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Notes on Taiwanese Caraboidea (Coleoptera) V. A Review of the Tribe Odacanthini (Carabidae) in Taiwan, with Description of *Ophionea bhamoensis taiwanensis* subsp. nov.

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Abstract. The tribe Odacanthini in Taiwan is reviewed. Three species, *Archicolliuris bimaculata bimaculata* (Redtenbacher, 1844), *Mimocolliuris insulana* Habu, 1979, and *Eucolliuris litura* (Schmidt-Goebel, 1846), are newly added to the Taiwanese carabid fauna. *Ophionea bhamoensis taiwanensis* subsp. nov. is described. New collecting data are provided for four previously recorded species, *Ophionea ishiii ishiii* Habu, 1961, *Oph. indica* (Thunberg, 1784), *Odacantha metallica* (Fairmaire, 1884), and *Eucolliuris fuscipennis* (Chaudoir, 1850). A key to the nine species of the Odacanthini in Taiwan is given.

Key words: new record, new subspecies, Odacanthini, Taiwan, taxonomy.

INTRODUCTION

The carabid tribe Odacanthini has a worldwide distribution (Liebke, 1938). Members of the tribe have a characteristic form with a rhomboidal head and subcylindrical prothorax. They generally live in wet grassy places around ponds and rivers, and also in cultivated areas like rice and sugarcane fields (Habu, 1967). They are often attracted by light. Five species in four genera have hitherto been reported from Taiwan (Bousquet and Ito, 2003). In this paper, we report eight species of the Odacanthini taken from several places in Taiwan during 2001~2002, including three species new to Taiwan and one new subspecies, the latter of which is described herein.

Abbreviations used in the present paper are as follows: EL, length of the elytra; EW, maximum width of the elytra; FW, width of the frons between the eyes; HL, length of the head from the clypeal front margin to the neck constriction; HW, width of the head at eye level; PA, width of the anterior margin of the prothorax; PB, width of the prothoracic base; PL, length of the prothorax at the median line; PW, maximum width of the prothorax; KTHJ, K. Terada Collection, Hiroshima, Japan; and NMNS, National Museum of Natural Science, Taichung, Taiwan.

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Key to Taiwanese species of the Odacanthini*

**Mimocolliuris sauteri* (Liebke, 1933) was not examined in this study. It was diagnosed based on Liebke's original description.

1 Prothorax reddish-yellow or orange..... 2
1' Prothorax black..... 5

2 Elytra black in apical area (Fig. 1A); lateral borders of prothorax obviously carinate (Fig. 1D, F); proepisterna evidently punctate (Fig. 1D-F); metatarsomere IV less bilobed (Fig. 1J)..... *Archicolliuris*

bimaculata bimaculata (Redtenbacher)

2' Elytra reddish-yellow or orange in apical area (Figs. 3A, 7A, 10A); lateral borders of prothorax much reduced posteriorly (Fig. 5A, B); proepisterna glabrous (Fig. 5A, B); metatarsomere IV obviously bilobed (Figs. 3E, 7F, 10F)..... 3 (*Ophionea*)

3 Elytra reddish-yellow or orange at base (Fig. 3A); elytral interval III with 4 dorsal setae (Fig. 4F)..... *Ophionea bhamoensis taiwanensis* subsp. nov.

3' Elytra black at base (Figs. 7A, 10A); elytral interval III with 4 or more dorsal setae..... 4

4 Prothorax shiny, less than twice as long as wide, with lateral setae on each side (Fig. 7C); elytra with posterior whitish spots, but without anterior spots (Fig. 7D); elytral interval III with more than 5 dorsal setae (Fig. 7G, H) .... *Ophionea ishiii ishiii* Habu

4' Prothorax matt, almost twice as long as wide, without lateral setae (Fig. 10C); elytra with whitish spots on both anterior and posterior sides (Fig. 10D); elytral interval III with 4 dorsal setae (Fig. 10G, H)..... ..... *Ophionea indica* (Thunberg)

5 Elytra less than twice as long as prothorax; elytral lateral border widely interrupted behind shoulder (Fig. 14E-G); femora bicolored (whitish-yellow basally and dark-brown apically) (Fig. 13G)..... 6 (*Mimocolliuris*)

5' Elytra more than twice as long as prothorax; elytral lateral border complete; legs uniform in color (yellowish-brown) along entire length... 7

6 Head with several setae in addition to regular supraorbital setae (Fig. 13D); elytra with vaguely outlined, dirty-yellowish patches on anterior side and whitish spots on posterior side (Fig. 13A); each of elytral intervals I, III, and V with several dorsal setae (Fig. 14D)..... *Mimocolliuris* (*Paramimocolliuris*) *insulana* Habu

6' Head without additional setae; elytra with yellowish spots on posterior side but without patches on anterior side; elytral interval I without dorsal setae (after Liebke 1933)..... *Mimocolliuris sauteri* (Liebke): The type locality is Taiwan, but the exact place in Taiwan is unknown. No additional material of the species has been discovered in Taiwan or in other parts of the world.

7 Head glabrous (Fig. 16D); prothorax glabrous on disc (Fig. 16B), with lateral grooves (Fig. 16C) and lateral rows of setae (Fig. 16E); ventrites III~V pubescent (Fig. 16F); apical ventrite in both sexes with 4 apical setae on each side (Fig. 16G)..... *Odacantha* (*Heliocasnonia*) *metallica* (Fairmaire)

7' Head with distinct punctures; prothorax punctate on disc, without lateral groove or lateral seta; ventrites glabrous; apical ventrite in females with 2 apical setae on each side and in males with 1 apical seta on each side..... ..... 8 (*Eucolliuris*)

8 Punctures on head not extending behind level of eye (Fig. 18B); antennomeres I~III yellowish-brown (Fig. 18D); prothorax less bulging laterally (Fig. 18C); elytral striae with smaller punctures..... *Eucolliuris fuscipennis* (Chaudoir)

8' Punctures on head extending behind level of eye (Fig. 20B); antennomeres I~III dark-brown (Fig. 20D); prothorax well bulging laterally (Fig. 20C); elytral striae with larger punctures ..... *Eucolliuris litura* (Schmidt-Goebel).

DESCRIPTIONS

Archicolliuris bimaculata bimaculata (Redtenbacher, 1844) [new record for Taiwan]

(Figs. 1, 2)

Casnonia bimaculata Redtenbacher, 1844: 498.

Genitalia: Aedeagal median lobe elongate, slightly curved (Fig. 2A); apical orifice turned to right in dorsal view (Fig. 2D); apical lobe flat, asymmetrical, marginally rounded, with bluntly pointed tip on right side (Fig. 2B, E, F); endophallus with a faint spot near middle (Fig. 2B: mid arrow); left paramere large, ear-shaped, right paramere narrower than left one (Fig. 2A, D). Dark striations in median lobe (Fig. 2A, B) are not truly pigmented structures. Uneven thickness of endophallic membrane probably causes this effect.

Apical segment of each stylus fully curved externally, with 3 spines ventrally (Fig. 2G) and 1 spine dorsally; basal segment with 10~12 marginal spines ventrally.

Measurements (based on 3 specimens): Length 6.89~7.19 mm. Width 1.85~2.10 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.31~0.34: 0.75~0.76:

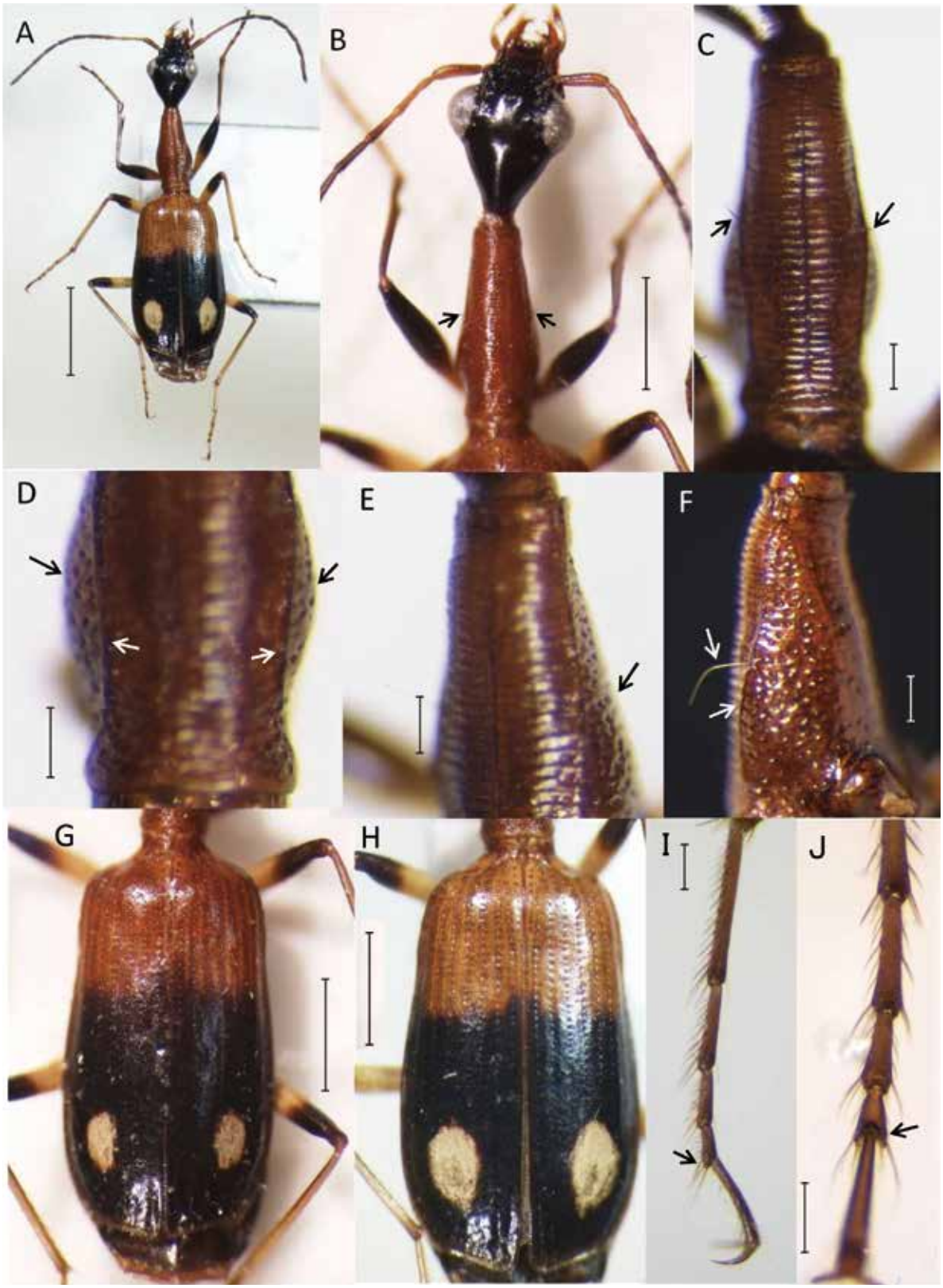

Fig. 1. *Archicolliuris bimaculata bimaculata*. A. ♀ from Wanluan, Pingtung County, Taiwan. B. Head and prothorax. Each arrow indicates the position of a lateral seta of the prothorax. C. Prothorax with transverse wrinkles on the surface. Each arrow indicates a lateral seta. D. Basal half of the prothorax, showing proepisterna (upper two arrows) seen from dorsal side. Each of the two lower arrows indicates a lateral carina. E. Apical half of the prothorax, showing the proepisternum (arrow). F. Prothorax in right-lateral view, showing punctures on the proepisternum, lateral seta (upper arrow), and lateral carina (lower arrow). G. Elytra with smaller spots. H. Elytra with larger spots. I. Right metatarsus in lateral view. The arrow indicates a less-bilobed tarsomere IV. J. Right metatarsus in dorsal view. The arrow indicates a less-bilobed tarsomere IV. Scales = 2 mm (A); 1 mm (B, G, H); and 0.2 mm (C-F, I, J).

0.85~0.90: 0.88~0.93: 0.88~0.93: 0.90~0.93: 0.85~0.88: 0.83~0.86: 0.78~0.81: 0.92~0.97. HL/HW, 1.19~1.28. HW/FW, 1.84~1.95. Length of tempora/eye diameter, 1.32~1.48. PL/PW, 2.07~2.19. PL/EL, 0.44~0.48. PW/HW, 0.63~0.68. PW/PA, 1.75~1.95. PW/PB, 1.13~1.23. PB/PA, 1.42~1.53. EW/PW, 2.40~2.59. EL/EW, 1.75~1.89.

Specimens examined: Pingtung County, Wanluan, Chiapin River [屏東縣, 萬巒, 佳平溪]: 11 exs. 10-xi-2001, K. Terada & M.H. Hsu leg. (Terada-67); 21 exs. 11-xi-2001, K. Terada & M.H. Hsu leg. (Terada-68); 19 exs. 24-xi-2001, K. Terada & M.H. Hsu leg. (Terada-70). Deposited in NMNS and KTHJ. The above specimens were collected at the riverside, where many reeds were growing.

Remarks: The genus *Archicolliuris* is very similar to the genus *Ophionea* in form and coloration. They can be distinguished from each other by the characters mentioned in the key. Owing to the fact that the lateral borders of the

Fig. 2. Genitalia of *Archicolliuris bimaculata bimaculata*. A. Aedeagus in left-ventral view. The left paramere is indicated by "lp" and the right one by "rp". B. Enlarged image of A, showing a faint spot (middle arrow). The left arrow indicates the apex of the left paramere. The right arrow indicates the tip of the apical lobe. C. Aedeagus in right-ventral view. D. Aedeagus in dorsal view. The arrow indicates the apical orifice. E. Apical portion of the aedeagus in right-lateral view (dry condition). The arrow indicates the tip of the apical lobe. F. Apical portion of the aedeagus, showing the apical lobe with a bluntly pointed tip (arrow). G. Left stylus in ventral view, showing the apical segment with three spines (arrows). Scales = 0.2 mm (A, C-E); 0.1 mm (B); and 0.05 mm (F, G).

prothorax are evidently carinate (Fig. 1D, F) and the anterior reddish-yellow area of the elytra is proportionately narrower than the posterior blackish area (Fig. 1G, H), the Taiwanese taxon belongs to the subspecies *bimaculata*. The relatively short head (HL/HW, 1.19~1.28) also characterizes this subspecies.

Habu (1963, 1967) reported several distinguishing characters between A. *bimaculata bimaculata* and *A. bimaculata nipponica*. However, the size of the elytral spot and the proportion of the tempora to the eye diameter are not always useful as diagnostic characters. According to our study, some individuals in our collection have larger elytral spots, whereas others have smaller ones (Fig. 1G, H). The proportion of the tempora to the eye is 1.32~1.48 in our specimens, whereas Habu (1963, 1967) indicated 1.42~1.68 for the subspecies *nipponica*, and 1.18~1.23 for the subspecies *bimaculata*.

Ophionea bhamoensis taiwanensis **Terada et Wu, subsp. nov.**

(Figs. 3-6)

Head black, more or less matt, with a very faintly bluish reflection, labrum brown to dark-brown, mandibles reddish-brown, palpi light-yellowish-brown, antennomeres I~IV yellowish-brown, rest of antennae dark-brown to blackish-brown; prothorax reddish-yellow or orange, more or less matt; elytra reddish-yellow or orange, shiny, elytral spots whitish, elytral fascia black with a bluish reflection; femora yellowish basally and dark-brown apically (yellowish area on profemora is proportionately narrower than dark-brown area, whereas on meso- and meta-femora it is wider); tibiae yellowish-brown to dark-brown (protibiae dark-brown along its entire length, whereas on meso- and meta-tibiae, middle portion lighter than base and apex); tarsi yellowish-brown to brown (tarsomere V darker than tarsomeres I~IV); ventral side reddish-yellow or orange except for blackish ventral fascia.

Microsculpture evident. Elytra and head (frons and vertex) with isodiametric mesh; prothorax and posterior part of head with transverse mesh.

Head rhomboidal, slightly convex; neck 1/4~1/5 as wide as head, with obvious carina along each eye; tempora sparsely and minutely pubescent, laterally very faintly swollen, much longer than eye; eyes moderately prominent; anterior and posterior supraorbital setae present on each side (posterior one located fully apart from eye); frons with V-shaped impression in middle; frontal impressions moderately deep; antennae barely reaching shoulders; tooth of mentum triangular, acute at tip.

Prothorax subcylindrical or bottle-shaped, somewhat constricted near base, widened near middle, about 3/4 as wide as head, almost twice as long as wide, sparsely and minutely pubescent on laterodorsal side, with transverse wrinkles at base and apex, 2 long lateral setae near middle, and lateral carinae much reduced posteriorly; base about 1.5-times as wide as apex; median line fine, obliterated at base and apex.

Elytra moderately long, reaching maximum width slightly behind middle, almost twice as long as wide, sparsely pubescent in lateral and apical areas, with a shallow depression before black fascia, 2 marginal setae near apex of each elytron, and anterior and posterior whitish spots on each elytron; spots oval or elliptic, sometimes greatly reduced in size: anterior spot located on interval V, tangent to anterior margin of black fascia, and posterior spot located on intervals IV and V, completely or halfway embedded inside fascia; apical truncation moderately sinuate; striae represented by rows of punctures which become faint basally and apically; intervals flat, interval III with 4 dorsal setiferous pores.

Ventral side generally impunctate. Prosternum with a few coarse punctures at apex; mesosternum with numerous punctures in narrowed apical area; proepisternum almost glabrous, with a few punctures at base and apex; metaepisternum completely glabrous, long and narrow, about 3-times as long as wide; apical ventrite in ♂ glabrous, emarginate at mid-margin, with 1 apical seta on each side; apical ventrite in ♀ pubescent, with 2 apical setae on each side.

Legs slender. Tarsomere IV of each tarsus fully bilobed; tarsomere V with 2 ventral rows of setae; metafemur with 2 setae (1 near base and 1 in middle).

Genitalia: Aedeagal median lobe elongate, subcylindrical (Fig. 6A-C), with a surface sclerites on apical orifice (Fig. 6A, D: right arrow); apical orifice slightly turned to right in lateral view (Fig. 6B), elliptical in frontal view (Fig. 6D, E); apical lobe short and wide (Fig. 6D: left arrow); endophallus with obscurely defined sclerite (Fig. 6A: left arrow). Left paramere large, ear-shaped; right paramere narrower than left one

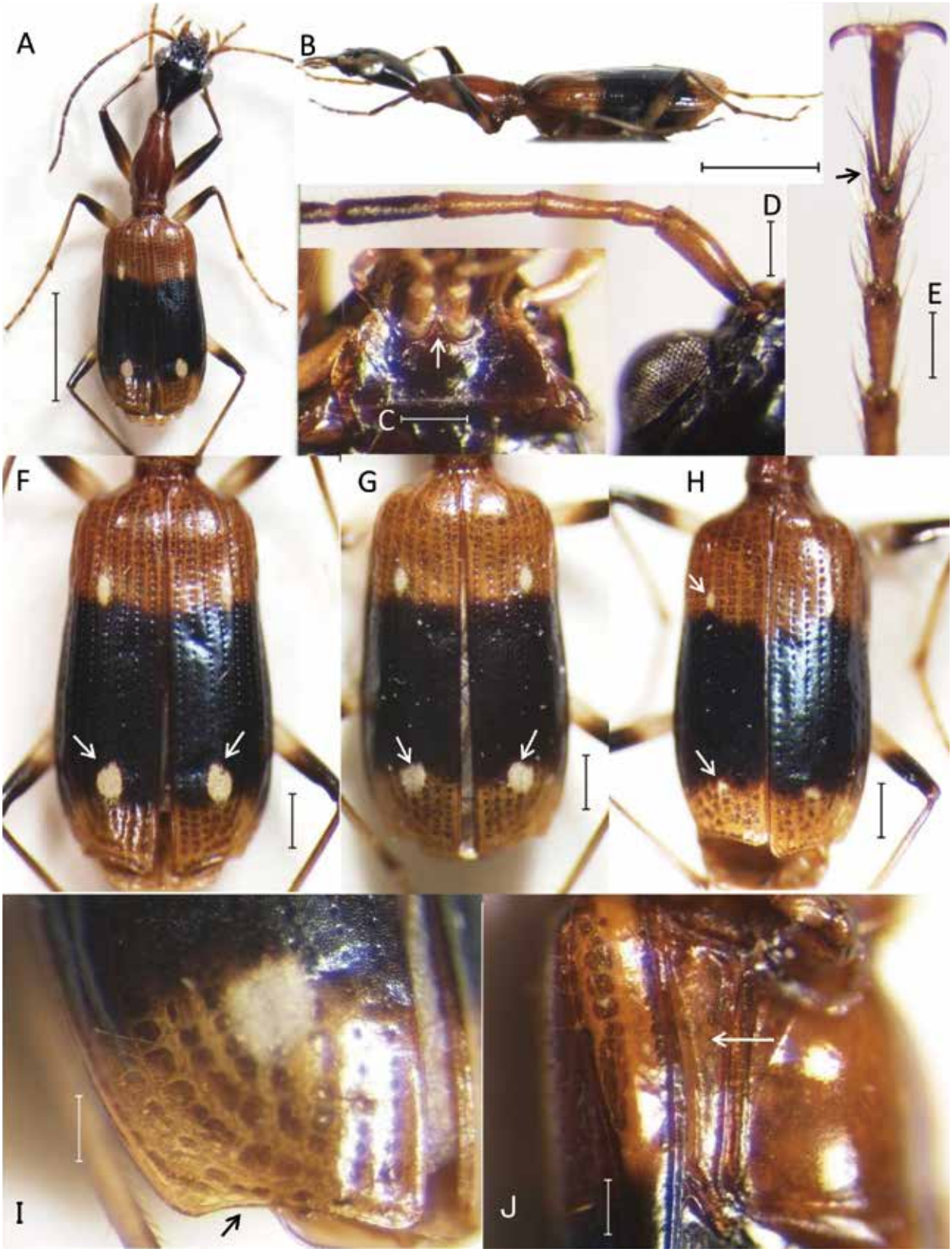

Fig. 3. *Ophionea bhamoensis taiwanensis* subsp. nov. A. Holotype (♂) from Nanao, Yilan County, Taiwan. B. Same specimen in lateral view. C. Mentum with a triangular tooth (arrow). D. Left antenna with antennomeres I~IV lighter in color than the rest of the antenna. E. Right metatarsus with obviously bilobed tarsomere IV (arrow). F. Elytra with posterior spots (arrows) almost completely embedded in black fascia. G. Elytra with posterior spots (arrows) slightly embedded in black fascia. H. Elytra with anterior and posterior spots (arrows) greatly reduced. I. Left elytron with apical sinuation (arrow). J. Right side of the abdomen in lateral view, showing the metaepisternum (arrow). Scale bars = 2 mm (A, B); 0.5 mm (F-H); and 0.2 mm (C-E, I, J).

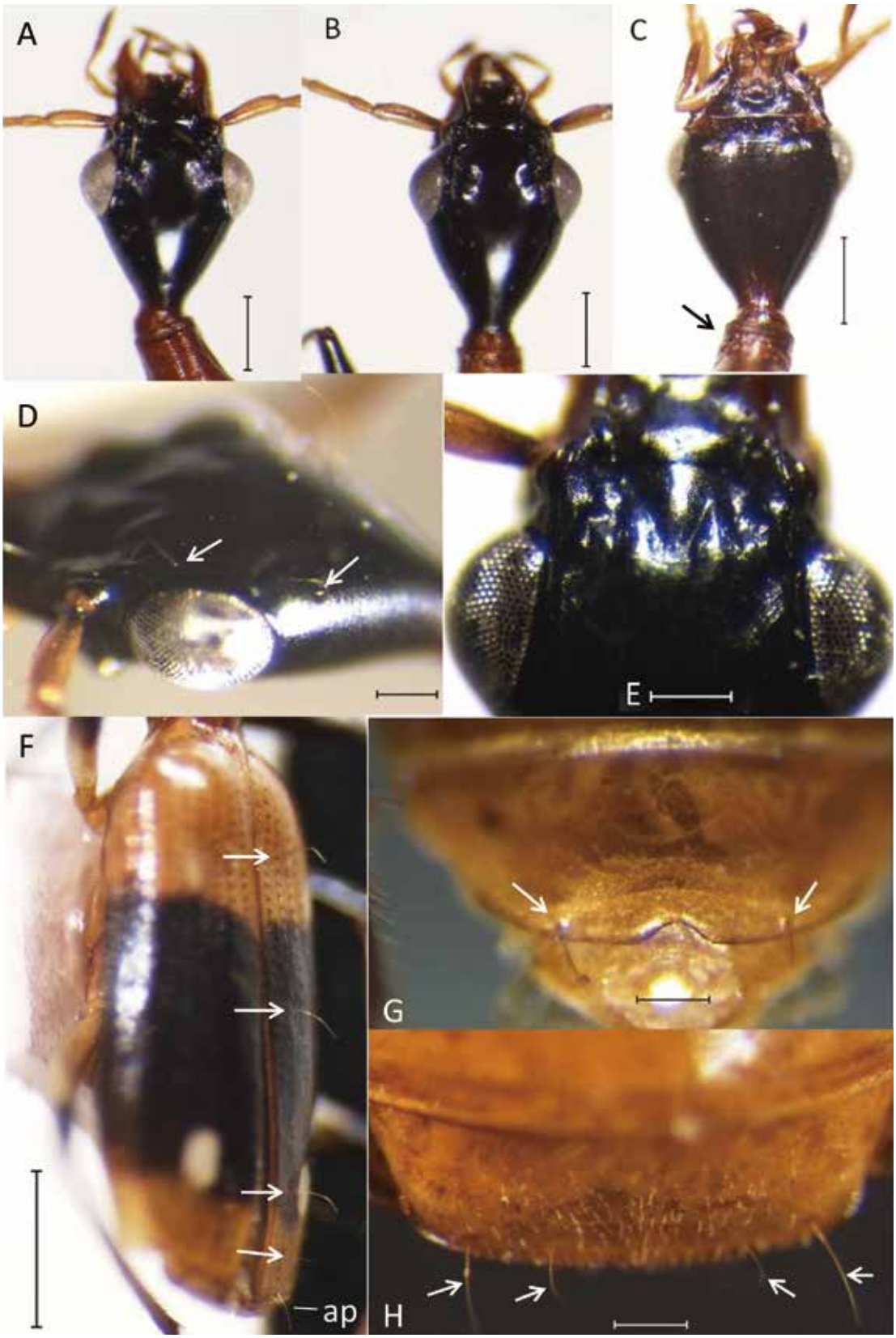

Fig. 4. *Ophionea bhamoensis taiwanensis* subsp. nov. A. Head. B. Head with tempora somewhat longer than in image A. C. Head seen from ventral side. The arrow indicates the prothoracic apex with coarse punctures. D. Head in dorsolateral view, showing two supraorbital setae (arrows). E. Head with V-shaped impression on frons. F. Elytra in dorsolateral view, showing four dorsal setae (arrows) on interval III. Apical seta (ap) is near apical margin. G. Apical portion of abdomen in ♂, showing an apical ventrite with emargination between two setae (arrows). H. Apical portion of the abdomen in ♀, showing an apical ventrite with short pubescence and two pairs of setae (arrows). Scale bars = 1 mm (F); 0.5 mm (A-C); and 0.2 mm (D, E, G, H).

(Fig. 6C).

Apical segment of each stylus with 3 or 4 spines near outer margin of ventral side (Fig. 6F) and 1 spine dorsally; basal segment with 7 or 8 marginal spines ventrally.

Measurements (based on 4 specimens): Length 6.73~7.13 mm. Width 1.84~1.94 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.35~0.36: 0.62~0.66: 0.75~0.84: 0.75~0.82: 0.78~0.84: 0.79~0.85: 0.74~0.80: 0.72~0.84: 0.71~0.80: 0.93~1.00. HL/HW, 1.22~1.25. HW/FW, 1.63~1.72. Length of tempora/eye diameter, 1.45~1.66. PL/PW, 1.87~2.00. PL/EL, 0.42~0.46. PW/HW, 0.70~0.75. PW/PA, 1.88~1.97. PW/PB, 1.22~1.28. PB/PA, 1.51~1.54. EW/PW, 2.15~2.29. EL/EW, 1.92~1.96.

Specimens examined: Holotype: ♂, Yilan

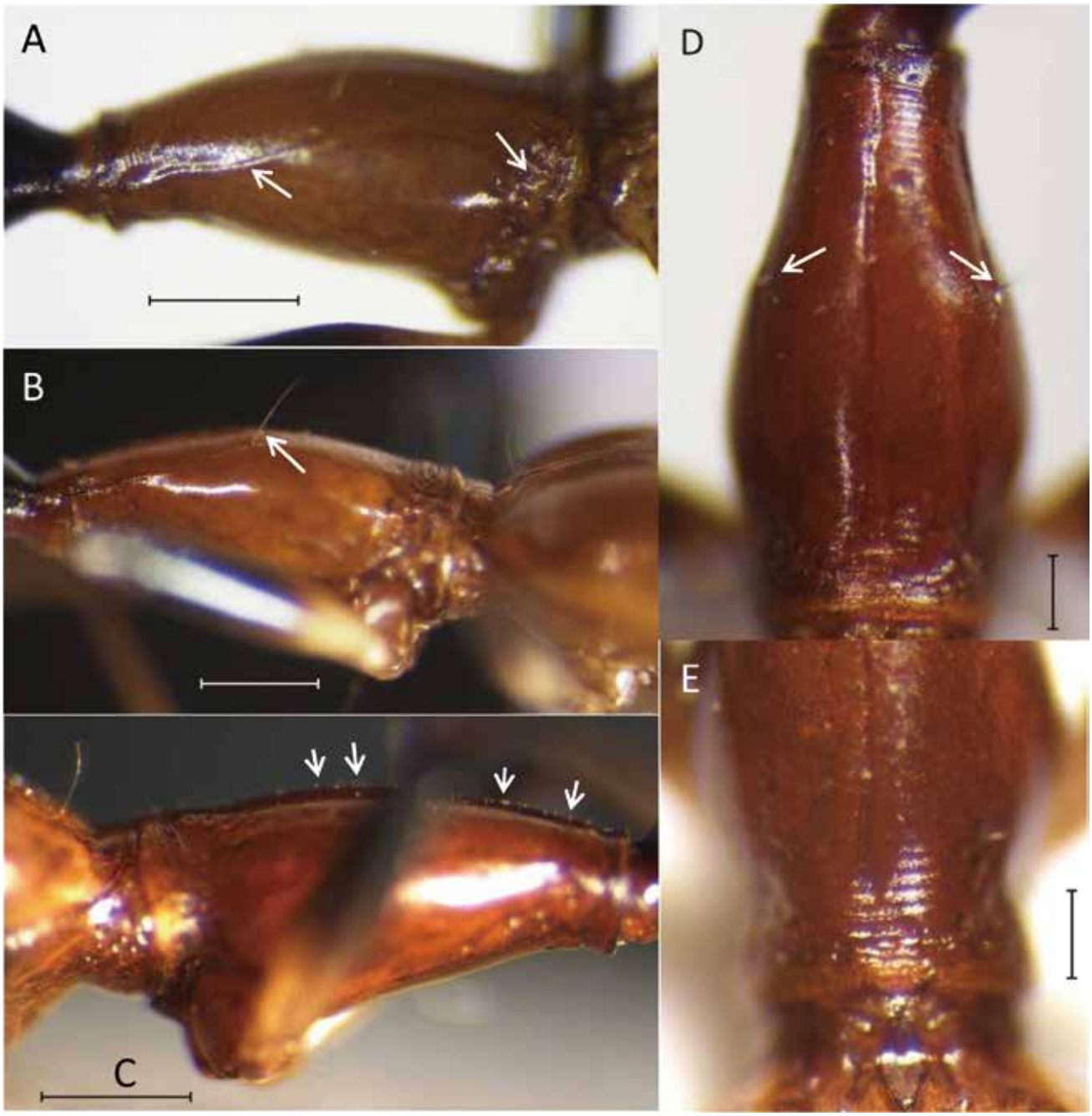

Fig. 5. Prothorax of *Ophionea bhamoensis taiwanensis* subsp. nov. A. Left-lateral side, showing lateral carina (left arrow) and basal punctures (right arrow). B. Left-lateral side, showing a lateral seta (arrow). C. Right-lateral side, showing minute pubescence (arrows) on the dorsal surface. D. Dorsal side, showing faint wrinkles near the apex. Arrows indicate the positions of lateral setae. E. Dorsal side, showing faint wrinkles near the base. Scale bars = 0.5 mm (A-C) and 0.2 mm (D, E).

County, Nanao, Tawan River [宜蘭縣, 南澳, 大灣溪], 18-iv-2002, M.H. Hsu leg. (Terada-102). Deposited in NMNS. Paratypes: 3 ♂♂, 2 ♀♀, 13-ii-2002, K. Terada leg. (Terada-84); 1 ♂, 2 ♀♀, 2-iii-2002, K. Terada leg. (Terada-89); 1 ♂, 1 ♀, 4-iii-2002, K. Terada leg. (Terada-90); 1 ♀, 8-iii-2002, K. Terada leg. (Terada-91); 2 ♂♂, 1 ♀, 18-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-102); 2 ♀♀, 20-vi-2002, M.H. Hsu & Y.L. Yang leg. (Terada-103). The locality of the paratypes is the same as that of the holotype. Deposited in NMNS and KTHJ. The above specimens were collected on a sandy bank of a small river, where many reeds were growing.

Remarks: The *nigrofasciata* group of the genus *Ophionea* is characterized by the color pattern of the elytra including the reddish-yellow base, median black fascia, and reddish-yellow apex. Two small whitish spots on each elytron also characterize this group. Five species of this group are known mainly from Southeast Asia (Baehr 1996, 1997): *O. nigrofasciata* Schmidt-Goebel, 1846 and *O. bhamoensis* Bates, 1892, both described from Myanmar (Burma), *O. bakeri* (Dupuis, 1913) from the Philippines, *O. malickyi* (Baehr, 1996) from Thailand, and *O insignis* (Baehr, 1997) from Java. *Ophionea bhamoensis*, *O. bakeri*, and *O. malickyi* have a pair of long setae laterally on the prothorax, whereas in *O. nigrofasciata* and *O. insignis*, the lateral setae are absent. Both *O. bhamoensis* and *O. bakeri* have an elytral black fascia with a bluish reflection, whereas in the other species (*O nigrofasciata*, *O. insignis*, and *O. malickyi*), the fascia is just black (with no bluish reflection). In the key presented by Baehr (1996), *O. malickyi* belongs to the species group having black fascia without a blue tinge, but at the same time, he wrote "black-blue color of elytral fascia" in the diagnosis of *O. malickyi* (as *Casnoidea*).

Ophionea bhamoensis and *O. bakeri* are

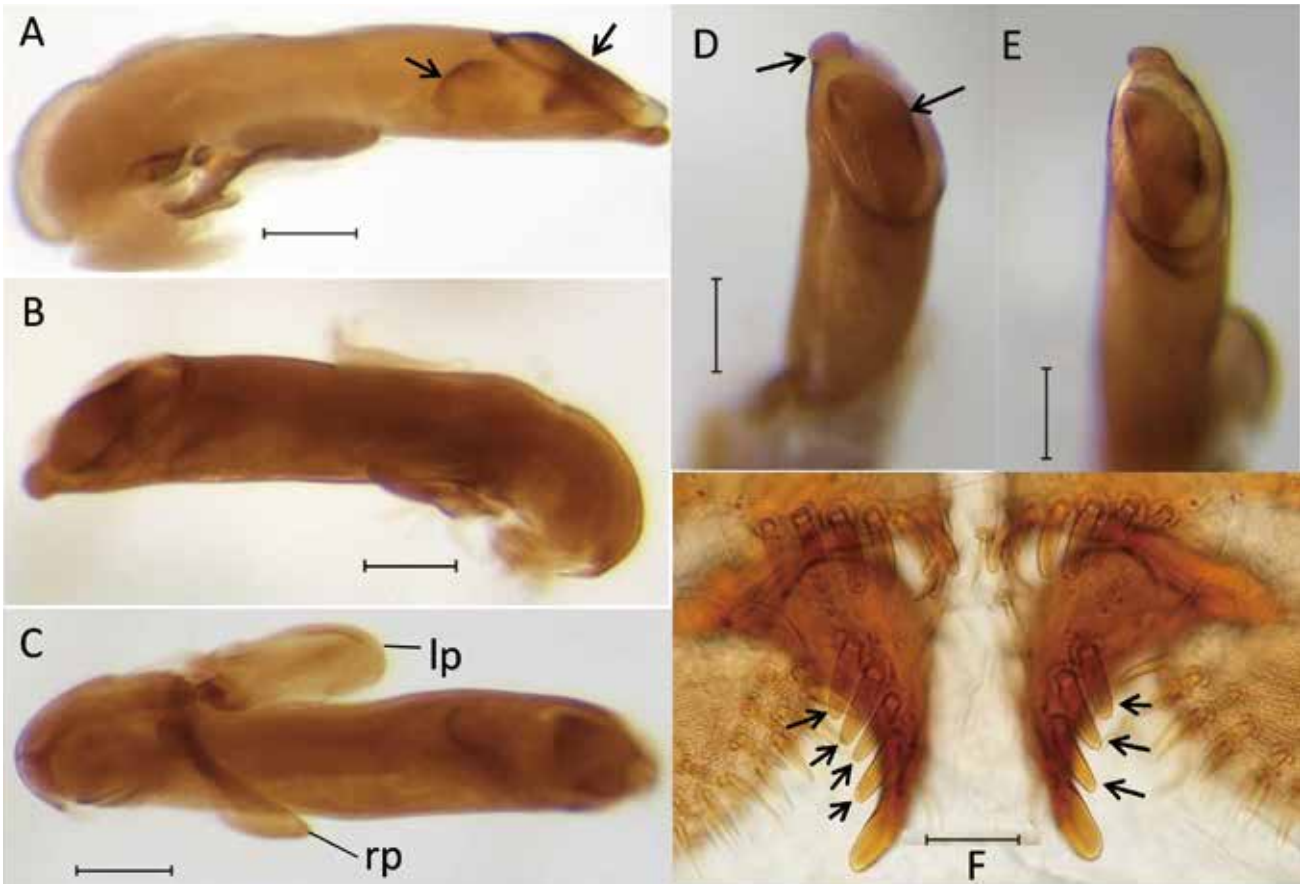

Fig. 6. Genitalia of *Ophionea bhamoensis taiwanensis* subsp. nov. A. Aedeagus in left-lateral view. The left arrow indicates an obscurely defined sclerite. The right arrow indicates a surface sclerite on the apical orifice. B. Aedeagus in right-lateral view. C. Aedeagus in ventral view, showing the left (lp) and right (rp) parameres. D. Aedeagus in right-frontal view, showing the apical lobe (left arrow) and a surface sclerite (right arrow). E. Aedeagus in dorso-frontal view (more dorsal than in image D). F. Styli in ventral view, showing the right apical segment with four spines and left apical segment with three spines (arrows). Scale bars = 0.2 mm (A-E) and 0.05 mm (F).

very similar to each other. In type specimens of *O. bhamoensis* studied by Toledano, the elytral interval III has five or six dorsal setiferous pores, and the anterior whitish spots on the elytra are tangentially placed at the anterior margin of the fascia (Toledano, 2013, pers. comm.). According to Dupuis (1913), however, *O. bakeri* has 3 dorsal setiferous pores on elytral interval III (1 anterior and 2 posterior in position), and the anterior whitish spots on the elytra are inside the black fascia.

The Taiwanese population shares the same characters with the type of *O. bhamoensis*, although the bluish reflection is slightly fainter than in the type, the setiferous pores on elytral interval III are fewer than in the type, and the elytral whitish spots differ in size according to individuals (Fig. 3F-H). The aedeagus is rather simple in structure compared to those of *O. ishiii ishiii* and *O. indica*. In the latter two species, the apical and basal orifices are in an unusual position probably because of a twist of the aedeagal median lobe.

***Ophionea ishiii ishiii* Habu, 1961**

(Figs. 7, 8)

Ophionea (*Setophionea*) *ishiii ishiii* Habu, 1961: 118; 1967: 35; 1982: 98.

Setophionea ishii: Jedlička, 1963: 501.

Ophionea (*Ophionea*) *ishiii*: Bousquet and Ito, 2003: 444.

Genitalia: Aedeagal median lobe elongate, somewhat depressed laterally, gently convex ventrally (Fig. 8B, C), with a surface sclerite on right side of apical orifice (Fig. 9D, E); apical orifice turned to left in left-ventral view (Figs. 8A, 9H), with a small portion of a thin, membranous part on left side (Fig. 9F-I); apical lobe short, small, globular at tip (Fig. 9C); endophallus with a semicircular sclerite (Fig. 8G, left arrow), and a finely striated membranous wall on left side of apical orifice (Figs. 8F, 9B); left paramere large, ear-shaped, right paramere smaller and narrower than left one (Fig. 8A).

Apical segment of each stylus fully curved externally, with 4 spines ventrally and 1 spine dorsally (Fig. 8H, I); basal segment with 7~9 marginal spines ventrally.

Measurements (based on 3 specimens): Length 6.39~6.68 mm. Width 1.79~2.01 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.35~0.36: 0.71~0.72: 0.82~0.84: 0.81~0.84: 0.78~0.84: 0.81~0.84: 0.78~0.84: 0.73~0.78: 0.73~0.81: 0.95~1.05. HL/HW, 1.17~1.24. HW/FW, 1.64~1.67. Length of tempora/eye diameter, 1.46~1.54. PL/PW, 1.76~1.89. PL/EL, 0.42~0.44. PW/HW, 0.68~0.76. PW/PA, 1.84~1.93. PW/PB, 1.17~1.27. PB/PA, 1.47~1.63. EW/PW, 2.20~2.25. EL/EW, 1.76~1.91.

Specimens examined: Taoyuan County, Yangmei [桃園縣, 楊梅]: 2 exs. 16-viii-2001, K. Terada & M.H. Hsu leg. (Terada-40); 3 exs. 20-viii-2001, K. Terada & M.H. Hsu leg. (Terada-41); 3 exs. 28-viii-2001, K. Terada & M.H. Hsu leg. (Terada-44); 1 ex. 4-ix-2001, K. Terada & M.H. Hsu leg. (Terada-45); 11-ix-2001, K. Terada & M.H. Hsu leg. (Terada-49); 1 ex. 14-ix-2001, K. Terada & M.H. Hsu leg. (Terada-51); 26-x-2001, K. Terada & M.H. Hsu leg. (Terada-58); 1 ex. 31-x-2001, K. Terada & M.H. Hsu leg. (Terada-60); 2 exs. 2-xi-2001, K. Terada & M.H. Hsu leg. (Terada-62); 1 ex. 21-ii-2001, K. Terada & M.H. Hsu leg. (Terada-87); 1 ex. 13-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-no number); 3 exs. 18-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-102). Taoyuan County, Luchu, Kengtsu [桃園縣, 蘆竹, 坑子]: 2 exs. 5-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-99); 3 exs. 13-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-101). Deposited in NMNS and KTHJ. The above specimens were collected by a light trap set near a river and ponds in cultivated fields.

Remarks: This species strongly resembles *O. interstitialis* Schmidt-Goebel, 1846, a species widely distributed in Southeast Asia, but distinguished from the latter by the lack of fine pubescence on the head and prothorax. The lack of dorsal setae on elytral interval V is also a diagnostic character of *O. ishiii* (Habu, 1961b).

The subgenus *Setophionea* Habu, 1961 was described with two subspecies, *O. ishiii ishiii* from Japan, Taiwan, and Java, and *O. ishiii hoashii* from the Philippines. Habu (1961b) included two male specimens from Chuchih (竹崎), Chiayi County, Taiwan, collected by Y. Yano in 1937, in a series of the paratypes of *O. ishiii ishiii*. The diagnostic character of *Setophionea* is the prothorax with lateral long setae, but according to Baehr (1996), only a single character is insufficient to erect a new subgenus.

Jedlička (1940) listed *O. interstitialis* (as *Casnoidea*) from Taiwan, but this record probably refers to *O. ishiii ishiii*.

***Ophionea indica* (Thunberg, 1784)**

(Figs. 10-12)
Attelabus indicus Thunberg, 1784: 68.
Ophionea cyanocephala: Matsumura, 1910: 49, 82, fig. 5; Miwa 1931: 15.
Casnoidea indica: Jedlička, 1940: 18.
Ophionea (*Ophionea*) *indica*: Habu, 1961a: 296; 1961b: 113; 1967: 31; 1982: 96; Bousquet and Ito, 2003: 444.

Genitalia: Aedeagal median lobe elongate, somewhat depressed laterally, with 2 surface sclerites on right side of apical orifice (Fig. 11C, G: V-line; Fig. 12A: V-line); apical orifice turned to left in left-ventral view (Fig. 11A), with semisclerotized membrane (Fig. 11F: left arrow) and thin membranous part (Fig. 11F: right arrow) on left side; apical lobe short, peculiarly twisted at base and abruptly bent dorsad (Figs. 11D,

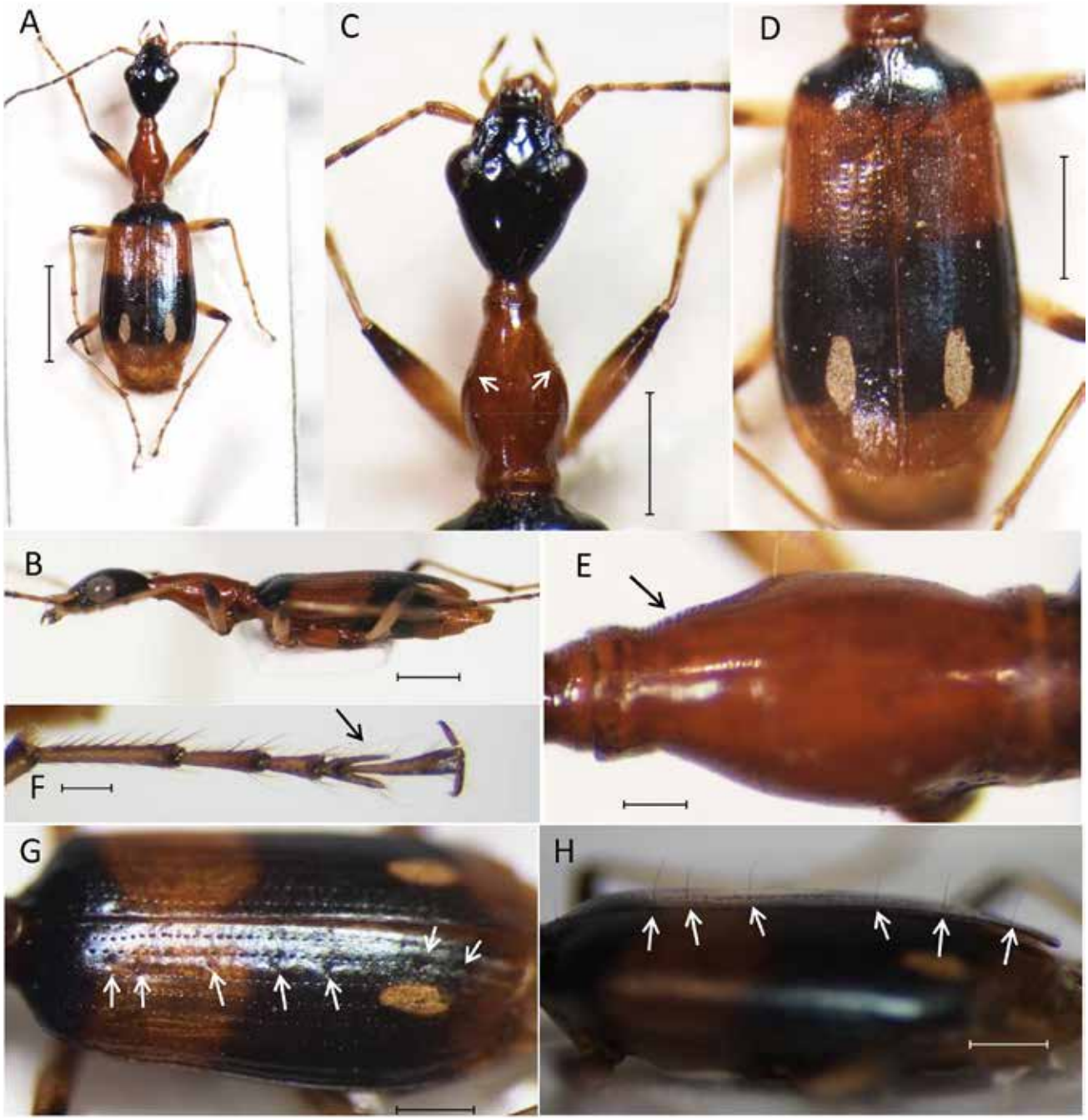

Fig. 7. *Ophionea ishiii ishiii*. A. ♂ from Yangmei, Taoyuan County, Taiwan. B. Same specimen in lateral view. C. Head and prothorax. Arrows indicate the positions of lateral setae. D. Elytra. E. Prothorax with faint wrinkles (arrow) near the apex. F. Left metatarsus with obviously bilobed tarsomere IV (arrow). G. Elytra. Arrows indicate discal setiferous pores on interval III of the left elytron. H. Elytra in dorsolateral view. Arrows indicate dorsal setae on interval III of the right elytron. Scales = 2 mm (A); 1 mm (B-D); 0.5 mm (G, H); and 0.2 mm (E, F).

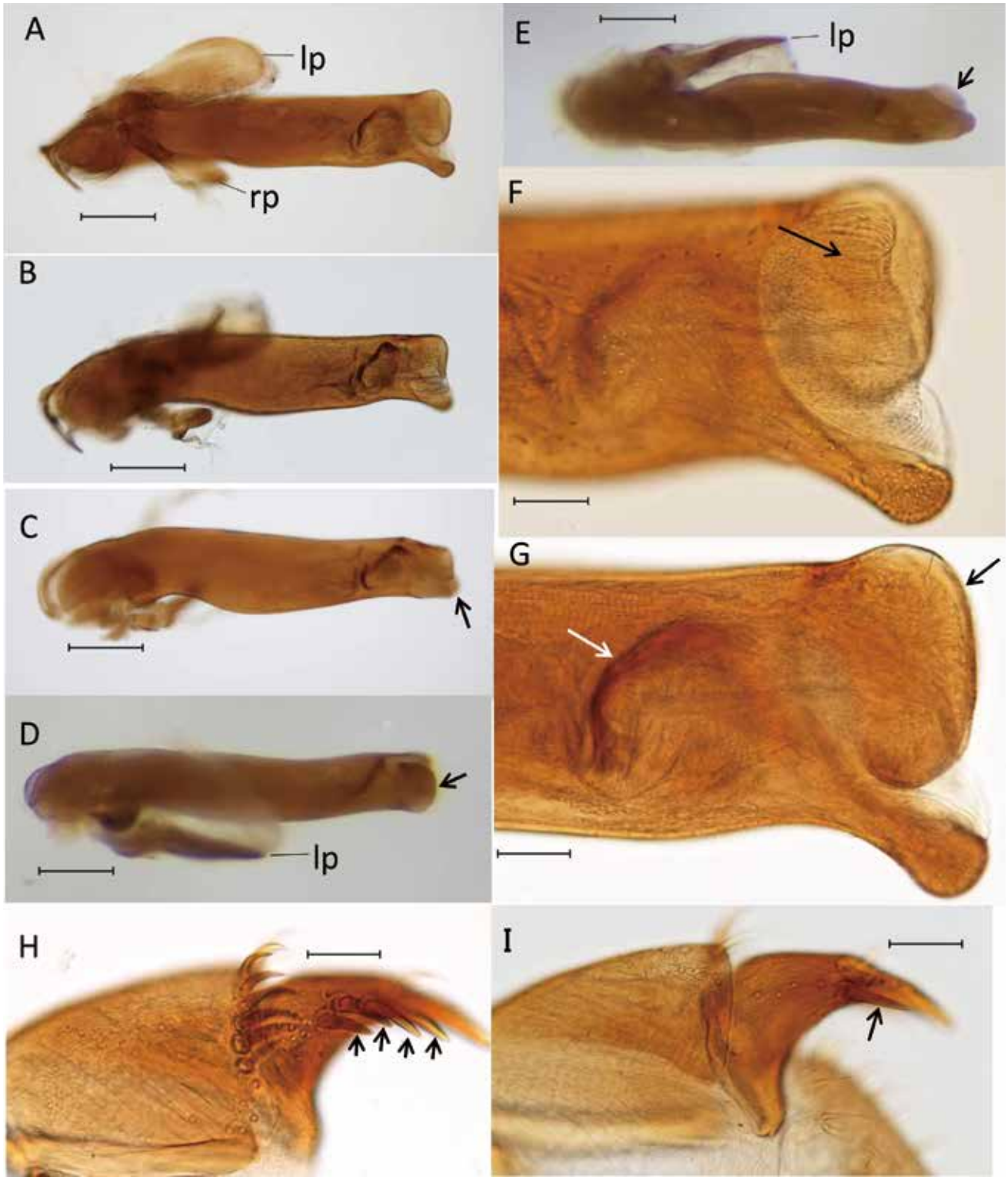

Fig. 8. Genitalia of *Ophionea ishiii ishiii*. A. Aedeagus in left-ventral view. The left paramere is indicated by "lp" and right one by "rp". B. Aedeagus in lateral view (turned slightly more to the right than in image A). C. Aedeagus in lateral view (turned slightly more to the right than in image B). The arrow indicates the position of the apical lobe (unfocused). D. Aedeagus in dorsolateral view. The arrow indicates a surface sclerite. E. Aedeagus in ventrolateral view. The arrow indicates the membranous part of the endophallus. F. Apical portion of the aedeagus, focusing on the finely striated membranous wall (arrow). G. Apical portion of the aedeagus, focusing on a semicircular sclerite (left arrow) and apical margin of the surface sclerite (right arrow). H. Right stylus in ventral view, showing the apical segment with four spines (arrows). I. Left stylus in dorsal view, showing the apical segment with one spine (arrow). Scales = 0.2 mm (A-E) and 0.05 mm (F-I).

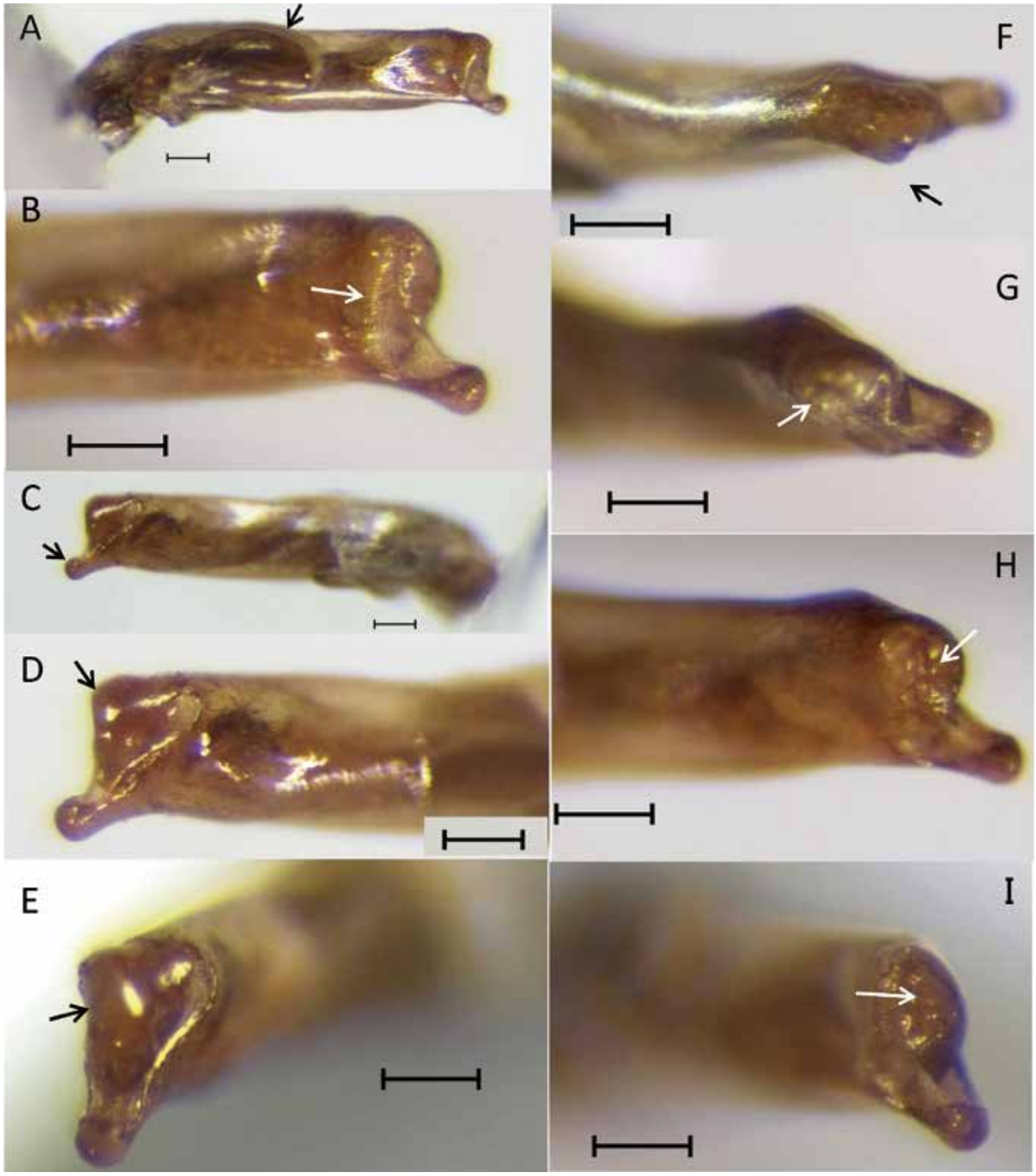

Fig. 9. Male genitalia (dry condition) of *Ophionea ishiii ishiii*. A. Aedeagus in left-lateral view. The arrow indicates the left paramere. B. Enlarged image of A, showing the finely striated membranous wall (arrow). C. Aedeagus in right-lateral view. The arrow indicates the apical lobe. D. Enlarged image of C. The arrow indicates a surface sclerite on the right side of the apical orifice. E. Apical portion of the aedeagus in right-frontal view. The arrow indicates a surface sclerite. F. Apical portion of the aedeagus in dorsal view. The arrow indicates the membranous part. G. Apical portion of the aedeagus from a similar aspect as in image F. The arrow indicates the membranous part. H. Apical portion of the aedeagus seen from the opposite side of image D. The arrow indicates the membranous part. I. Apical portion of the aedeagus seen from the opposite side of image E. The arrow indicates the membranous part. Scales = 0. 1 mm.

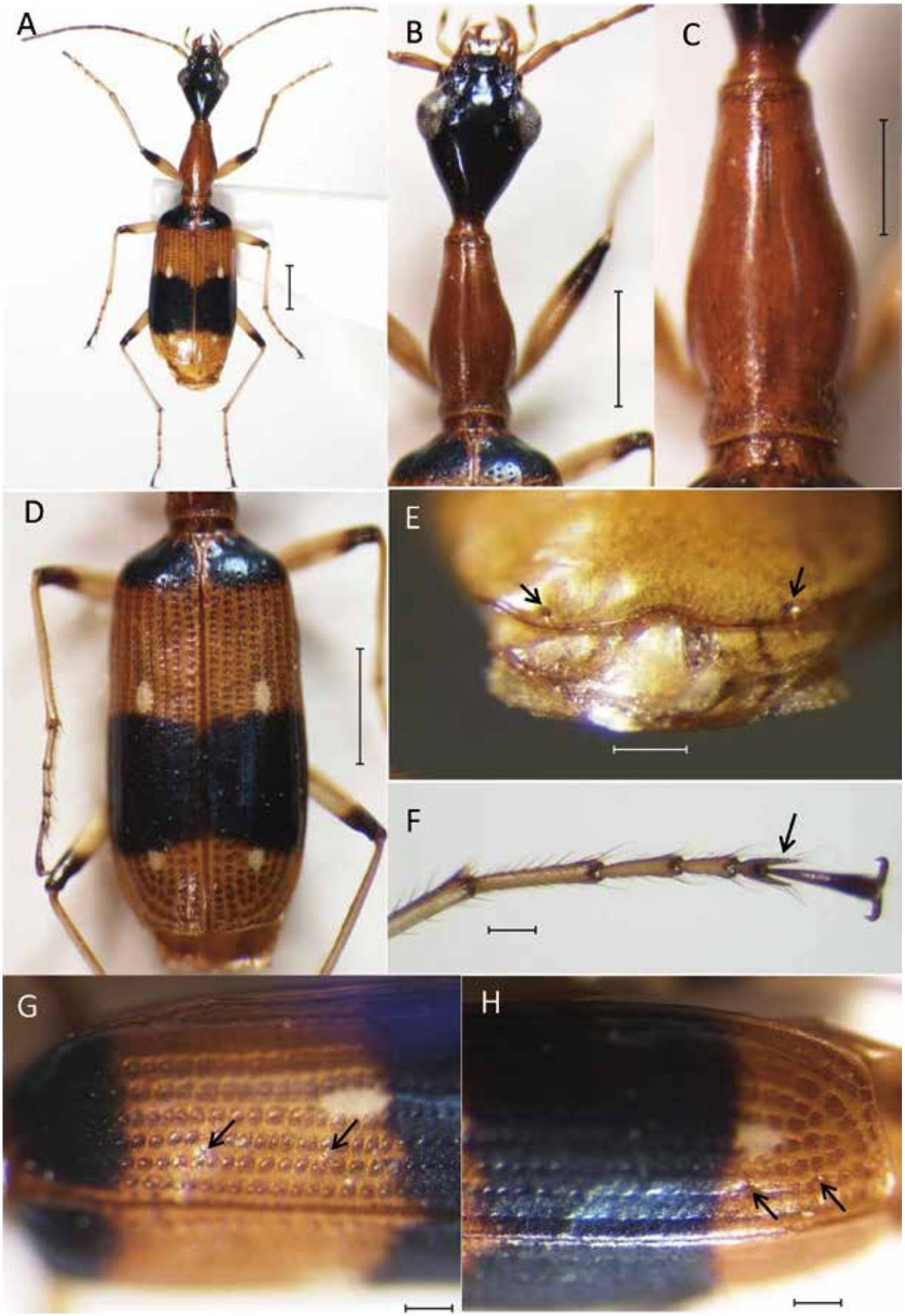

Fig. 10. *Ophionea indica*. A. ♂ from Yangmei, Taoyuan County, Taiwan. B. Head and prothorax. C. Prothorax. D. Elytra. E. Apical ventrite of ♂, showing emargination between two setal pores (arrows). F. Left metatarsus with obviously bilobed tarsomere IV (arrow). G. Anterior portion of the elytra. Arrows indicate discal pores on interval III of the right elytron. H. Posterior portion of the elytra. Arrows indicate discal pores on interval III of the right elytron. Scales = 2 mm (A); 1 mm (B, D); 0.5 mm (C); and 0.2 mm (E-H).

E, 12B); left paramere large, ear-shaped, right paramere smaller and narrower than left one (Fig. 11A).

Apical segment of each stylus fully curved externally, with 4 or 5 spines ventrally, and 1 spine dorsally (Fig. 12C, D); basal segment with 8~10 marginal spines ventrally.

Measurements (based on 3 specimens): Length 6.78~7.00 mm. Width 1.65~1.90 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.32~0.38: 0.62~0.65: 0.76~0.83: 0.80~0.83: 0.80~0.85: 0.80~0.85: 0.78~0.83: 0.73~0.76: 0.71~0.78: 0.90~1.02. HL/HW, 1.30~1.38. HW/FW, 1.71~1.86. Length of tempora/eye diameter, 1.51~1.61. PL/PW, 2.01~2.07. PL/EL, 0.45~0.48.

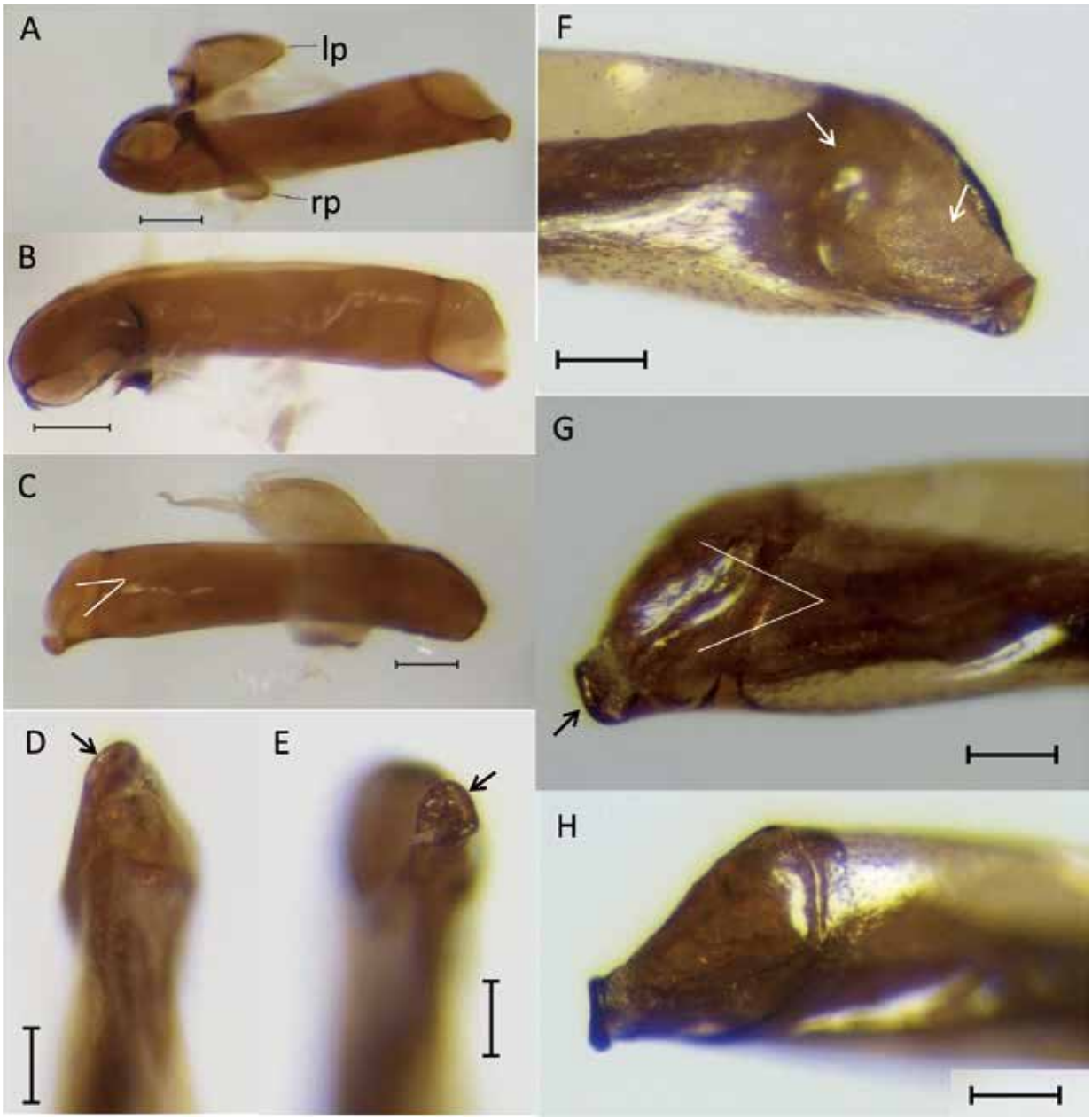

Fig. 11. Various aspects of the aedeagus of *Ophionea indica*. A. Left-ventral aspect. The left paramere is indicated by "lp" and the right one by "rp". B. Dorsolateral aspect. C. Dorsal aspect. The V-line indicates surface sclerites. D. Apical portion (dry condition) seen from the ventrolateral side, showing the apical lobe (arrow). E. Apical portion (dry condition) seen from the ventral side, showing the apical lobe (arrow). F. Apical portion (dry condition) in dorsolateral view, showing the semisclerotized membrane (left arrow) and thin membranous part (right arrow). G. Apical portion (dry condition) in right-lateral view, showing two surface sclerites (V-line) covering the right side of the apical orifice. The arrow indicates the apical lobe. H. Apical portion from a similar aspect as in image G. Scales = 0.2 mm (A-C) and 0.1 mm (D-H).

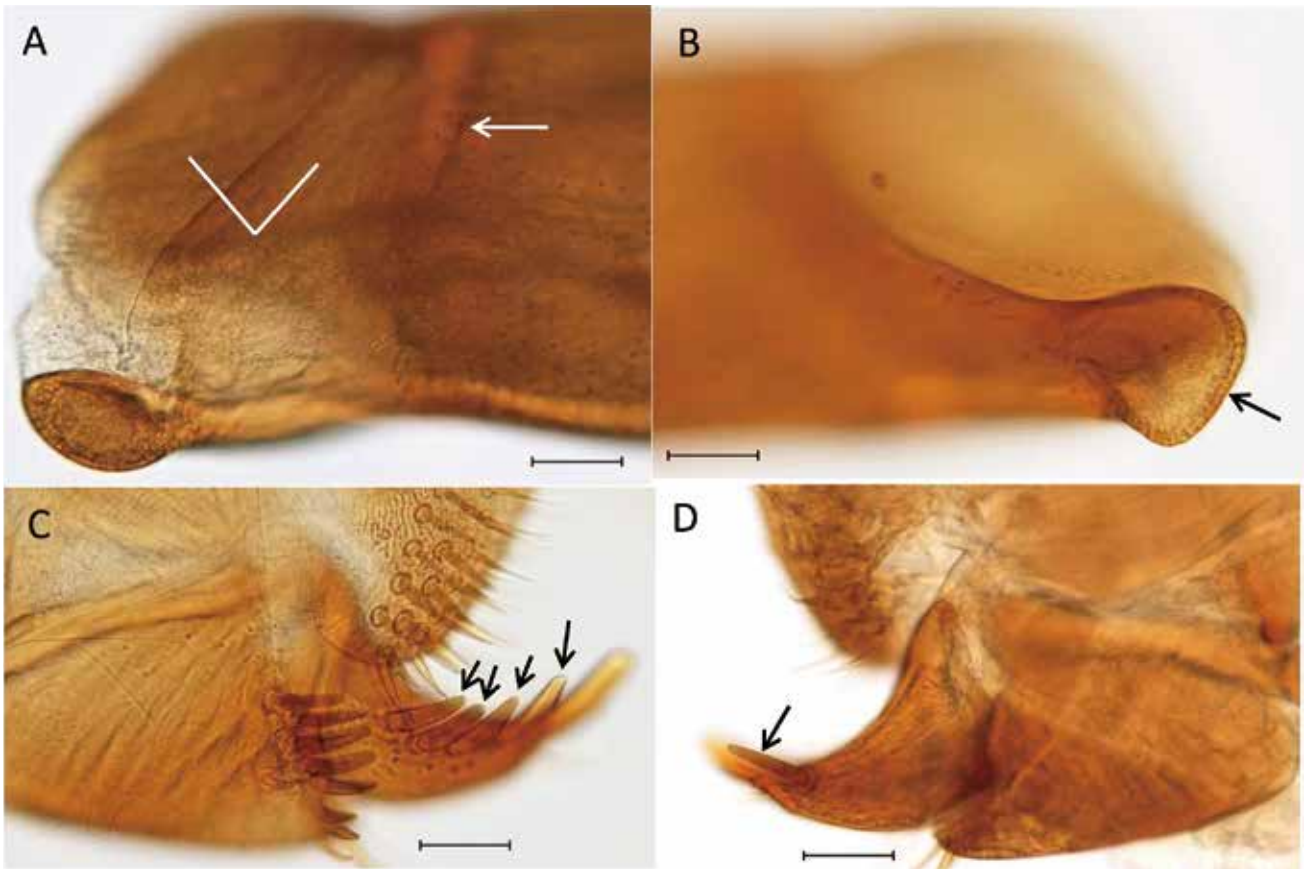

Fig. 12. Apical portion of aedeagus and stylus in *Ophionea indica*. A. Apical portion of the aedeagus in right-lateral view, showing two surface sclerites (V-line). The arrow indicates the margin of the aedeagal outer wall. B. Apical portion of the aedeagus in left-lateral view, focusing on the apical lobe (arrow). C. Left stylus in ventral view, showing the apical segment with four spines (arrows). D. Left stylus in dorsal view, showing the apical segment with one spine (arrow). Scales = 0.05 mm.

PW/HW, 0.68~0.73. PW/PA, 1.85~1.95. PW/PB, 1.27~1.32. PB/PA, 1.42~1.50. EW/PW, 2.11~2.24. EL/EW, 1.86~2.10.

Specimens examined: Taoyuan County, Yangmei [桃園縣, 楊梅]: 8 exs. 14-viii-2001, K. Terada & M.H. Hsu leg. (Terada-39); 5 exs. 16-viii-2001, K. Terada & M.H. Hsu leg. (Terada-40); 1 ex. 20-viii-2001, K. Terada & M.H. Hsu leg. (Terada-41); 1 ex. 4-ix-2001. K. Terada & M.H. Hsu leg. (Terada-45); 2 exs. 11-ix-2001, K. Terada & M.H. Hsu leg. (Terada-49); 2 exs. 8-x-2001, K. Terada & M.H. Hsu leg. (Terada-55); 4 exs. 2-xi-2001, K. Terada & M.H. Hsu leg. (Terada-62); 6 exs. 5-xi-2001, K. Terada & M.H. Hsu leg. (Terada-63); 2 exs. 21-iii-2002, M.H. Hsu & Y.L. Yang leg. (Terada-96). Taoyuan County, Tahsi, Yuehmei [桃園縣, 大溪, 月眉]: 2 exs. 6-xi-2001, K. Terada & M.H. Hsu leg. (Terada-47). Taoyuan County, Luchu, Kengtsu [桃園縣, 蘆竹, 坑子]: 7 exs. 6-iv-2002 (Terada-100); 5 exs. 13-iv-2001, M.H. Hsu & Y.L. Yang leg. (Terada-101). Pingtung County, Wanluan, Chiapin River [屏東縣, 萬巒, 佳平溪]: 1 ex. 11-xi-2001, K. Terada & M.H. Hsu leg. (Terada-68). Deposited in NMNS and KTHJ. The above specimens were collected by a light trap set near ponds and rivers in cultivated fields.

Remarks: This species resembles *O. ishiii ishiii* in color pattern, but is easily distinguished from the latter by the characters mentioned in the key. Previously known localities of this species in Taiwan are Taipei, Wushe (霧社), Taichung, and Pingtung (as 阿猴) (Matsumura 1910, Miwa 1931).

Mimocolliuris (*Paramimocolliuris*) *insulana* Habu, 1979 [new record for Taiwan]

(Figs. 13-15)

Mimocolliuris (*Paramimocolliuris*) *insulana* Habu, 1979: 76.

Genitalia: Aedeagal median lobe elongate, subcylindrical, almost straight in lateral view (Fig. 15A), gently curved to right side in dorsal

view (Fig. 15B), with distinct concavity on left ventral side behind base (Fig. 15A: arrow); apical lobe protruding, well rounded at apex (Fig. 15D); endophallic membrane striated (Fig. 15C); left paramere large, ear-shaped; right paramere smaller and narrower than left one (Fig. 15B).

Apical segment of each stylus fully curved externally, with 2 spines ventrally, and 1 spine dorsally (Fig. 15E, F); basal segment with 5~7 marginal spines ventrally.

Measurements (based on 4 specimens): Length 4.81~6.08 mm. Width 1.21~1.66 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.30~0.36: 0.58~0.60: 0.82~0.87: 0.78~0.87: 0.78~0.87: 0.78~0.89: 0.75~0.89: 0.75~0.84: 0.75~0.83: 0.95~1.02.

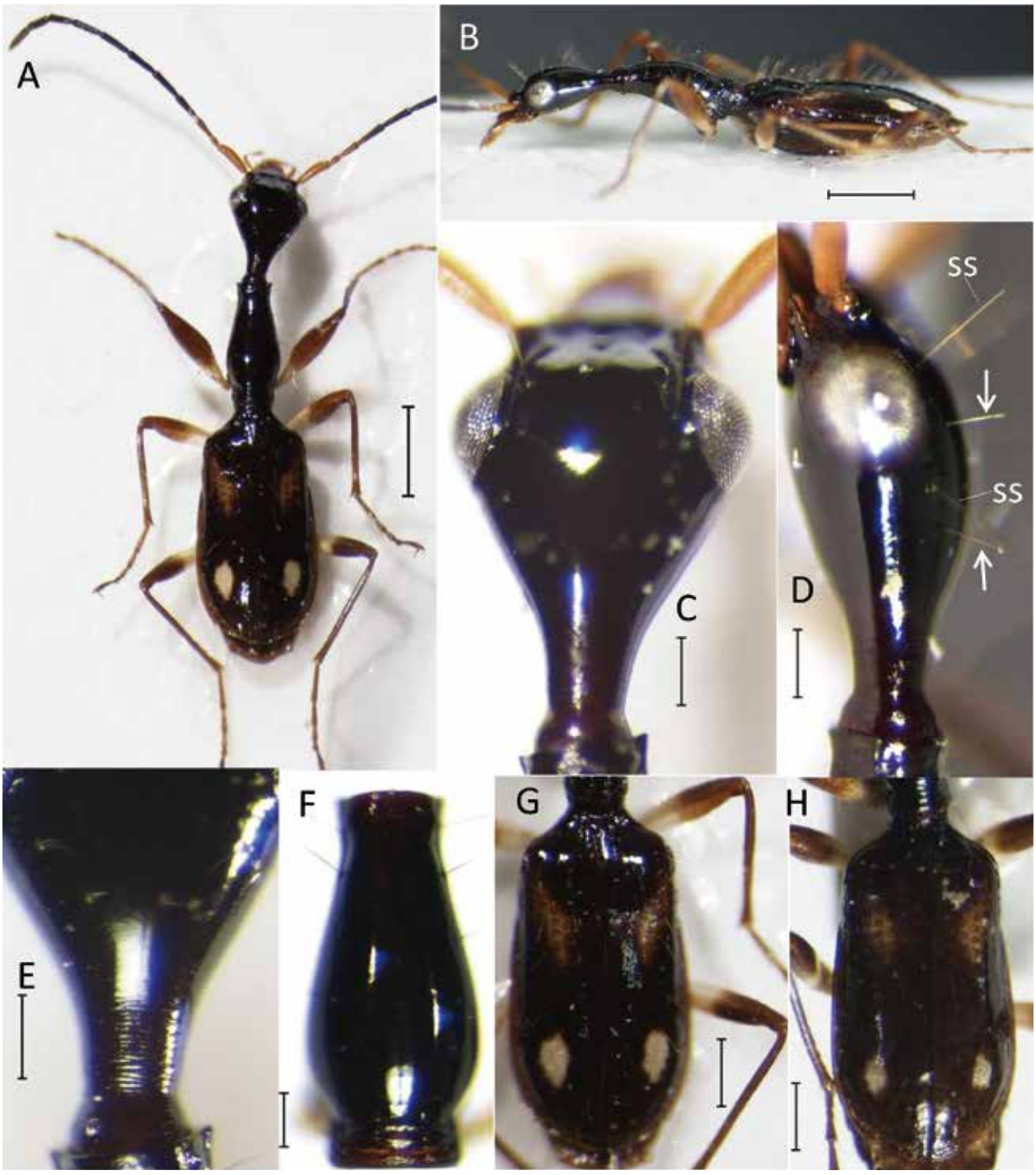

Fig. 13. *Mimocolliuris insulana*. A. ♂ from Yangmei, Taoyuan County, Taiwan. B. Same specimen in lateral view. C. Head. D. Head in lateral view, showing supraorbital setae (ss) and two additional setae (arrows) on the left side. E. Head in dorsal view, showing the neck with transverse wrinkles. F. Prothorax. G. Elytra with larger spots. H. Elytra with smaller spots. Scales = 1 mm (A, B); 0.5 mm (G, H); and 0.2 mm (C-F).

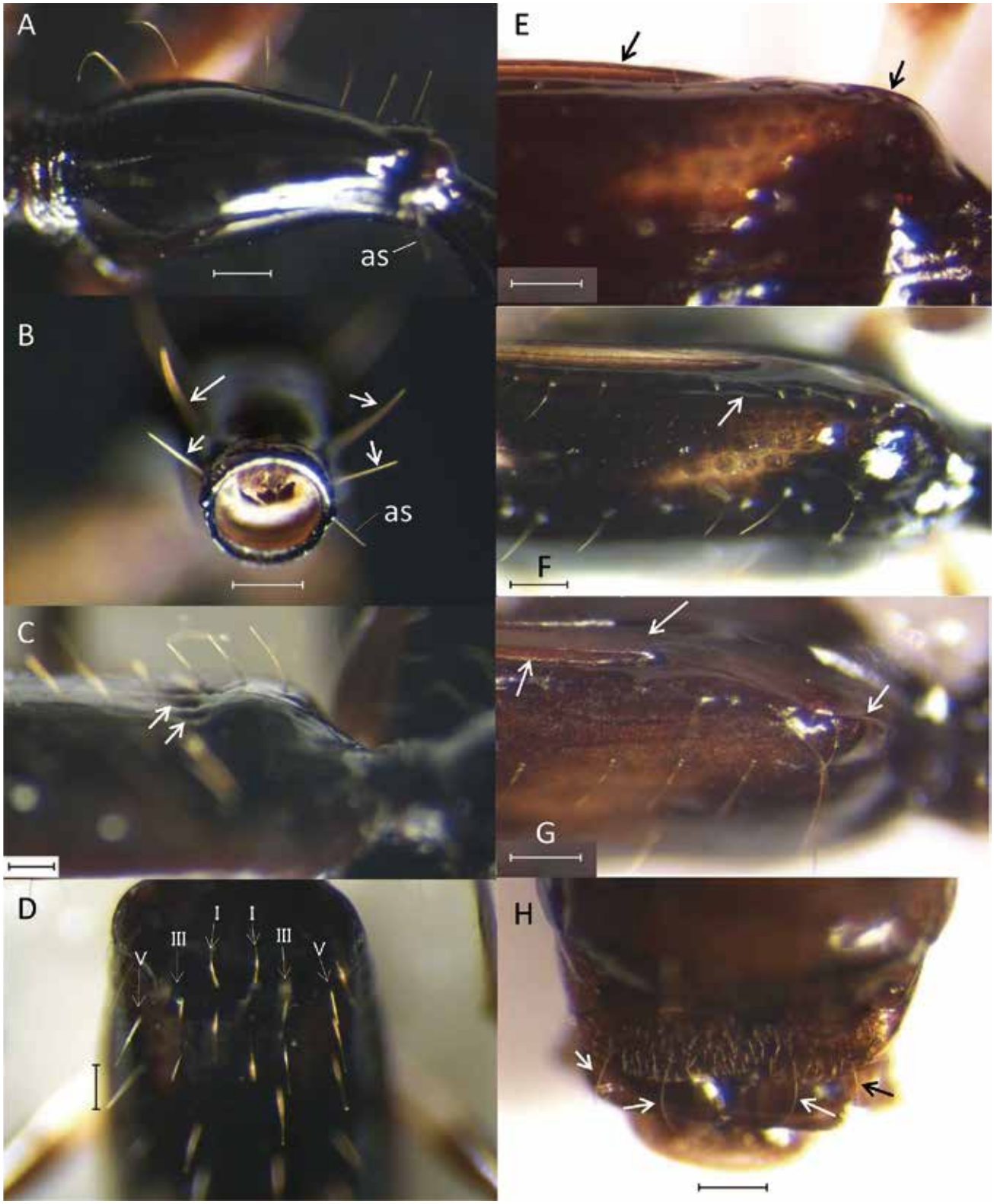

Fig. 14. *Mimocolliuris insulana*. A. Prothorax in right-lateral view, showing a row of setae on the left side. The apical seta is indicated by "as". B. Prothorax in frontal view (head removed), showing lateral setae (arrows) on each side and an apical seta (as) on the left side. The apical seta on the right side is missing. C. Basal portion of the elytra in dorsolateral view, showing the hump and large punctures (arrows) just behind the hump. D. Elytra with three rows of setae (arrows) on each elytron. "I", "III", and "V" indicate elytral intervals. E. Anterior portion of the left elytron, showing the lateral (left arrow) and humeral (right arrow) borders. F. Anterior portion of the left elytron in dorsolateral view, showing deep stria VIII (arrow). G. Anterior portion of the left elytron in lateral view, showing the lateral groove (left arrow), epipleuron (mid arrow), and humeral border (right arrow). H. Abdomen of ♀, showing an apical ventrite with two setae (arrows) on each side and short pubescence. Scales = 0.2 mm.

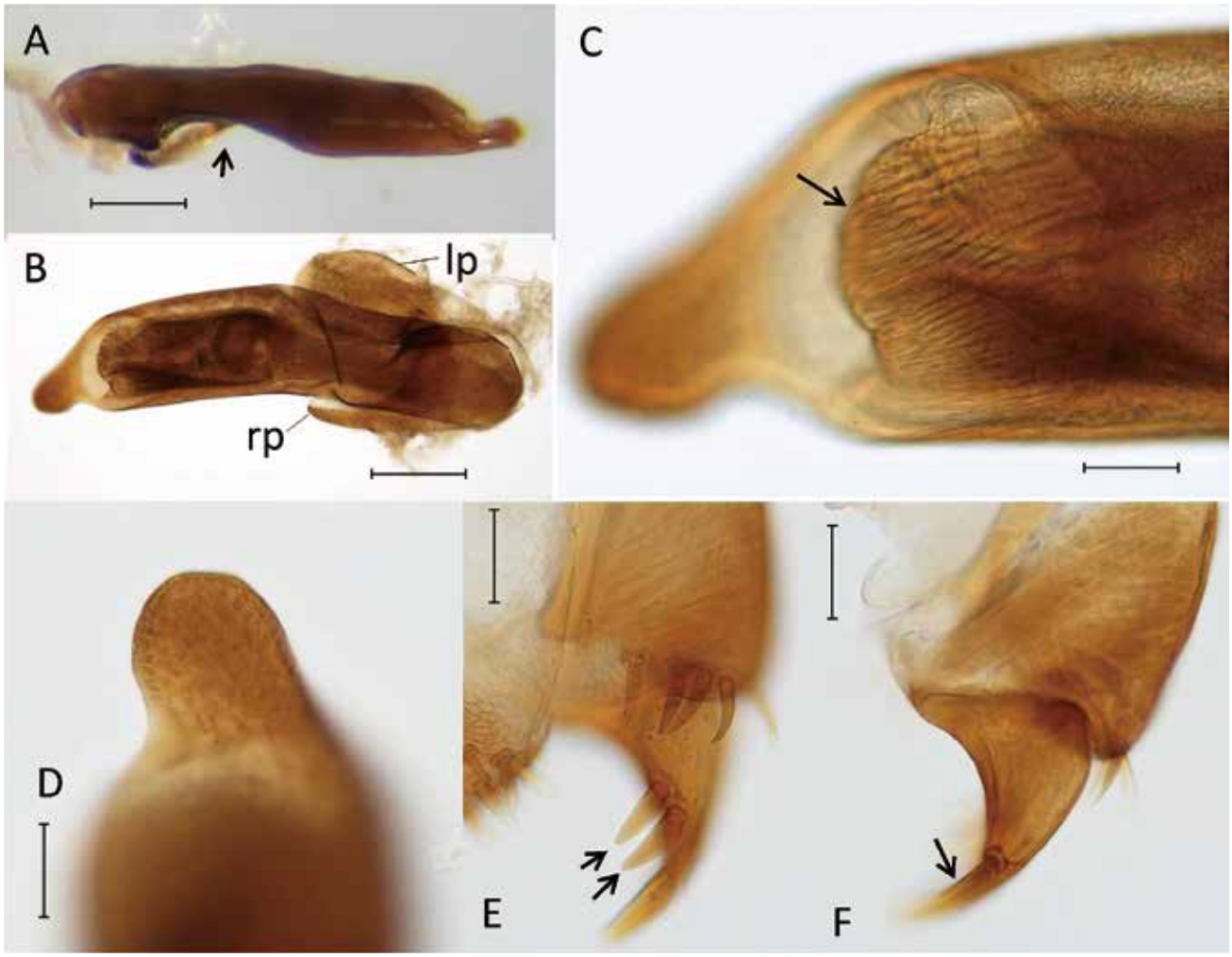

Fig. 15. Genitalia of *Mimocolliuris insulana*. A. Aedeagus in left-lateral view (left paramere removed). The arrow indicates a concavity on the ventral side behind the base. B. Aedeagus in dorsal view. The left paramere is indicated by "lp" and the right one by "rp". C. Apical portion of the aedeagus in dorsal view, showing the striated endophallic membrane (arrow). D. Apical lobe of the aedeagus seen from the dorsal side. E. Right stylus in ventral view, showing the apical segment with two spines (arrows). F. Left stylus in dorsal view, showing the apical segment with one spine (arrow). Scales = 0.2 mm (A, B) and 0.05 mm (C-F).

HL/HW, 1.35~1.48. HW/FW, 1.54~1.65. Length of tempora/eye diameter, 1.76~1.91. PL/PW, 2.10~2.21. PL/EL, 0.51~0.55. PW/HW, 0.65~0.70. PW/PA, 1.51~1.65. PW/PB, 1.24~1.32. PB/PA, 1.17~1.27. EW/PW, 2.13~2.35. EL/EW, 1.73~1.88.

Specimens examined: New Taipei City, Kungliao, Lungmen [新北市, 貢寮, 龍門]: 16 exs. 14-iii-2002, K. Terada & M.H. Hsu leg. (Terada-94). Taoyuan County, Yangmei [桃園縣, 楊梅]: 2 exs. 5-ix-2001, K. Terada & M.H. Hsu leg. (Terada-46); 15 exs. 11-ix-2001, K. Terada & M.H. Hsu leg. (Terada-49); 3 exs. 5-xi-2001, K. Terada & M.H. Hsu leg. (Terada-63). Deposited in NMNS and KTHJ. The above specimens were found among grasses of abandoned agricultural fields.

Remarks: In addition to the characters mentioned in the key, the following characters of this species are also worthy of note: the neck is strongly narrowed and evidently wrinkled before the neck constriction (Fig. 13E); the prothoracic setal row on each lateral side usually includes seven setae, of which the apical seta is shorter than the others and turns downward (Fig. 14A, B); the elytral surface is somewhat swollen at the base and has large punctures just behind the hump (Fig. 14C); the apical ventrite in females is pubescent and has two apical setae on each side (Fig. 14H), whereas in males it is glabrous except for one apical seta on each side; the posterior spots on the elytra are usually whitish, but sometimes dirty-yellowish; and those spots vary in size among individuals (Fig. 13G, H).

In *M. insulana*, the head has several additional setae in addition to the regular supraorbital setae (Fig. 13D), the prothorax lacks a long seta on each side of the base, and elytral stria VIII is very deep (Fig. 14F: arrow). Habu (1979) established a new subgenus *Paramimocolliuris* Habu based on these characters. One new species from China, *M. sinuatiphallus* Zhao et Tian, 2010, was recently added to the subgenus. It resembles *M. insulana* in the elytral pattern, but differs from the latter by having a longer prothorax with more-numerous setae and a strongly sinuate apical lobe of the aedeagus (Zhao and Tian, 2010).

In the subgenus *Paramimocolliuris*, an anterior patch and posterior spot are visible on each elytron. A similar elytral pattern is shown in *M. pilifera* (Nietner, 1858) from Sri Lanka (Ceylon), *M. pusilla* (Andrewes, 1930) from Borneo, and *M. nepalensis* (Jedlička, 1965) from Nepal. These three species actually resemble members of *Paramimocolliuris* because they have setal rows on elytral intervals I, III, and V, and also have a few additional setae on the head (except for *M. pilifera*). On the head of *M. nepalensis*, Jedlička (1965, fig. 12) just mentions "glatt", but his line drawing clearly shows three pores on each side of the head, which suggests the existence of a few additional setae in addition to the regular supraorbital setae. On the other hand, Nietner (1858) mentions nothing about the setae on the head of *M. pilifera*.

Odacantha (*Heliocasnonia*) *metallica* (Fairmaire, 1889)

(Figs. 16, 17)

Casnonia metallica Fairmaire, 1889: 334.

Colliuris (*Heliocasnonia*) *metallica*: Jedlička, 1963: 497.

Odacantha (*Heliocasnonia*) *metallica*: Bousquet and Ito, 2003: 444.

Genitalia: Aedeagal median lobe deeply sclerotized externally, elongate, moderately arcuate in lateral view (Fig. 17A); apical lobe shortly protruding, rounded at apex (Fig. 17C); endophallic membrane spiny and scaly (Fig. 17C); left paramere large, ear-shaped, right paramere smaller and narrower than left one (Fig. 17B).

Apical segment of each stylus fully curved externally, with 2 spines ventrally, and 1 spine dorsally (Fig. 17D, E); basal segment with 7~9 marginal spines ventrally.

Measurements (based on 4 specimens): Length 5.57~7.21 mm. Width 1.73~2.17 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.45~0.48: 0.87~0.88: 0.91~0.94: 0.94~0.98: 0.94~0.97: 0.93~0.97: 0.88~0.93: 0.88~0.93: 0.77~0.80: 1.03~1.11. HL/HW, 1.18~1.20. HW/FW, 1.53~1.72. Length of tempora/eye diameter, 1.38~1.59. PL/PW, 1.32~1.37. PL/EL, 0.33~0.36. PW/HW, 0.81~0.84. PW/PA, 1.73~1.78. PW/PB, 1.28~1.38. PB/PA, 1.27~1.35. EW/PW, 2.05~2.14. EL/EW, 1.81~1.86.

Specimens examined: New Taipei City, Sanchih [新北市, 三芝]: 4 exs. 24-v-2001, K. Terada & M.H. Hsu leg. (Terada-12); 28 exs. 26-v-2001, K. Terada & M.H. Hsu leg. (Terada-13); 2 exs. 7-ix-2001, K. Terada & M.H. Hsu leg. (Terada-47). New Taipei City, Fulung [新北市, 福隆]: 2 exs.13-vi-2001, K. Terada leg. (Terada-18); 10 exs. 12-x-2001, K. Terada leg. (Terada-56); 12 exs. 14-iii-2002, K. Terada & M.H. Hsu leg. (Terada-94). New Taipei City, Kungliao, Lungmen [新北市, 貢寮, 龍門]: 9 exs. 14-iii-2002, K. Terada & M.H. Hsu leg. (Terada-94). Taoyuan County, Yangmei [桃園縣, 楊梅]: 1 ex. 16-viii-2001, K. Terada & M.H. Hsu leg. (Terada-40); 3 exs. 20-viii-2001, K. Terada & M.H. Hsu leg. (Terada-41); 2 exs. 22-viii-2001, K. Terada & M.H. Hsu leg. (Terada-42); 4 exs. 4-ix-2001, K. Terada & M.H. Hsu leg. (Terada-45); 32 exs. 5-ix-2001, K. Terada & M.H. Hsu leg. (Terada-46); 5 exs. 11-ix-2001 (Terada-49); 13 exs. 14-ix-2001 (Terada-51); 2 exs. 3-x-2001 (Terada-54); 8-x-2001, K. Terada & M.H. Hsu leg. (Terada-55); 2 exs. 26-x-2001, K. Terada & M.H. Hsu leg. (Terada-58); 8 exs. 5-xi-2001, K. Terada & M.H. Hsu leg. (Terada-63); 3 exs. 21-ii-2002, K. Terada & M.H. Hsu leg. (Terada-87). Taoyuan County, Luchu, Kengtsu [桃園縣, 蘆竹, 坑子]: 5 exs. 5-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-99); 4 exs. 6-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-100); 4 exs. 13-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-101); 18-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-102). Yilan County, Nanao, Tawan River [宜蘭縣, 南澳, 大彎溪]: 1 ex. 13-ii-2002, K. Terada leg. (Terada-84); 2 exs. 2-iii-2002, K. Terada leg. (Terada-89); 1 ex. 8-iii-2002, K. Terada leg. (Terada-91); 1 ex. 20-vi-2002, M.H. Hsu & Y.L. Yang leg. (Terada-103). Pingtung County, Wanluan, Chiaping River [屏東縣, 萬巒, 佳平溪]: 12 exs. 10-xi-2001, K. Terada & M.H. Hsu leg. (Terada-67); 10 exs. 24-xi-2001, K.

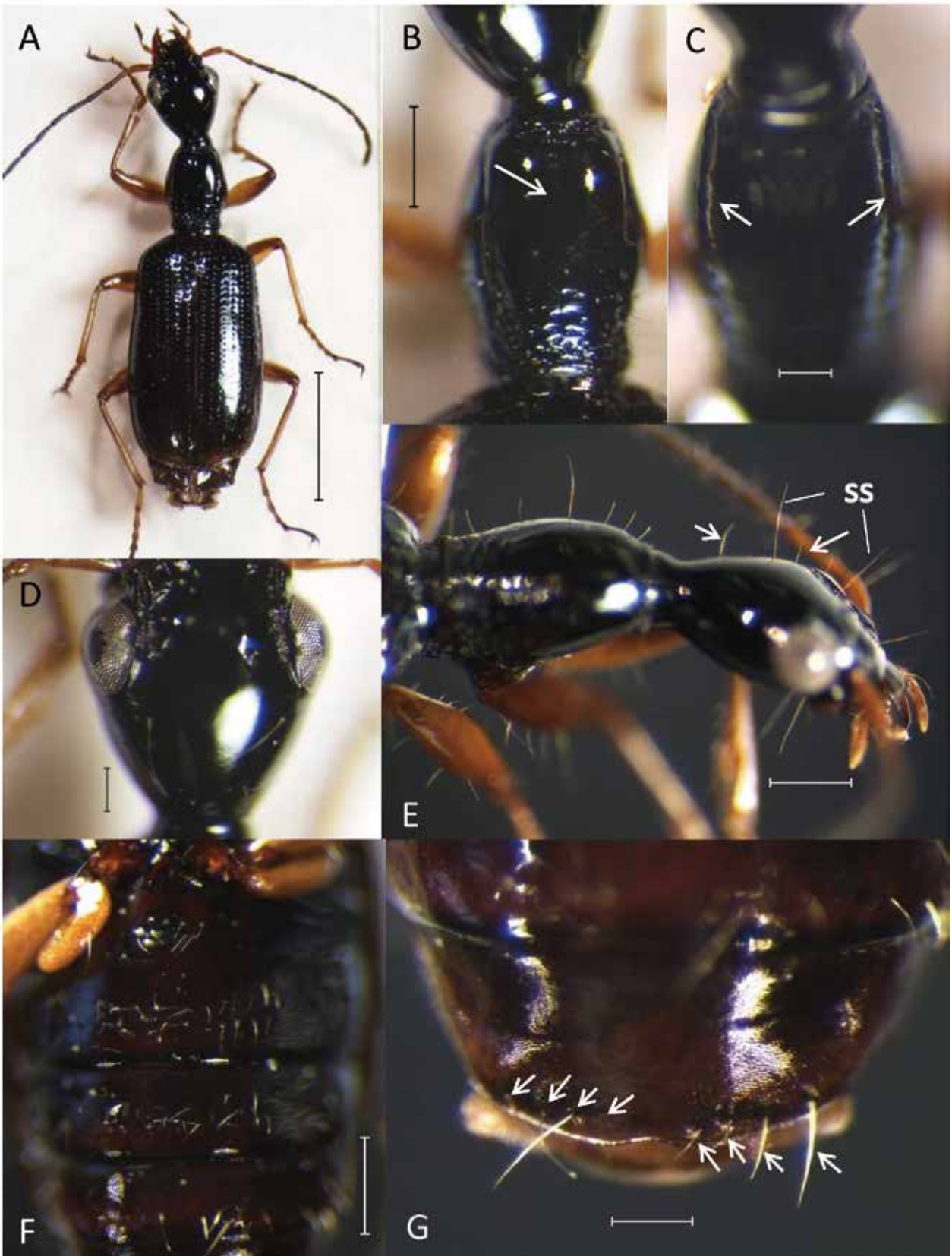

Fig. 16. *Odacantha metallica*. A. ♀ from Nanao, Yilan County, Taiwan. B. Prothorax in dorsal view, showing the glabrous surface of the disc (arrow). C. Prothorax in dorsal view (slightly inclined toward the base), showing lateral grooves (arrows). D. Head with a glabrous vertex. E. Head and prothorax in dorsolateral view, showing a row of setae on the left side. Supraorbital setae are indicated by "ss". Arrows indicate additional setae on the head. F. Abdomen, showing pubescence on the ventrites. G. Abdomen of ♂, showing an apical ventrite with four setae on each side (arrows). Scales = 2 mm (A); 0.5 mm (D-F); and 0.2 mm (B, C, G).

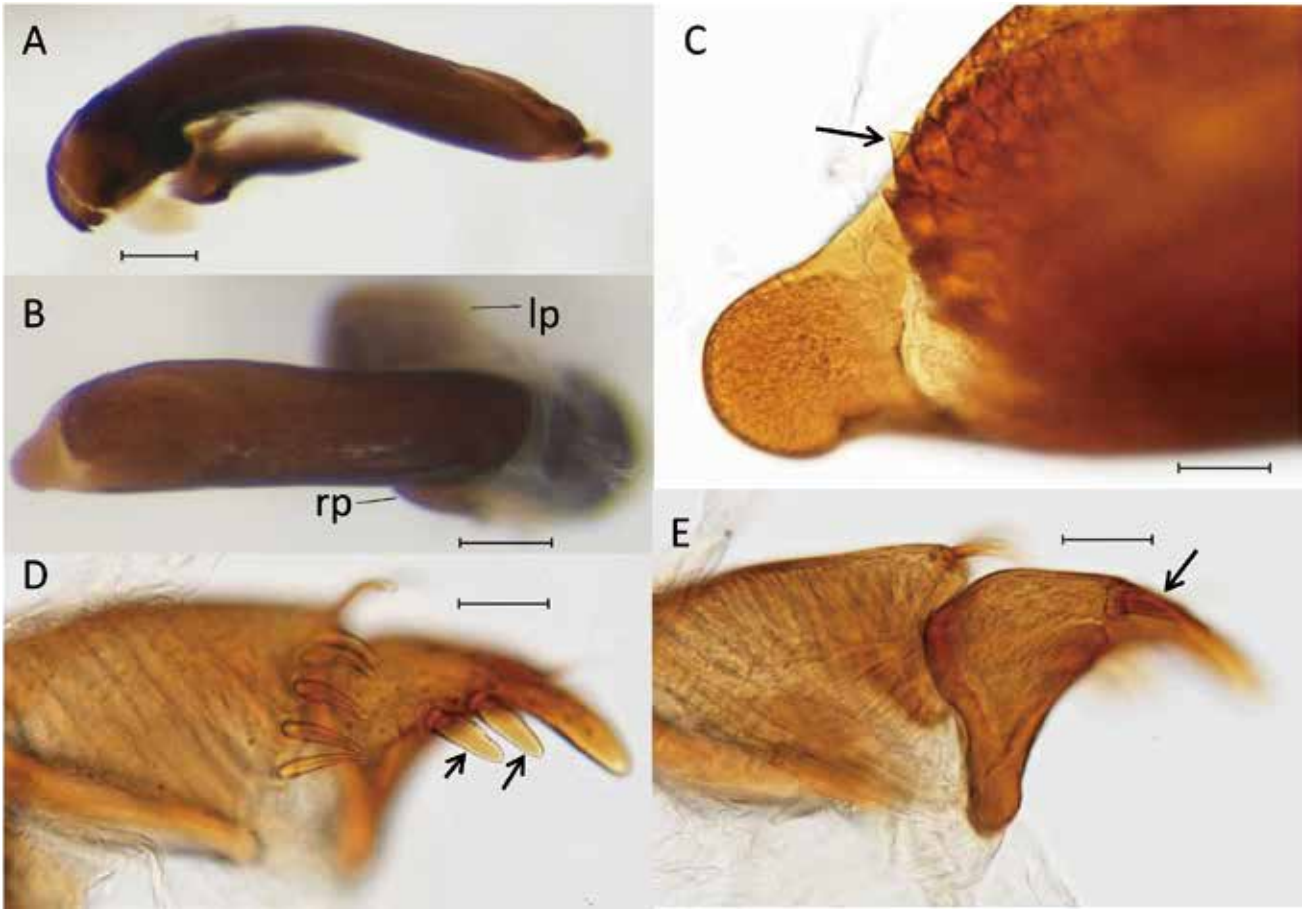

Fig. 17. Genitalia of *Odacantha metallica*. A. Aedeagus in left-lateral view. B. Aedeagus in dorsal view. The left paramere is indicated by "lp" and the right one by "rp". C. Apical portion of the aedeagus in dorsal view, showing the apical lobe and spinous membrane of the endophallus (arrow). D. Right stylus in ventral view, showing the apical segment with two spines (arrows). E. Left stylus in dorsal view, showing the apical segment with one spine (arrow). Scales = 0.2 mm (A, B) and 0.05 mm (C-E).

Terada & M.H. Hsu leg. (Terada-70). Deposited in NMNS and KTHJ. The above specimens were collected in grassy vegetation of wet places including rivers and ponds.

Remarks: This is the most common species among the Taiwanese odacanthine carabid beetles. It strongly resembles *O. aegrota* (Bates, 1883) distributed in Japan, from which it is distinguished by the dark-blue metallic luster on the dorsal surface and slightly more-conspicuous punctures on the elytra.

Jedlička (1963) included Taiwan in the distribution range of *O. metallica*, but did not indicate any specimens.

***Eucolliuris fuscipennis* (Chaudoir, 1850)**

(Figs. 18, 19)

Casnonia fuscipennis Chaudoir, 1850: 26.
Odacantha (*Casnonia*) *fuscipennis*: Andrewes, 1929: 310.
Odacantha fuscipennis: Andrewes, 1933: 358.
Colliuris (*Eucolliuris*) *fuscipennis fuscipennis*: Liebke, 1938: 65.
Eucolliuris fuscipennis fuscipennis: Habu, 1961a: 294; 1961b: 96; 1967: 17.
Colliuris (*Eucolliuris*) *fuscipennis*: Jedlička, 1963: 494.
Eucolliuris fuscipennis: Habu, 1982: 88; Bousquet and Ito, 2003: 443.

Genitalia: Aedeagal median lobe deeply sclerotized externally, elongate, curved downward at base (Fig. 19A), curved to right side at apex (Fig. 19B); apical lobe somewhat protruding, flattened, gently rounded at apex (Fig. 19C); left paramere large, ear-shaped, and right paramere smaller and narrower than left one (Fig. 19B).

Apical segment of each stylus fully curved externally, with 2 spines ventrally, and 1 spine dorsally (Fig. 19D, E); basal segment with 7 or 8 marginal spines ventrally.

Measurements (based on 3 specimens): Length 5.90~6.63 mm. Width 1.74~2.13 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.44~0.45: 0.79~0.84: 0.82~0.93: 0.88~0.93: 0.90~0.96: 0.93~0.96: 0.87~0.90: 0.87~0.90: 0.78~0.82: 1.09~1.11. HL/HW, 1.09~1.13. HW/FW, 1.63~1.80. Length of tempora/eye diameter, 1.27~1.37. PL/PW, 1.31~1.39. PL/EL, 0.36~0.37. PW/HW, 0.81~0.84. PW/PA, 1.66~1.79. PW/PB, 1.27~1.32. PB/PA, 1.25~1.40. EW/PW, 1.95~2.08. EL/EW, 1.74~1.86.

Specimens examined: Taoyuan County, Yangmei [桃園縣, 楊梅]: 1 ex. 28-vii-2001, K. Terada & M.H. Hsu leg. (Terada-34); 1 ex. 16-viii-2001, K. Terada & M.H. Hsu leg. (Terada-40); 1 ex. 28-viii-2001, K. Terada & M.H. Hsu leg. (Terada-44); 4 exs. 11-ix-2001, K. Terada & M.H. Hsu leg. (Terada-49); 2 exs. 14-ix-2001, K. Terada & M.H. Hsu leg. (Terada-51); 2 exs. 3-x-2001, K. Terada & M.H. Hsu leg. (Terada-54); 1 ex. 8-x-2001, K. Terada & M.H. Hsu leg. (Terada-55); 2 exs. 21-iii-2002. M.H. Hsu & Y.L. Yang leg. (Terada-96); 7 exs. 18-vi-2002, M.H. Hsu & Y.L. Yang leg. (Terada-103). Taoyuan County, Luchu, Kengtsu [桃園縣, 蘆竹, 坑子]: 1 ex. 13-iv-2002, M.H. Hsu & Y.L. Yang leg. (Terada-101). Deposited in NMNS and KTHJ. The above specimens were collected in grassy vegetation around cultivated fields and

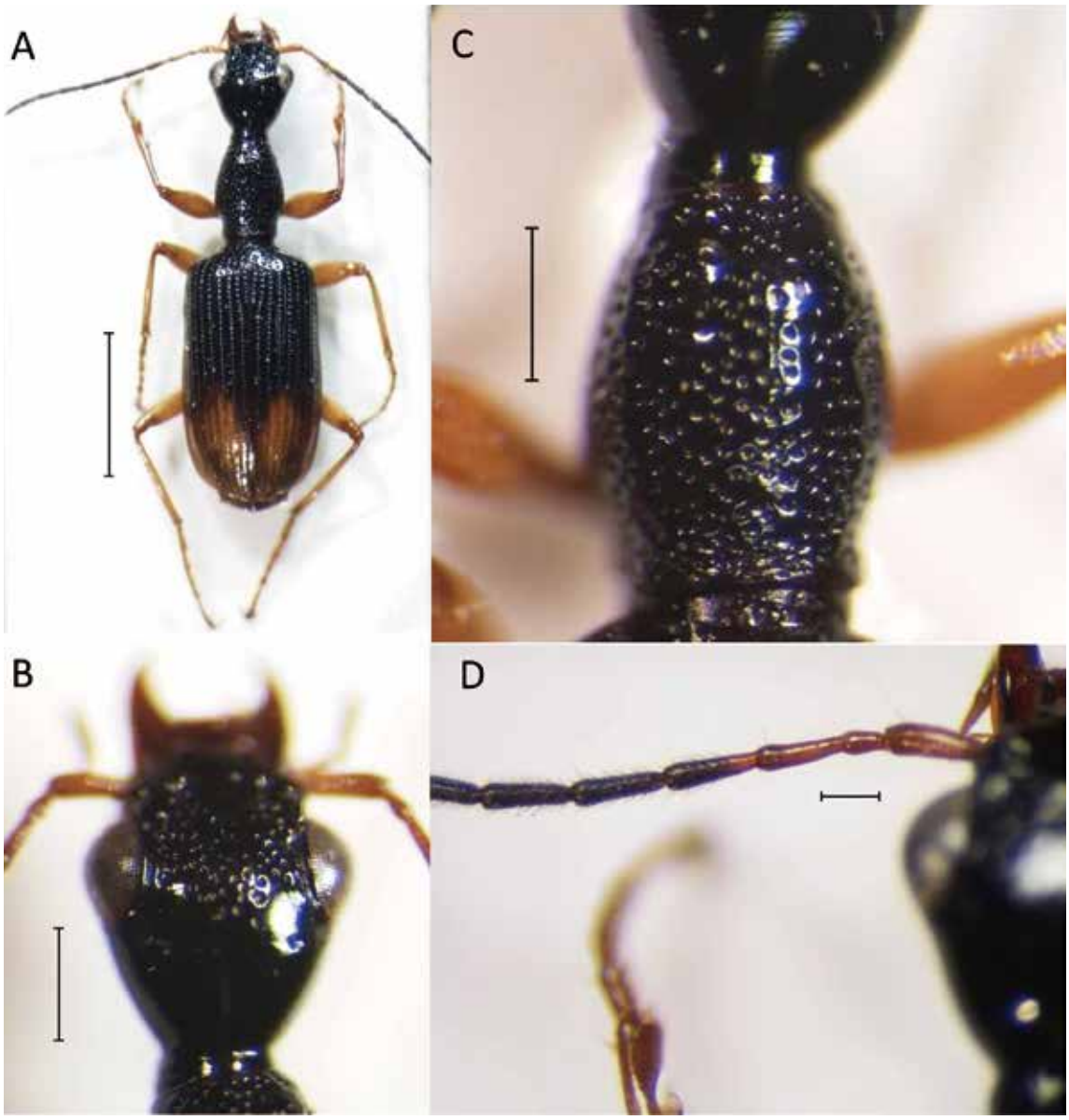

Fig. 18. *Eucolliuris fuscipennis*. A. ♂ from Yangmei, Taoyuan County, Taiwan. B. Head. C. Prothorax. D. Left antenna with antennomeres I~III lighter in color than the rest of the antenna. Scales = 2 mm (A); 0.5 mm (B, C); and 0.2 mm (D).

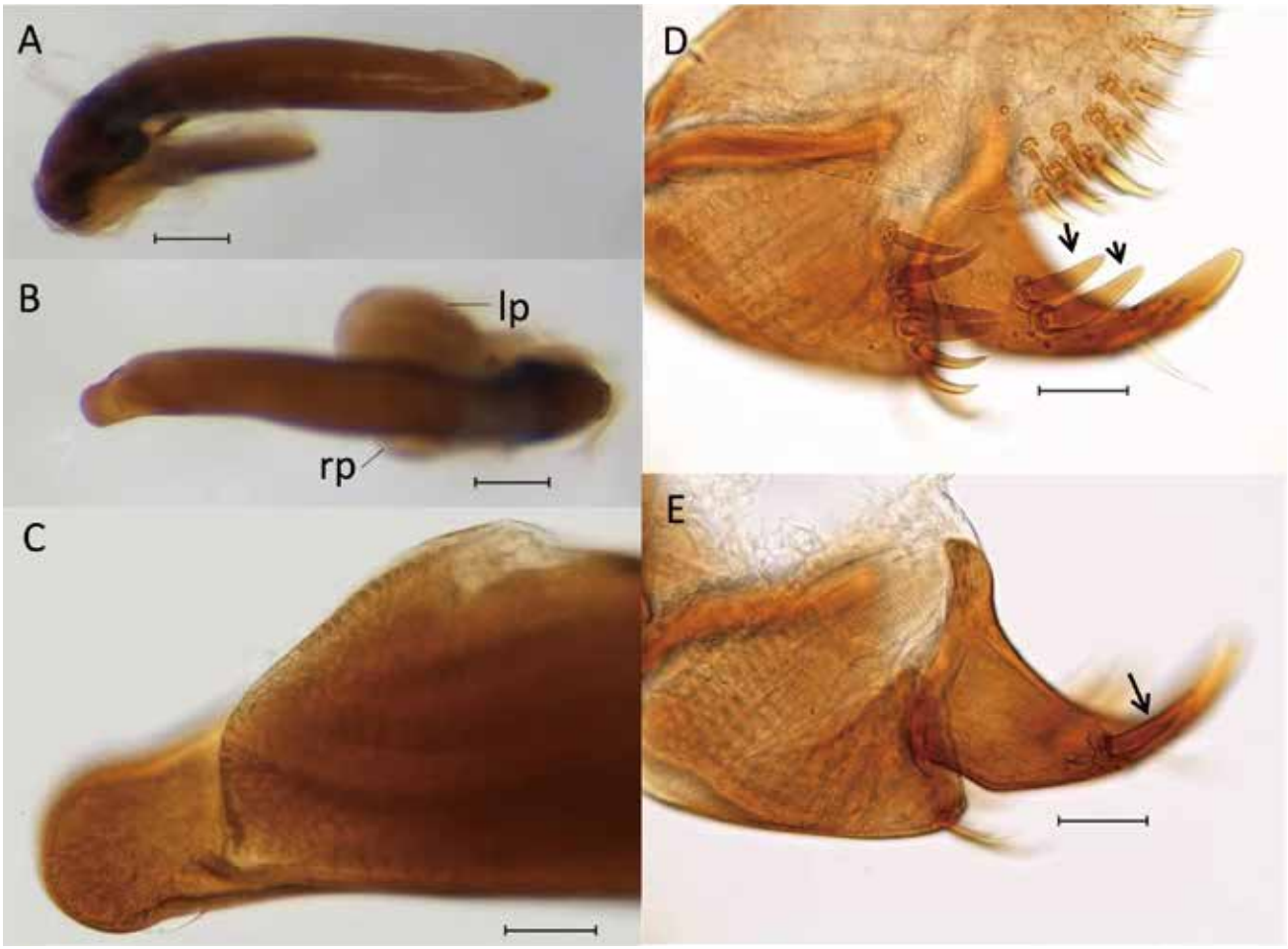

Fig. 19. Genitalia of *Eucolliuris fuscipennis*. A. Aedeagus in left-lateral view. B. Aedeagus in dorsal view. The left paramere is indicated by "lp" and the right one by "rp". C. Apical portion of aedeagus in right-lateral view. D. Left stylus in ventral view, showing the apical segment with two spines (arrows). E. Right stylus in dorsal view, showing the apical segment with one spine (arrow). Scales = 0.2 mm (A, B) and 0.05 mm (C-E).

rivers.

Remarks: The present species resembles *E. litura* from which it is distinguished by the characters mentioned in the key. Habu (1967) stated that the apical part of the aedeagus bends dorsad in *E. fuscipennis*, but this feature is not so evident as he illustrated according to the present study. The distributional record of this species in Taiwan was repeatedly cited in previous papers, but no real data on specimens were published.

***Eucolliuris litura* (Schmidt-Goebel, 1846) [new record for Taiwan]**

(Fig. 20)

Odacantha litura Schmidt-Goebel, 1846: 22.

Genitalia: Not examined.

Measurements (based on 2 specimens): Length 5.66~6.58 mm. Width 1.66~2.05 mm. Antennomeres I: II: III: IV: V: VI: VII: VIII: IX: X: XI, 1: 0.43~0.44: 0.90~0.92: 0.92~1.00: 0.92~1.00: 0.85~0.93: 0.85~0.93: 0.82~0.93: 0.82~0.90: 0.75: 1.14. HL/HW, 1.09~1.11. HW/FW, 1.67~1.68. Length of tempora/eye diameter, 1.17~1.20. PL/PW, 1.14~1.25. PL/EL, 0.34~0.35. PW/HW, 0.88~0.92. PW/PA, 1.91~1.93. PW/PB, 1.31~1.42. PB/PA, 1.35~1.45. EW/PW, 1.79~1.80. EL/EW, 1.83~1.93.

Specimens examined: New Taipei City, Sanchih [新北市, 三芝]: 1 ♂, 7-ix-2001, M.H. Hsu leg. (Terada-47). Taoyuan County, Yangmei [桃園縣, 楊梅]: 1 ♂, 18-vi-2002, M.H. Hsu leg. (Terada-103). Deposited in NMNS and KTHJ. The above specimens were collected in grassy vegetation around cultivated fields.

Remarks: The present species resembles *E. fuscipennis* from which it is distinguished by the characters mentioned in the key. *Eucolliuris litura*, *E. fuscipennis*, and *Odacantha metallica* are often found together in the same habitat.

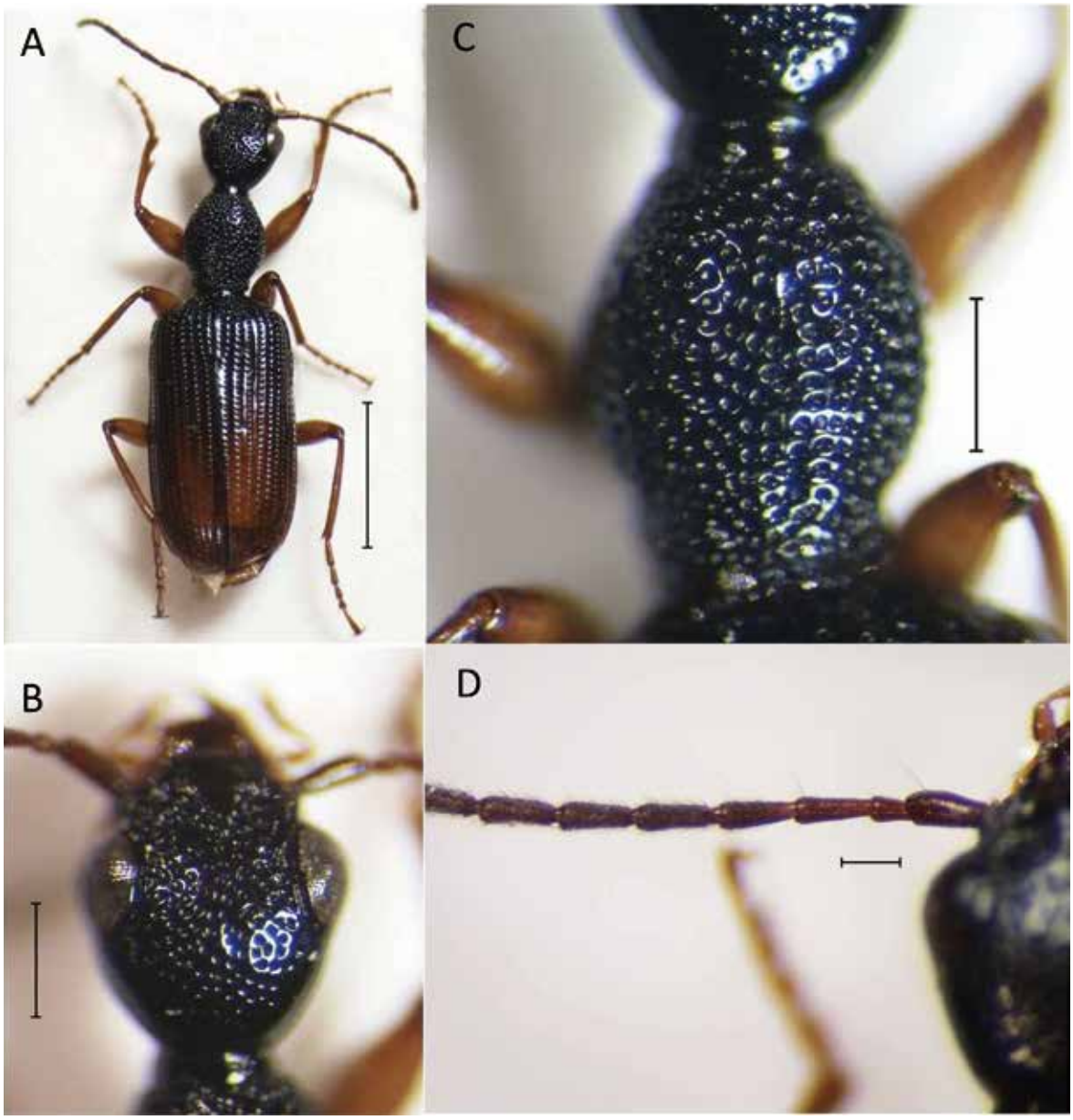

Fig. 20. *Eucolliuris litura*. A. ♂ from Yangmei, Taoyuan County, Taiwan. B. Head. C. Prothorax. D. Left antenna, showing antennomeres I~III as dark as the rest of the antenna. Scales = 2 mm (A); 0.5 mm (B, C); and 0.2 mm (D).

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We thank Dr. Meng-Hao Hsu and Ms. Yueh-Lin Yang for helping us with fieldwork. We are grateful to Dr. Roberto Poggi and Dr. Luca Toledano for giving useful information about the type specimens of *Ophionea bhamoensis* preserved in the Museo Civico di Storia Naturale, Giacomo Doria, Genova, Italy. Thanks are also due to Dr. Chi-Feng Lee and again to Dr. L. Toledano for their critical reading of the manuscript.

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臺灣產步行蟲總科 (鞘翅目) 之註記(V)— Odacanthini 之綜述及新亞種 *Ophionea bhamoensis taiwanensis* subsp. nov. (步行蟲科) 之描述

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本文綜述 8 種 Odacanthini (步行蟲科) 臺灣產種類，包括三新紀錄種：*Archicolliuris bimaculata bimaculata* (Redtenbacher, 1844), *Mimocolliuris insulana* Habu, 1979 及 *Eucolliuris litura* (Schmidt-Goebel, 1846)，描述一新亞種*Ophionea bhamoensis taiwanensis* subsp. nov.，及新增四已紀錄種的採集紀錄：*Ophionea ishiii ishiii* Habu, 1961, *Oph. indica* (Thunberg, 1784), *Odacantha metallica* (Fairmaire, 1884) 及 *Eucolliuris fuscipennis* (Chaudoir, 1850)。另製作 Odacanthini 臺灣產9種的檢索表。

關鍵詞：新紀錄，新亞種，Odacanthini，臺灣，分類。