaneus: Ôhira, 1968, *Kontyû* 36(4): 366 (Formosa).

SPECIMENS EXAMINED: Rokki, 3 ex., 17.V.1934, J. L. Gressitt. Hori, 2 ex., VII.1953 (obtained from a native collector).

DISTRIBUTION: Formosa.

Subfamily PHYSORHININAE Fleutiaux, 1919

Anchastus taiwanus Ôhira, new species Fig. 4.

♂. Length 9 mm, breadth about 2.7 mm. Body robust, moderately elongate, subparallel-

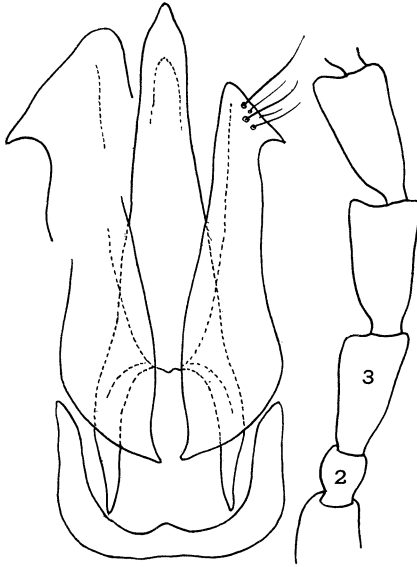


Fig. 4. Aedeagus and some basal segments of ♂ antenna of *Anchastus taiwanus*, n. sp.

well defined, punctate-striated; intervals weakly elevated, granulated and more or less transversely rugose.

♀ unknown.

Holotype ♂ (BISHOP 9487), Sakahen near Karenkô, 15.VII.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

This new species is somewhat allied to *Anchastus castaneus* Miwa, 1934 from the Ryukyus (Amami-Ôshima Is), but can be distinguished from the latter by the sparser and finer punctures on the disc of pronotum and elytra and by the shorter antennae.

Subfamily AMPEDINAE Fleutiaux, 1928

Ampedus (*Ampedus*) *formosensis* (Miwa, 1929)

Elater formosensis Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19 (105): 487 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 196 (Formosa).

Ampedus (*Ampedus*) *formosensis*: Ôhira, 1966, *Kontyû* 34 (3): 270 (Formosa).

SPECIMENS EXAMINED: Taiheizan, 2 ex., 7.V.1932, J. L. Gressitt. Hori, 1 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa.

Ampedus (*Ampedus*) *tattakensis* Ôhira, 1966

Ampedus (*Ampedus*) *tattakensis* Ôhira, 1966, *Kontyû* 34 (3): 270 (Formosa).

sided and convex above; surface chestnut-brown entirely except head and pronotum somewhat darker, moderately shiny and clothed with fulvous pubescence all over. *Head* small, gently convex between eyes; surface densely and somewhat coarsely punctate, each puncture forming umbilical; clypeal margin entirely, well ridged, rounded and weakly impressed at middle; antennae slender, extending posterior angles of pronotum by apical 2 segments at least, 2nd segment small and bulbous, 3rd almost as long as 4th, from 3rd to 10th distinctly serrate. Pronotum trapezoid, a little broader than its length, widest at posterior angles across; sides subparallel at posterior 1/2, thence rounded and gradually tapering towards anterior angles; disc dome-like, sparsely and evenly punctate, but punctures becoming coarser and denser towards sides, each puncture forming umbilical; posterior angles acutely projected behind, not divergent, each of them bears a double carinae above, with the outer carina clearly longer than inner carina. Scutellum narrow and tongue-shaped, flattened, punctulate and pubescent. Elytra about 2.5 × as long as its basal breadth, sides almost parallel at basal 1/2, thence weakly rounded and gradually tapering towards extremities; striae

The general characters of this species resemble closely those of *Ampedus* (*Ampedus*) *formosensis* (Miwa, 1929), but can be distinguished from the latter by the more robust body, the infuscate antennae and legs, and the weak angulation at the middle of clypeal margin.

SPECIMENS EXAMINED: Taiheizan, 3 ex., 7.V.1932, J. L. Gressitt.

DISTRIBUTION: Formosa.

***Ampedus* (*Ampedus*) *flavobasalis* (Schwarz, 1902) Fig. 1 N.**

Elatер flavobasalis Schwarz, 1902, *Deutsche Ent. Zeitschr.* 324 (Tonkin).

Ampedus flavobasalis: Fleutiaux, 1947, *Notes d'Ent. Chinoise* 11 (8): 382 (Tonkin).

Ampedus (*Ampedus*) *flavobasalis*: Ôhira, 1966, *Kontyû* 34 (3): 270 (Formosa).

SPECIMENS EXAMINED: Hori, 3 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa, Tonkin.

***Pseudelater habunensis* Miwa, 1934 Fig. 1 H.**

Elatер (Pseudelater) habunensis Miwa, 1934, *Fauna Elat. Japan*: 197, pl. IX, f. 13 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa.

***Ampedus* (*Ampedus*) *cambodiensis* (Fleutiaux, 1918) Fig. 1 E.**

Elatер cambodiensis Fleutiaux, 1918, *Ann. Soc. Ent. France*: 214 (Cambodge). — Miwa, 1934, *Fauna Elat. Japan*: 196 (Formosa).

Ampedus cambodiensis: Fleutiaux, 1947, *Notes d'Ent. Chinoise* 11 (8): 380 (Cambodge).

Ampedus (*Ampedus*) *cambodiensis*: Ôhira, 1966, *Kontyû* 34(3): 269 (Formosa).

SPECIMENS EXAMINED: Arisan, 1 ♀, 25.V.1934, J. L. Gressitt; 1 ♀, same locality, 12-16. VI.1965, T. C. Maa & K. S. Lin.

DISTRIBUTION: Formosa, Cambodge.

***Gamepenthес montivagus* (Miwa, 1929) Fig. 1 M.**

Melanoxanthus montivagus Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19(105): 491 (Formosa).

— Miwa, 1934, *Fauna Elat. Japan*: 203, pl. IX, f. 17 (Formosa).

Gamepenthес montivagus: Ôhira, 1970, *Ent. Rev. Japan* 22(2): 88.

SPECIMEN EXAMINED: Bukai, 1 ♀, 15.VI.1934, J. L. Gressitt.

DISTRIBUTION: Formosa.

***Prokraerus* (*Prokraerus*) *sonami* (Miwa, 1929) Fig. 1 I.**

Megapenthес sonami Miwa, 1929, *Trans. Nat. Hist. Soc. Formosa* 19(105): 494 (Formosa). — Miwa, 1934, *Fauna Elat. Japan*: 201 (Formosa).

Prokraerus sonami: Ôhira, 1966, *Kontyû* 34(3): 267 (Formosa).

SPECIMEN EXAMINED: Hori, 1 ♀, VII.1953 (obtained from a native collector).

DISTRIBUTION: Formosa.

Subfamily AGRIOTINAE Fleutiaux, 1939

Ectinus sonanis (Miwa, 1928)

Agriotes sonanis Miwa, 1928, *Ins. Mats.* 3(1): 45, pl. I, f. 10 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 233 (Formosa).

Ectinus sonanis: Ôhira, 1966, *Kontyû* 34(4): 332 (Formosa).

SPECIMEN EXAMINED: Taiheizan, 1 ♀, 7.V.1932, J. L. Gressitt.

DISTRIBUTION: Formosa.

Agriotes fulgens Ôhira, 1966

Agriotes fulgens Ôhira, 1966, *Kontyû* 34(4): 332 (Formosa).

SPECIMENS EXAMINED: Mizuho, 6 ex., 22.IV.1932, J. L. Gressitt.

DISTRIBUTION: Formosa.

Agriotes angustatus Miwa, 1928

Agriotes angustatus Miwa, 1928, *Ins. Mats.* 3(1): 46 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 234 (Formosa).

SPECIMENS EXAMINED: Hori, 2 ex., VI-VII.1954 (obtained from a native collector). Taipei, 1 ex., 28.III.1965, C. M. Yoshimoto & B. D. Perkins.

DISTRIBUTION: Formosa.

Subfamily ADRASTINAE Fleutiaux, 1940

Glyphonyx rubricollis rubricollis Miwa, 1928 Fig. 1 K.

Glyphonyx rubricollis Miwa, 1928, *Ins. Mats.* 3(1): 49, pl. I, f. 16 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 238 (Formosa). — Ôhira, *Kontyû* 34(4): 335 (Formosa).

SPECIMENS EXAMINED: Rokki, 4 ex., 17.V.1934, J. L. Gressitt. Hori, 11 ex., VI.1953 and VII.1954 (obtained from a native collector).

DISTRIBUTION: Formosa.

Glyphonyx formosanus Ôhira, new species Fig. 1 O.

♀. Length 8 mm, breadth about 2.5 mm. Body robust, elongate, almost parallel-sided and convex above; surface entirely black except antennae (2 basal segments blackish brown) and legs dark reddish brown, opaque and clothed with golden-yellow pubescence all over. *Head* gently convex between eyes, flattened on vertical portion between antennae, with frons having a very shallow, subtriangular, median concavity; surface densely and coarsely punctate; clypeal margin V-shaped, well ridged and obtusely angulated at middle; antennae slender, extending beyond posterior angles of pronotum by the apical segment at least, 2nd segment small and subcylindrical, 3rd subconic and slightly longer than 2nd, from 4th to 10th weakly serrate. Pronotum subquadrate, nearly as long as broad; disc strongly convex, densely and coarsely

punctate, median longitudinal smooth line clearly seen at posterior 2/3; posterior angles projected behind, not divergent, each of them bears a distinct carina above which is prolonged anteriorly near anterior margin. Scutellum flattened, tongue-shaped. Elytra about $2.2 \times$ as long as basal breadth; striae deep and well defined, their intervals minutely but densely punctulate and irregularly and transversely rugose, but not granulated.

♂ unknown.

Holotype ♀ (BISHOP 9488), Tsaoshan, 15.V.1958, K. S. Lin.

DISTRIBUTION: Formosa.

This new species is somewhat allied to *Glyphonyx haterumarum* Ôhira, 1968 from the Ryukyus, but can be distinguished from the latter by the smaller, and more parallel-sided body and the pronotum and elytra very densely and coarsely punctate, etc.

Silesis sauteri Miwa, 1930

Silesis sauteri Miwa, 1930, *Wien. Ent. Zeitschr.* 48(2): 95 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 239, 265, pl. IX, f. 7 (Ryukyus, Formosa). — Ôhira, 1966, *Kontyû* 34(4): 335 (Formosa)

SPECIMENS EXAMINED: Sakahen near Karenko, 9 ex., 15.VII.1934, J. L. Gressitt. Hori, 17 ex., VI-VII.1954 (obtained from a native collector).

DISTRIBUTION: Formosa, Ryukyus.

Subfamily HEMIOPSINAE Fleutiaux, 1947

Hemiops flava Laporte de Castelnau, 1836

Hemiops flava Laporte de Castelnau, 1836, in Sibermann *Rev. Ent.* 4: 15 (China, Java, Malay, Indo-China). — Bates, 1866, *Proc. Zool. Soc. Lond.*: 350 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 241 (Formosa). — Fleutiaux, 1940, *Ann. Soc. Ent. France* 109: 32 (Indo-China). — Ôhira, 1966, *Kontyû* 34(3): 217 (Formosa).

SPECIMENS EXAMINED: Hori, 4 ♂♂, 25.V.1932; 3 ♂♂, same locality, VII.1935, J. L. Gressitt. Kuraru, 6 ♂♂, VIII.1934, J. L. Gressitt.

DISTRIBUTION: Formosa, Oriental region.

Subfamily CARDIOPHORINAE Leng, 1910

Dicronychus (Platynychus) formosanus (Matsumura, 1910)

Cardiophorus formosanus Matsumura, 1910, *Schäd. Nütz. Insekt. Zucker. Formosas*: 38, pl. XXVII, f. 21, 22 (Formosa). — Matsumura, 1911, *Mém. Soc. Ent. Bleg.* 18: 145 (Formosa).

Platynychus formosanus: Miwa, 1934, Fauna Elat. Japan: 212, 265 (Ryukyus, Formosa).

Dicronychus (Platynychus) formosanus: Ôhira, 1966, *Kontyû* 34(4): 338, f. 69, 70 (Formosa).

SPECIMENS EXAMINED: Hori, 7 ex., VI.1954 (obtained from a native collector).

DISTRIBUTION: Formosa, Ryukyus.

Paracardiophorus devastans (Matsumura, 1910)

Cardiophorus devastans Matsumura, 1910, Schäd. Nütz. Insekt. Zucker. Formosas: 38, pl. XXVII, f. 19 ♀ (Formosa). — Miwa, 1911, *Mém. Soc. Ent. Belg.* **18**: 145 (Formosa).

Paracardiophorus devastans: Ôhira, 1966, *Kontyû* **34**(4): 338 (Formosa).

SPECIMENS EXAMINED: Hori, 2 ex., VII. 1953 (obtained from a native collector).

DISTRIBUTION: Formosa.

Paracardiophorus loochoensis Miwa, 1934

Paracardiophorus loochoensis Miwa, 1934, Fauna Elat. Japan: 255, pl. VIII, f. 11 (Ryukyus).

— Ôhira, 1966, *Kontyû* **34**(4): 337 (Formosa).

SPECIMENS EXAMINED: Kuraru, 1 ex., 6.V.1934, J. L. Gressitt. Keelung, 5 ex., 29.XI.1957, T. C. Maa. Sozan, 1 ex., 4-5.VIII.1963, J. L. Gressitt & T. C. Maa.

DISTRIBUTION: Ryukyus, Formosa.

Cardiotarsus rarus Miwa, 1927 Fig. 1 P.

Cardiotarsus rarus Miwa, 1927, *Ins. Mats.* **2**(2): 108, f. 4 (Formosa). — Miwa, 1934, Fauna Elat. Japan: 213 (Formosa). — Ôhira, 1966, *Kontyû* **34**(4): 338 (Formosa).

SPECIMENS EXAMINED: Haasenzan, 1 ♂, 1 ♀, 23.VI.1934, J. L. Gressitt. Hori, 1 ♀, 1953 (obtained from a native collector).

DISTRIBUTION: Formosa.