

Description of a New Species of *Arthromacra* (Coleoptera, Tenebrionidae, Lagriinae) from Taiwan

Masahiro SAITÔ¹⁾ and Kiyoshi ANDO²⁾

¹⁾ 4–3–23–115 Mikuni-higashi, Mikuni-chô, Sakai-shi, Fukui Pref., 913–0016 Japan
heteromerasaito@fork.ocn.ne.jp

²⁾ Entomological Laboratory, Faculty of Agriculture, Ehime University
5–7, Tarumi 3 chôme, Matsuyama, 790–8566 Japan

Abstract A new species, *Arthromacra takedai* sp. nov., is described from Taiwan. This new species is closely related to *Arthromacra amamiana* NAKANE, 1963, but differs from the latter in the morphological differences of male genitalia.

In the Taiwanese fauna of the genus *Arthromacra* KIRBY, 1837, seven species have been known since MERKL (2004) added one new species after the revisional notes of SAITÔ (1995). Recently, we examined five unknown specimens of the genus from Taiwan collected by Messrs. H. MAKIHARA and S. TAKEDA. After careful examinations, we concluded that these are new to science, and closely allied to *A. amamiana* NAKANE, 1963. Morphological differences between them are discussed in the description hereinafter.

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The holotype designated in this study is deposited in the National Museum of Natural Science, Taichung, Taiwan (NMNT). The paratypes will be deposited in the Lake Biwa Museum, Shiga (LBM), and the private collection of M. SAITÔ (MSC) and K. ANDO (CKAO).

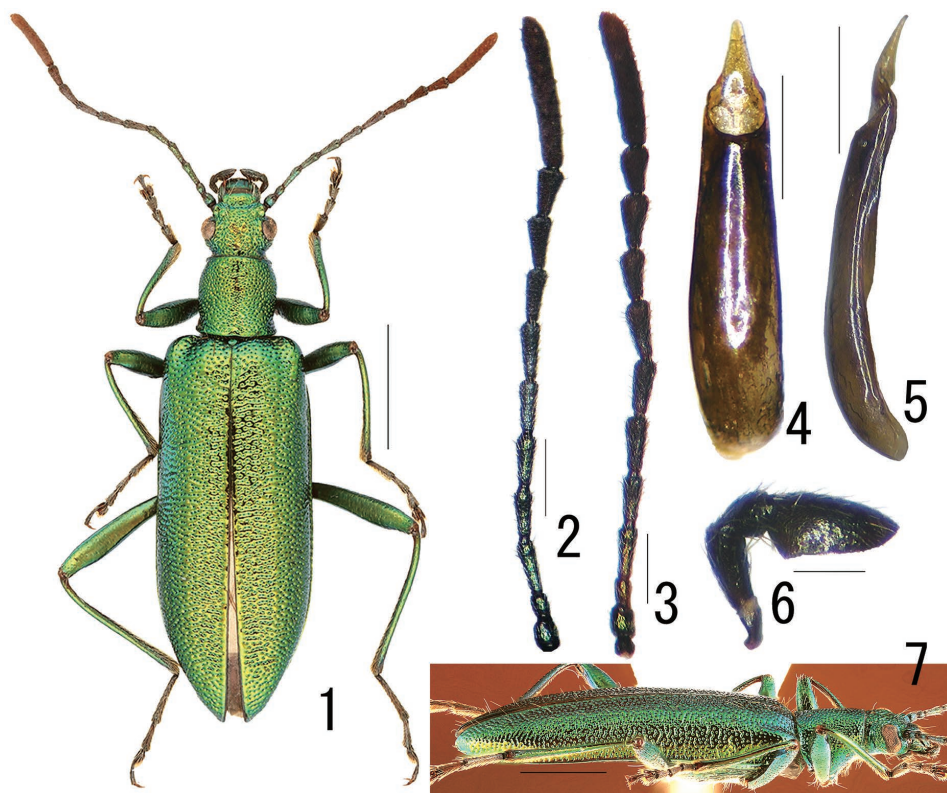
Morphological abbreviations used herein are as follows: L — body length (= length from apical margin of clypeus to elytral apices); AL — length of aedeagus; AW — width of aedeagus; CL — clypeal length; CW — clypeal width; ED — eye diameter; EL — elytral length; EW — elytral width; FW — width across frons (= distance between eyes); HW — cranial width; Mta1stL — length of 1st metathoracic tarsomere; MtiL — metathoracic tibial length; PL — pronotal length; PW — pronotal width; W — body width (= width across humeri). The average values of the measurements are given in parenthesis after the range.

Arthromacra takedai M. SAITÔ et ANDO, sp. nov.

[Japanese name: Takeda-ao-hamushidamashi]

(Figs. 1–7)

Body elongate, L/W 3.46–3.98 (3.74, n = 5), subcylindrical, parallel-sided, moderately convex dorsad; elytra with sparse and rather long white pubescence (Fig. 7). Dorsal surface (Fig. 1), labrum, mandibles, coxae, trochanters, femora and tibiae brilliant metallic green; maxillary palpi, gula and tarsi dark green with slightly metallic luster; antennae green with metallic luster in basal five antennomeres, and gradually becoming infusate apicad. Ventral surface entirely green with metallic luster,



Figs. 1–7. *Arthromacra takedai* sp. nov. — 1, 7, Habitus (holotype: 1, dorsal view; 7, lateral view); 2, 3, antennae (2, male; 3, female); 4, 5, aedeagus (4, dorsal view; 5, lateral view); 6, maxillary palpus in male. Scales: 2.0 mm for 1, 7; 0.5 mm for 2–5; 0.2 mm for 6.

rather sparsely covered with white pubescence.

M a l e. Head nearly rhombic in dorsal view, slightly narrower than pronotum; vertex and frons flattened, weakly swollen around genae, strongly, evenly and closely punctate except for the central area and around genae; fronto-clypeal furrow complete and distinctly curved forward; temple roundly narrowing backward; clypeus trapezoidal, weakly convex, CL/CW 0.40–0.44 (0.42, $n = 3$), moderately and evenly punctate, weakly rounded at apex. Eyes protruding, FW/ED 2.90–3.33 (3.11, $n = 3$). Terminal maxillary palpomere (Fig. 6) rather oblong, securiform; outer margin about 1.1 times as long as inner margin ($n = 1$); apex oblique. Antennae (Fig. 2) slender, filiform, with apex of 6th antennomere reaching the basal angle of pronotum; penultimate antennomere oblong, dilated apicad; terminal antennomere as long as the total length of three preceding antennomeres combined; relative lengths of each antennomere from base to apex ($n = 1$): 0.60, 0.43, 1.00, 0.90, 0.95, 0.98, 1.05, 0.95, 0.95, 0.88, 2.76; relative length to width of each antennomere from basal to apical ($n = 1$): 1.39, 1.38, 3.23, 2.93, 2.86, 2.93, 3.14, 2.67, 2.22, 1.95, 6.44.

Pronotum subcylindrical, PW/PL 1.00–1.06 (1.03, $n = 3$), PW/HW 1.02–1.04 (1.03, $n = 3$), PW/EW 0.50–0.52 (0.51, $n = 3$), widest at the base, narrowing forward in nearly straight line, weakly constricted before base; anterior angles oblique; basal angles produced; anterior margin weakly arcuate; basal margin weakly sinuate in middle; disc evenly, closely and strongly punctate. Scutellum trapezoi-

dal, rounded apically, almost smooth.

Elytra elongate, subparallel at sides, widest behind the middle, weakly convergent apicad in apical 2/5; EL/EW 2.46–2.65 (2.56, $n = 3$); disc closely and evenly punctate, punctures irregular, extremely strong, those on disc distinctly fused with each other by transverse rugosities.

Ventral surface with sparse and short wrinkles; metaventricle and metaepimeron very closely punctate at sides; abdomen densely covered with setiferous punctures; 5th ventrite with apical margin weakly sinuate laterally; 6th ventrite exposed, not produced, weakly rounded at apex.

Aedeagus (Fig. 4, 5) elongate; AL/EL about 0.29 ($n = 2$), AL/AW about 4.7 ($n = 1$); parameres isosceles triangular and fused with each other, about 1.5 times as long as wide ($n = 1$), weakly curved downward in lateral view; basal piece elongate, weakly narrowing apicad and about 3.7 times as long as the length of parameres in dorsal view, widely curved downward in lateral view.

Legs slender; meso- and metatrochanters slender, sharply pointed outward; MtiL/EL 0.38–0.40 (0.39, $n = 3$) and MtiL/EW 0.94–1.02 (0.99, $n = 3$); Mta1stL/MtiL 0.35–0.37 (0.36, $n = 3$), relative lengths of each hind tarsomere from base to apex ($n = 1$): 1.00, 0.83, 0.11, 0.57.

F e m a l e. Eyes smaller, FW/ED 3.85–4.00 (3.93, $n = 2$); L/W 3.46–3.57 (3.52, $n = 2$); EL/EW 2.41–2.52 (2.47, $n = 2$); PW/HW 1.09–1.10 (1.10, $n = 2$); PW/EW 0.49 ($n = 2$). Relative lengths of each antennomere from base to apex ($n = 1$): 0.63, 0.54, 1.00, 0.88, 1.04, 1.04, 1.04, 0.92, 0.96, 0.83, 2.63; relative length to width of each antennomere ($n = 1$): 1.25, 1.63, 2.67, 2.33, 2.27, 2.50, 2.27, 2.00, 2.09, 1.54, 5.25. Mta1stL/MtiL 0.33 ($n = 1$), relative lengths of each hind tarsomere from base to apex ($n = 1$): 1.00, 0.56, 0.09, 0.58; in single female paratype, head and pronotum reddish brown with metallic luster.

Measurements ($n = 3$ ♂♂, 2 ♀♀ in mm). L: ♂ 8.55–8.85 (8.68), ♀ 10.10–10.55 (10.33); W: ♂ 2.15–2.30 (2.23), ♀ 2.83–3.05 (2.94).

Type series. Holotype: ♂, Liyuan, alt. 1,793 m, Haiduan Town, Taitung County, 22.IV.2015, S. TAKEDA leg. (Fig. 1, 2, 7; NMNT). Paratypes: 2 ♂♂, same data as the holotype (Fig. 4, 5, 6; LBM & MSC); 1 ♀, Hohuanchi-sungchuankang, Nantou Hsien, 24.VI.1976, H. MAKIHARA leg. (CKAO); 1 ♀, Li-shan, Taichung Hsien, 25.VI.1976, H. MAKIHARA leg. (Fig. 3; MSC).

Notes. *Arthromacra takedai* sp. nov. resembles *A. amamiana* NAKANE in the morphological appearance, and is distinguished from the latter in the following characteristics in male: 1) Antennae longer, about 0.55 times as long as body, while about 0.47 times in *A. amamiana*; penultimate antennomeres oblong instead of triangular in the latter; ultimate antennomere as long as the total length of three preceding antennomeres combined, instead of shorter in the latter; 2) posterior margin of fifth abdominal ventrite weakly sinuate laterally, six abdominal ventrite weakly rounded at apex; 3) meso- and metatrochanters sharply pointed outward; 4) parameres about 1.5 times as long as wide, instead of about 1.9 times in the latter; 5) elytral punctures on disc more distinctly fused with each other by transverse rugosities than in the latter; and 6) five basal antennomeres, labrum, gula, coxae, trochanters, femora and tibiae with greenish metallic luster, while light reddish brown, without greenish metallic luster in *A. amamiana*. This new species is also similar to *A. pretiosa* REICHE from Europe and Turkey, but distinguished from the latter in having lustrous metallic green femora and tibiae instead of dark color ones in the latter.

Etymology. This specific name is given in honor of Mr. S. TAKEDA who collected the holotype with two paratypes of the new species.

要 約

斎藤昌弘・安藤清志：台湾産アオハムシダマシ属 *Arthromacra* 1 新種 (鞘翅目ゴミムシダマシ科ハムシダマシ亜科) の記載。—— 台湾より採集されたアオハムシダマシ属の1新種をタケダアオハムシダマシ *Arthromacra takedai* sp. nov. と命名して記載した。本種はアマミアオハムシダマシ *A. amamiana* NAKANE に類似しているが、後者とは♂の触角基半および腿節・脛節に緑色の金属光沢を持つことや、交尾器の側片が収縮されることで識別できる。

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