Study of Asian Cerambycidae, X (Coleoptera)

By Masao Hayashi[1)]

Abstract Twelve new species and 1 new subspecies of Cerambycidae are described, 5 from Taiwan, 2 from Vietnam, 2 from Malaysia, 2 from Sumatra and 2 from Philippines; 3 new synonyms are stated for the Philippine species.

The present 'Number' was planned to issue as honour of his 77th anniversary of Mr. Masafumi Ohkura, the President of the Japan Coleopterological Society. Mr. M. Ohkura and I were active to create 'Coleoptera Section' of the Kansai Entomological Society under the direction of Mr. Nobuyoshi Tosawa, in 1943, about 50 years ago, with Mr. Hiroshi Kôno, the late Mr. Masahiro Iga and Mr. Mitsuo Gotô. However, though that time was near the final of the World War II, about 4 times of meetings had been done, we could not obtain satisfied result. As soon as the war was finished in 1945, we again tried very hard to establish a group by the amateur entomologists who love very much to study beetles in field and laboratory and finally succeeded to create a new society, "Kinki Kôchu Dôkôkai", the ancestor of the present Japan Coleopterological Society.

The good communication between Mr. Ohkura and I is accordingly kept about 50 years' continuation, from the foundation of the "Society". During these long years, Mr. Ohkura has been continuing his constant devotional contribution, serving almost all services relating to the direction of the Society activities, by his strong will, although he has been blessed with good health, in spite of surmounting the frequent difficulties.

I have to express my hearty respects and many thanks to Mr. Ohkura, for his above stated services for our Society. And I would contribute a study and a relationship of Mr. Ohkura and I (in Japanese), to congratulate his longevity and health and heartily hope further more and more healthy life.

In the present paper, I treat 13 species, 9 belong to Cerambycinae and 4 to Lamiinae, and among these, 5 came from Taiwan, 2 from Vietnam, 2 from Sumatra, 2 from Malaysia and also 2 from Palawan and Mindanao, Philippines. *Neocerambyx*, *Eunidia* and *Blepephaeopsis* are firstly recorded in this paper from Taiwan, these three genera are believed as the elements of 4th distribution belt by my distribution belts theory (1960). And, the synonyms are also stated for the three species of Cerambycinae, *Lachnopterus*, *Schmidtiana* and *Chelidonium* from Philippines.

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The materials used in the present study were come to my attention partly in my collecting trip to Taiwan in May, 1992, and previously in my collection, during the suspended term of my disease time in past three or more years. Mr. HAJIME NARA, Yuasa, Wakayama has so kindly given me various assistances to examine all his collections, and to take me all the pictures relating to my study, etc. Mr. MASAMICHI YAGI, Ibaraki, Osaka is also so kind to examine freely his collections. I wish to express my sincerest thanks to them. Two of Taiwanese new species were found during my trip to Taiwan, along with Messrs. H. NARA and Z. NOMURA, therefore, these two species are described in this paper with Mr. H. NARA, as the co-laborator.

Many thanks are also due to Mr. ZEN NOMURA, Nishinomiya, Hyogo who was so kind to give me all of cerambycid-collection during his collecting trips to assist my study.

Cerambycinae

Cerambycini

1. *Lachnopterus argenteomaculatus* HAYASHI

HAYASHI, 1982, Spec. Iss. Mem. Retir. Emer. Prof. M. CHÛJÔ: 137, figs. 2-3 (Bukidonon, Mindanao, Philippines).

Lachnopterus elisabethae HÜDEPOHL, 1990, Entomofauna, 11 (3/2): 76, 79, fig. 21 (Bukidonon, Philippines). —**Syn. Nov.**—

By both original descriptions and attached figures, *L. elisabethae* HÜDEPOHL is a complete synonym of this species, described from the same type locality.

2. *Neocerambyx taiwanensis* sp. nov. (Pl. 9, fig. 1)

Coloration of body is quite similar to *Plocaederus bicolor* GRESSITT, 1942 from China and Taiwan, only excepting black antennae, however, the combination of the body structures are quite different.

Body entirely shiny black; legs dark red; coxae, trochanters, extreme bases and apices of femora, basal halves and extreme apices of tibiae and tarsi black. Body thinly covered with pale grey tomentose, and scarcely on antennae, lateral and apical portions of elytra, ventral surface, tibiae and dorsal tarsi, and densely with fulvous tomentose on ventral tarsi.

Head: frons circularly concave, with a dull top oval convexity in centre, a pair of longitudinal carinae at sides, and with a narrow carina started from the top of the oval convexity, backward through vertex and broadened on occiput between upper lobes of eyes, and finely punctured along neck, sparsely so on genae; antennal tubercles raised but

depressed above; eyes coarsely faceted. Antennae 1¼ times as long as body in ♂, scape rather short, and thickened to apex, 3rd to 5th strongly clubbed at apices, and 6th to 11th slender; relative length of each joint is as follows:— 3.2 : 0.7 : 3.5 : 2.3 : 2.5 : 4 : 4.5 : 4.5 : 4.3 : 4 : 5.6 (curved). Prothorax broader than long, bi-constricted at apex and base; 1st just insides of apex and base, and 2nd undulate before and behind disc; distinctly inflated laterally just behind middle by complicated tubercles, but not sharp spines, surface of disc occupied by the complicated large and small depressed tops' corrugations laterally and 3 pairs of small round tubercles, 1st and 2nd at apex and on centre, 3rd somewhat longitudinal just before the inner constriction near base, a carina with 3 small tops related to the central pair and a dull transverse tubercles behind the transverse carina. Scutellum semicircular, covered with pubescence. Elytra 2.4 times as long as the basal width, once widened behind humeri, then straightly narrowed posteriorly to strongly emarginate apices with strongly spined both angles; disc convex, almost impunctate. Legs relatively long and slender, femora straight, tibiae slightly widened apically. Ventral surface: gula transversely costate, front acetabula triangularly prolonged outward, breast and abdomen partly very minutely sparsely punctulate.

Length, 41 mm., width, 11 mm.

Holotype: ♂, Shouchia, Sityu County, Pintung Hsien, Taiwan, May 2, 1991, M. YAGI leg. (YAGI Coll.).

Distribution: Taiwan.

3. *Neocerambyx tamdaoensis* sp. nov. (Pl. 9, fig. 2)

The coloration of body is quite similar to *N. taiwanensis* HAYASHI, just above described, however, structures of head and prothorax are quite different.

Body shining black, only excepting legs largely light reddish brown, black on coxae, trochanters, extreme bases and apices of femora, basal halves and extreme apices of tibiae and tarsi.

Head: frons pentagonally concave, a pentagonal depressed top convexity at centre, with a longitudinal narrow carina carrying a fine median longitudinal furrow on it, which started from the top of the pentagon backward through between flat above convex antennal tubercles to slightly widened to occiput; mandibles, clypeus and genae finely punctured; eyes coarsely faceted. Antennae slightly surpass elytral apices, scape short, thickened apically, 3rd to 5th joints clubbed apically, 6th to 10th angulately produced ectoapically, and 11th constricted at

apical one-third and pointed at apex. Prothorax nearly as long as wide, bi-constricted behind apex and before base, respectively, 1st constrictions just behind apex and before base and 2nd undulately just before and behind disc; disc entirely occupied by the longitudinally arranged large and small corrugations, except the middle, on which with a longitudinal carina, and a basal furrow on it; roundly expanded laterally, lacking lateral spines. Scutellum roundly triangular. Elytra 2.5 times as long as the basal width, nearly parallel-sided for basal one-third, then distinctly narrowed to emarginate and bi-dentate apices; disc convex, impunctate. Legs long and slender, finely punctured. Ventral surface: gula transversely costate, meso- and metasterna finely furnished with greyish tomentose laterally; abdomen impunctate, shallowly broadly triangularly emarginate at apex.

Length, 32 mm., width, 8 mm.

Holotype: ♀, Tam Dao, North Vietnam, June 10-18, 1991 (YAGI Coll.).

Distribution: Vietnam.

The presently described two *Neocerambyx* species from Taiwan and Vietnam are quite different from the known congeners in having black shining body with reddish legs, and the genus is firstly recorded from Taiwan.

Molorchini

4. *Glaphyra sungkangensis* sp. nov. (Pl. 9, fig. 3)

This new species belongs to the group consisting of *G. cobaltina* (HAYASHI) from Amami Oshima and *G. morii* MAKIHARA from Tanegashima, Japan, and differs from the latters in having the following characteristics:—

Body shiny dark cobalt blue, apical half of 4th antennal joint, and 5th to 11th frosting black; body furnished with long erect or suberect white hairs sparsely on dorsal surface, antennae and legs, with short appressed white hairs densely on scutellum and covered with whitish pubescence on basal constriction of prothorax and partly on abdominal segments.

Head as broad as apex of prothorax, coarsely and rugulately punctate, with a median longitudinal furrow from frons, prolonged backward through dully concave vertex to occiput. Antennae in ♂, about 1.7 times as long as body, in ♀, scarcely arrive at apex of 4th abdominal segment, relative length of each joint is as follows:— 3 : 0.7 : 2.5 : 3.8 : 5.5 : 5.7 : 5.7 : 5.6 : 5.5 : 5.3 : 6 (♂). Prothorax 1.3 times (♂), and 1.24 times (♀) as long as broad, constricted at a short distance behind apex and some dis-

tance before base, then gradually widened posteriorly to 3/7 point and narrowed strongly backward to basal collar; disc coarsely closely punctured behind apical constriction and on median longitudinal depressed area, with a pair of impunctate glossy portions on sides of apex, and on lateral low convex portions coarsely irregularly reticulate-punctate, just before basal constriction. Scutellum broader than long, transversal ellipse, with a deep median longitudinal impression. Elytra a little broader than prothorax, 1.27 times (♂), and 1.24 times (♀) as long as the basal width, gradually narrowed posteriorly to separately rounded apices and dehiscent at suture; disc irregularly sparsely punctured, with obliquely inverted triangular convexities along basal suture and apical one-third. Femora clavate and closely punctured, tibiae sparsely dentate on lower edges.

Length, 7.5–8 mm., width, 1.6–1.8 mm.

Holotype: ♂, Sungkang, Nantou Hsien, Taiwan, May 6, 1992, M. YAGI leg. (YAGI Coll.). Allotype: ♀, Meifeng, Nantou Hsien, May 16, 1986, C. C. LUO leg. (HAYASHI Coll.).

Distribution: Taiwan.

This new species differs from the other two allies in having two shining impunctate areas near apex of prothorax, lacking a median basal callosity, relatively broader prothorax, and different ratio of prothorax, elytra and antennal joints.

Callichromini

5. *Schmidtiana fuscocyanicollis* sp. nov. (Pl. 9, fig. 4)

Head fulvous, upper half of clypeus, central portion of frons, vertex, occiput and temples darkened. Antennae fulvous, basal half of scape, apical half of 5th and 6th to 11th joints black. Prothorax including prelateral protuberances and scutellum glossy greenish black, with certain blue reflection. Elytra metallic green on apical four-fifths and fulvous brown on basal one-fifth. Ventral surface dark blue black. Legs fulvous brown, front femora annulated with black medially, front tibia darkened apically and tarsi dark brown.

Head relatively small, frons sparsely punctured, with several coarse pores on the space between eyes, on which with a longitudinal furrow at middle. Antennae surpass the middle of elytra in ♀, scape short, strongly thickened and thinly produced ectoapically, 3rd joint the longest, shorter than 4th and 5th united together (ratio: 6 : 8), and sharply angulate ectoapically from 6th to 10th. Prothorax fairly transverse, constricted at some distances behind apex and before base with 6 or 7 rows of transverse wrinkles on apical collar, furnished with sharp lateral

tubercles behind middle and inflated prelateral protuberances; disc convex, very finely and sparsely punctured, with a pair of dull oblique carinae, a centrobasal dull tubercle and broad impressions outsides of the dull oblique carinae. Scutellum densely punctured along dull median longitudinal impression. Elytra broader than prothorax at base, 2.46 times as long as the basal width, shallowly narrowed posteriorly to narrowly truncate apex; disc finely densely punctured on metallic green portion and somewhat sparsely punctured and uneven on fulvous brown portion. Body finely punctured throughout, excepting somewhat coarse and sparse punctures on protuberances. Legs slender, femora weakly thickened, prosternum tuberculate between coxae.

Length, 49 mm., width, 19 mm.

Holotype: ♀, near Brastagi, North Sumatra, Nov. 24, 1989, ARBAIMUN leg. (HAYASHI Coll.). Paratype: 1♀, Mt. Dempo, South Sumatra, Sept. 11, 1987, J. GIDEON leg. (NARA Coll.).

Distribution: Sumatra.

6. *Schmidtiana sumatrana* sp. nov. (Pl. 9, fig. 5)

Head brownish fulvous; occiput, eyes and inner apices of mandibles black; antennae fulvous brown on 1st to 4th joints and 5th to 11th dull black, scape darkened dorsally. Prothorax and scutellum dull black, the former having reddish premedian lateral protuberances. Elytra fulvous yellow at basal one-fifth and dull black on apical four-fifths. Ventral surface fulvous brown on gula and prosternum, the latter margined with black on base and black prosternal process; meso- and metasterna and abdomen dark bluish black. Legs fulvous brown, femora annulated with blackish brown on their apical halves, tibiae and tarsi yellowish and tarsal claws blackish.

Head small, frons rugulose and finely punctured on upper half, with a pair of longitudinal carinae at sides and a median longitudinal furrow, prolonged backward through dully triangularly concave vertex to occiput, genae and temples closely punctured. Antennae arriving at apical one-fifth of elytra, scape dilated apically with an ectoapical angle, not spinose, 5th to 10th sharply angulate ectoapically. Prothorax transverse, constricted at short distances behind apex and before base, furnished with short lateral tubercles and well inflated prelateral protuberances; disc convex, furnished with 2 pairs of obtuse tubercles, a pair behind apical constriction and another pair just insides of lateral tubercles, and a longitudinal carina; coarsely punctured at central portion and finely so on surrounding region. Scutellum triangular, with a median

longitudinal impression. Elytra a little broader than prothorax, 2.66 times as long as the basal width, fairly narrowed posteriorly for basal one-fourth length of elytra, then nearly parallel-sided for next half and rounded at apex; disc convex, sparsely punctured on basal fulvous brown portion and finely closely so apical dull black portion. Ventral surface almost impunctate on gula, very finely closely punctate on prosternum, prosternum tuberculate between acetabulae, breast and abdomen finely punctured.

Length, 44 mm., width, 12 mm.

Holotype: ♂, near Brestagi, North Sumatra, June 11, 1987, ARBAIMUN leg. (NARA Coll.).

Distribution: Sumatra.

7. *Schmidtiana palawanensis* HAYASHI

HAYASHI, 1984, Bull. Osaka Jonan Women's Jr. Coll., 17-18: 18, pl. 1, fig. 1 (Brook's Point, Palawan, Philippines).

Schmidtiana palawanica HÜDEPOHL, 1988, Entomofauna, 9 (21): 414, fig. 3 (Brookes, Palawan). —**Syn. Nov.**—

By both original descriptions and attached figures, *S. palawanica* HÜDEPOHL is clear to be a synonym of this species.

Key to the known species of *Schmidtiana*

1. Elytra entirely brownish yellow or brownish fulvous decorated with apical blackish area tinged with metallic violet (*spinicollis*-group) 2
— Elytra ochraceous yellow or brownish fulvous with more or less larger metallic violet, green, blue or black apical area (*borrei*-group) 5
2. Antennae entirely brownish yellow 3
— Antennae brownish yellow, usually with apical black joints 4
3. Elytra entirely brownish yellow in both sexes, weakly rather broadly emarginate at apices, with dull sutural angles or spines; 40-43 mm. (♂), 48 mm. (♀) ..... *spinicollis* (PASCOE)
— Elytra brownish yellow with apical 1/5 violet area, broadly obliquely truncate at apices with dull sutural angles; 50 mm. (♀) ..... *testaceicornis* (PIC)
4. Antennae with apical 4 joints black, elytra entirely brownish yellow (♀), with variable apical black areas; 37-40 mm. (♂), 48 mm. (♀) ..... *insignita* (PASCOE)
— Antennae with apical 5 joints black, elytra entirely reddish chestnut, occasionally blackish; 38-41 mm. ..... *palawanensis* HAYASHI
5. Apical area of elytra violet 6
— Apical area of elytra differently coloured 7
6. Posterior 2/3 of elytra metallic bluish violet (♂) and additionally with greenish tinge (♀) ..... *javanica* PODANY

— Posterior $6/11$ of elytra blackish violet (♀) ..... *mindanaoana* HAYASHI
7. Apical area of elytra metallic green 8
— Apical area of elytra metallic blue or black 10
8. Elytral apex rounded, posterior $2/3$ of elytra metallic green ..... *borrei* RITSEMA
— Elytral apex narrowly truncate 9
9. Posterior $1/2$ of elytra metallic green ..... *borneensis* PODANY
— Posterior $4/5$ of elytra metallic green ..... *fuscocyanicollis* HAYASHI
10. Posterior $2/3$ of elytra metallic blue ..... *heyrovskyi* PODANY
— Posterior area of elytra black 11
11. Elytra black with violet tinge, only excepting yellow humeral areas ..... *ilocana* (SCHULTZE)
— Posterior $4/5$ of elytra black ..... *sumatrana* HAYASHI

8. *Pachyteria semivirescens* sp. nov. (Pl. 9, fig. 6)

Head black, scarcely reddish partly; 1st to 4th antennal joints black and the remaining 5th to 11th yellow. Prothorax dark red. Scutellum black. Elytra dark blue green. Ventral surface and legs black.

Head coarsely punctured; antennae a little surpass elytral apices; scape weakly thickened to apex, and not angulately produced ectoapically, 3rd joint shorter than 4th and 5th united together (ratio: 3.7 : 4). Prothorax bi-constricted behind apex and before base, transversely irregularly corrugated at apical collar, furnished with lateral tubercles behind middle and regularly bi-costate at base; disc coarsely punctured only excepting a median longitudinal shining line and a pair of short longitudinal small tubercles before basal constriction. Scutellum triangular, with sparse punctures and longitudinally impressed at middle. Elytra 2.28 times as long as the basal width, arcuately narrowed posteriorly to rounded apices; disc convex, densely finely punctured generally. Ventral surface: gula transversely convex and coarsely punctured, prosternum transversely corrugated, meso- and metasterna distinctly punctured and abdomen very finely closely punctured.

Length, 26 mm., width, 8 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malaysia, May 1986 (HAYASHI Coll.). Allotype: ♀, Cameron Highlands, March 1979 (YAGI Coll.).

Distribution: Malaysia.

This new species allies to *P. virescens* PASCOE from Malaysia, however, it differs from the latter in having smaller body (*virescens*: 30-32 mm.), prothorax not regularly and fully occupied with transverse corrugations on disc, and elytra not straightly narrowed posteriorly to rounded apices

9. *Pachyteria melancholica* RITSEMA
subsp. *fuscorubrithorax* subsp. nov. (Pl. 10, fig. 7)

This new subspecies differs from the nominate subspecies described from Medan, North East Sumatra in having the following characteristics:—

Prothorax dark red, apex and base narrowly blackish; disc covered with short light fulvous erect hairs on sides, somewhat irregularly and transversely corrugated, the corrugations interrupted by a very irregularly punctured median glabrous longitudinal fascia.

Head: frons, clypeus and occiput coarsely punctured, vertex finely closely punctured, with a deep longitudinal furrow from clypeus prolonged backward through frons to vertex. Antennae surpass a little elytral apex; 3rd joint shorter than 4th and 5th united together in ♂. Central concave portion on mesonotum reddish. Scutellum shining black with sparse minute punctures. Elytra dull black, covered with fine and dense punctures, carrying a hair each throughout, only excepting somewhat coarse punctures on centre of base. Ventral surface: gula transversely rugulose, mesosternum almost impunctate (as in the nominate subspecies), but metasternum distinctly sparsely punctured and abdomen finely punctured, 5th abdominal segment narrowly and deeply emarginate at middle of apex. Legs black, punctured as on metasternum.

Length, 31 mm., width, 10 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malaysia, Aug. 1987, local collector leg. (HAYASHI Coll.).

Distribution: Malaysia.

10. *Aphrodisium ohkurai* sp. nov. (Pl. 10, fig. 8)

Head metallic purple red, occiput violet, labrum and mandibles black, palpus fulvous; prothorax metallic purple red, glossy on anterior and basal collars, and frosting purple on disc; scutellum metallic purple; elytra metallic purple red on base and along suture; and the rest, median disc and laterally, frosting violet. Antennae: scape glossy black with bluish tinge, 2nd to 6th joints black with bluish tinge and the rest black. Ventral surface purple red on gula, breast and abdomen black with metallic blue tinge, covered with light fulvous pubescence on breast and laterally on abdomen. Legs black, with metallic blue tinge, shining green on apical halves of front femora.

Head densely finely punctured, with a median longitudinal furrow

started from apex of frons, prolonged backward through triangularly concave vertex to the middle of occiput. Prothorax broader than long, strongly constricted at apex and base, irregularly transversely costate in 5–6 rows on apical collar, furnished with sharp lateral tubercles just behind middle, and subregularly transversely costate in 4–5 rows on basal collar; disc convex, decorated with a pair of large oblique oblong depressions just before basal bisinuate transverse carina and coarsely closely punctured. Scutellum elongate triangular, sparsely punctured with a longitudinal median impression. Elytra slightly broader than prothorax (ratio: 9 : 10), 2.44 times as long as the basal width, straightly narrowed posteriorly to narrowly conjointly rounded apex; disc bi-costate at middle of disc and at sides and concave along suture, finely sparsely punctured. Antennae 0.93 times as long as body in ♂, and arrive at apical one-fifth of elytra in ♀, scape widened posteriorly and bi-angulate at apex and finely closely punctured, dentate at apices from 5th to 10th and 11th constricted medioapically. Ventral surface rugulose-punctate on gula and prosternum, and breast and abdomen sparsely punctulate.

Length, 31 mm., width, 10 mm.

Holotype: ♂; allotype: ♀; and paratype: 1♂, North East Coast of Palawan Is., Philippines, no further data (HAYASHI Coll.).

Distribution: Philippines (Palawan).

The new specific name is given for the congratulation of the 77th anniversary of Mr. MASAFUMI OHKURA who has served very earnestly for the Society for nearly fifty years. Our Society would not have been prosperous for such a long time without his devotional contribution.

11. *Aphrodisium viridiaeneum* sp. nov. (Pl. 10, fig. 9)

Head: frons and genae metallic emerald green, vertex, occiput and temples golden red; prothorax golden red dorsally and metallic emerald green laterally; scutellum light green and red; elytra metallic emerald green, with a pair of broad longitudinal dark red portions laterally. Antennae black, with bluish strong tinge from 1st to 6th and the rest black. Legs black, with strong blue tinge on femora and basal halves of tibiae, tarsi reddish fulvous. Ventral surface golden red on gula, emerald green on prosternum, meso- and metasterna and abdomen blue violet.

Head densely punctured and sparsely so on occiput, with a median longitudinal furrow started from apex of frons, backward through dully triangularly truncate vertex to occiput. Antennae 0.9 times as long as body in ♂, scape widened apically, and bi-angulate at apex and closely punctured, 5th to 10th joints dentate ectoapically and 11th con-

stricted medioapically. Prothorax strongly constricted at apex and base, rugulose-punctate at apical collar, furnished with sharp lateral tubercles and transversely costate, somewhat irregular at middle on basal collar; disc densely coarsely punctured, furnished with a complete longitudinal impression at middle, a pair of small shallow oblique depressions at sides just before bisinuate transverse carina before basal collar and a heart-shaped black mark on centre. Scutellum elongate triangular, with a median longitudinal impression. Elytra a little broader than prothorax (ratio: 7.5–8 : 8.5–9), 2.38–2.47 times as long as the basal width, straightly narrowed posteriorly to conjointly rounded apex; disc convex, tri-costate, 1st short, started from middle near suture obliquely backward and relating to apical one-third of 2nd costa, which on middle of disc and ended at apical one-sixth, and 3rd started from behind humeri to apical one-fifth, shallowly concave along suture, very finely and densely punctured, sparsely around scutellum. Ventral surface rugulose-punctate on gula, obliquely rugose on prosternum, covered with whitish pubescence, densely on meso- and metasterna, and not so densely on abdominal segments 2–6, 6th abdominal segment with a median longitudinal furrow, which deeper at base.

Length, 29.5–31 mm., width, 8 mm.

Holotype: ♂; paratype: 1♂, Dinagat Is., Surigao Norte, North Mindanao, Philippines, June 1991, PULCIANA RIANO leg. (HAYASHI & NARA Coll.).

Distribution: Philippines (Mindanao).

Key to *Aphrodisium semiignitum*-group in Philippines

1. Body metallic greenish 2
— Body dorsum cupreous red or metallic purple red 3
2. Head, prothorax and scutellum glossy metallic greenish bronze, elytra metallic blue with green reflection; prothorax with well-pronounced bifid patch of black pubescence, ventral surface and legs dark blue, only excepting reddish ochraceous tarsi; 24.5 mm., Luzon ..... *luzonicum* SCHULTZE
— Head, prothorax and scutellum metallic green, golden red on prothorax, elytra largely metallic green and golden red along the lateral sides, ventral surface and legs violet blue; prothorax with a median longitudinal shining impression, a pair of small shallow oblique depressions at sides just before bisinuate transverse carina before basal collar, and a heart-shaped black mark on centre; 29.5–31 mm., Mindanao ..... *viridiaeneum* HAYASHI
3. Head, prothorax and scutellum cupreous red to violet 4
— Head, prothorax, scutellum and elytra metallic purple red, frosting purple on prothoracic disc and at sides of elytra; breast, abdomen and legs metallic bluish; prothorax with a pair of large oblique oblong depressions just before basal bisinuate transverse carina; 31 mm., Palawan ..... *ohkurai* HAYASHI
4. Head, prothorax and scutellum metallic purplish bronze, elytra and legs dark blue,

except tarsi yellowish, ventral surface glossy greenish blue; prothorax with a rather sharp ridge posteriorly, and densely and coarsely rugulose-punctate; 35 mm., Panay ..... *panayarum* SCHULTZE

— Head, prothorax and scutellum cupreous red, elytra emerald green, base purple, ventral surface green and legs bluish, except tarsi yellowish; prothorax transversely carinate; 33 mm., Luzon ..... *semiignitum* (CHEVROLAT)

12. *Chelidonium semivenereum* HAYASHI

HAYASHI, 1984, Bull. Osaka Jonan Women's Jr. Coll., 17-18: 32, pl. 2, fig. 7 (Camp 2, Pel Well Ck., Benguet, Luzon, Philippines).

Chelidonium lumawigi HÜDEPOHL, 1989, Entomofauna, 10 (31): 484, fig. 5 (Luzon, Marinduque, Philippines). —**Syn. Nov.**—

C. lumawigi HÜDEPOHL is a synonym of this species, by the original descriptions and attached figures of the both species.

Lamiinae

Apomecynini

13. *Eunidia taiwanensis* HAYASHI et NARA, sp. nov. (Pl. 10, fig. 10)

Body minute, dark brown, finely densely covered with brownish fulvous pubescence, antennae covered with scarce pubescence, and legs covered with fine pubescence, densely on tibiae.

Head broader than apex of prothorax (ratio: 6: 5) including big compound eyes; frons trapezoidal, plain, finely sparsely punctulate, with a fine median longitudinal furrow, started from apex of frons, once vanished on centre of frons, again appears from top of frons backward through dully triangularly concave vertex to occiput. Eyes coarsely faceted, distinctly emarginate insides, lower lobe 1.6 times as long as wide and about 6 times as long as gena below it. Antennae 1.57 times as long as body, scape thickened, 2nd short, thickened, 3rd short, dilated apically and triangularly angulate ectoapically, and 4th and the succeeding joints slender; relative length of each antennal joint is as follows:— 4.5 : 0.5 : 1.2 : 4.7 : 4.8 : 4.2 : 4 : 3.8 : 3.5 : 3.2 : 3 (♂). Prothorax broader than long (ratio: 5: 4), bi-constricted behind apex and before base, broadest at apex, narrowed posteriorly (ratio: 5: 4), apex and base reflexed, disc with a median longitudinal carina and the punctures vanished by the dense pubescence. Scutellum narrowed to round apex, with a median longitudinal impression. Elytra slightly broader than pronotal apex (ratio: 5: 6), 2.5 times as long as the basal width, parallel-sided and separately rounded at apices; disc convex, but plain on dorsal surface,

coarsely sparsely punctured. Legs relatively slender, femora thickened posteriorly, tibiae thickened to apices and middle tibia sulcate, tarsi relatively slender, and claws divergent.

Length, 6–8.5 mm., width, around 2 mm.

Holotype: ♂, Feng Kang Shan, Taoyuan County, Kaohsiung Hsien, Taiwan, May 30, 1991, W. L. CHEN leg. (HAYASHI Coll.). Paratypes: 1♂, Pao Shan, May 6, 1991, W. L. CHEN leg.; 2♂♂, Siling, Fuhsing Co., Taoyuan Hsien, May 15, 1991 & May 7, 1992, S. T. ZENG leg.; 1♂, Tengzhi, Taoyuan Co., Kaohsiung Hsien, May 12, 1991, W. L. CHEN leg.; 1♂, Sungkang, Lenai Co., Nantou Hsien, June 25, 1992, H. NARA leg. (HAYASHI & NARA Coll.).

Distribution: Taiwan.

This new species is closely allied to *Eunidia atripes* BREUNING, 1960 from Lungtao Shan, Kwangtung Province, China, however, it differs from the latter in having body dark brown, instead of red, blackish brown antennae and legs, instead of black, 4th antennal joint longer than scape, instead of as long as scape and elytra coarsely sparsely punctured, while very densely and finely so in *atripes*.

14. *Eunidia fengkangshanensis* HAYASHI et NARA, sp. nov.

(Pl. 10, fig. 11)

Body black, densely covered with light fulvous white pubescence generally, excepting thinly so on antennae and legs.

Head including compound eyes broader than apex of prothorax (ratio: 5.7 : 4.7), frons almost quadrate, but scarcely wider at apex than top (ratio: 4.2 : 4), finely sparsely punctured with a median fine longitudinal furrow from apex, prolonged backward through very broadly weakly concave vertex; eyes coarsely faceted, under eye lobe twice as long as broad (ratio: 3.5 : 1.75), 7 times as long as gena below it (ratio: 3.5 : 0.5). Antennae 1.6 times as long as body, 3rd triangularly prolonged ectoapically, relative length of each antennal joint is as follows:— 3.8 : 0.5 : 0.7 : 4.2 : 4.2 : 4 : 3.7 : 3.3 : 3 : 2.8 : 3 (♂). Prothorax inverted trapezoid, apex slightly broader than base (ratio: 5.8 : 5), broader than long (ratio: 5.8 : 4.2), biconstricted behind apex and before base, and a constriction distinct at short distance before base, narrowed posteriorly to basal constriction; disc convex with a median longitudinal carina. Scutellum tongue-shaped, with a median longitudinal furrow. Elytra 2.75 times as long as the basal width, almost parallel-sided at basal one-third, then slightly widened posteriorly to apical one-third point before apex, apex rounded; disc convex, but plain on dorsal surface, and flatly depressed on middle one-third, finely subclosely punctured. Legs slender, femora thickened, middle tibiae distinctly sulcate just below outsides, and tarsal claws divergent.

Length, 8-8.5 mm., width, 2-2.3 mm.

Holotype: ♂, Fengkangshan, Taoyuan Co., Kaohsiung Hsien, Taiwan, May 30, 1991, W. L. CHEN leg. (HAYASHI Coll.). Paratype: 1♂, Paoshan, Taoyuan Co., Kaohsiung Hsien, May 7, 1991, W. L. CHEN leg. (NARA Coll.).

Distribution: Taiwan.

This new species is characteristic and has no close allies from Asian region (India, Ceylon, Burma, Vietnam, Laos and China).

The genus *Eunidia* ERICHSON is firstly recorded from Taiwan by the present report.

Agniini

15. *Blepephaeopsis yagii* sp. nov. (Pl. 10, fig. 12)

Body black, finely covered with greyish fulvous brown pubescence generally. Antennae with dark apical portions from 3rd to 10th joints by scarce pubescence. Scutellum covered with yellowish fulvous pubescence. Elytra decorated with a pair of whitish grey pubescent oblique bands just before middle which close to margins and far from suture, and scattered with small grey patches on posterior half.

Body medium, slender. Head: frons convex, sparsely punctured, with a median longitudinal furrow prolonged backward, but once hidden between antennal insertions, again appears on occiput; antennal insertions raised; eyes not so finely faceted, inferior eye lobe longer than broad, twice as long as gena below it (ratio: 5 : 2.5). Antennae 1.9 times as long as body, without cilia below; scape slender, weakly thickened apically, with a complete cicatrix at apex, 3rd joint as long as 4th and 5th respectively and longer than scape. Prothorax broader than long, constricted at apical collar and before base, with a sinuate narrow constriction at apex of pronotal disc, tuberculate laterally at middle; disc furnished with 5 obtuse tubercles, a pair at sides behind apical constriction, another pair insides of lateral tubercles and one at middle just before basal constriction, additionally scattered with a few small black granules at both sides of basal half of disc. Scutellum broad, tongue-shaped. Elytra distinctly broader than prothorax at base, 2.3 times as long as the basal width, very slightly narrowed posteriorly and obliquely truncate at apices; disc convex, obtusely broadly inflated dorsally along inner half and suture at base, sublinearly and sparsely punctured on basal half, the punctures becoming finer apically. Legs moderate in length, slender, femora linear, not thickened, middle tibia sulcate on apical half and tarsal claws divergent. Ventral surface: prosternal process narrow, lower than the acetabulae, mesosternal process weakly inclined

to base, metasternum normal in length and 5th abdominal segment inverted trapezoidally depressed to apex and almost transversely truncate at apex.

Length, 20 mm., width, 6 mm.

Holotype: ♂, Shouchia, Sityu County, Pintung Hsien, Taiwan, May 5, 1992, M. YAGI leg. (YAGI Coll.).

Distribution: Taiwan.

This new species is allied to *B. nigrosparsus* BREUNING, 1938 from Burma, the type of the genus, however, this species can be easily differentiated from it by the following points:—

Body covered with greyish fulvous brown pubescence, instead of olive grey, under eye lobe twice as long as gena below it, instead of six times, scutellum as long as the basal width, with yellowish pubescence, instead of elongate, not yellowish, elytra decorated with whitish grey short oblique bands just before middle, instead of long oblique white bands from behind humeri to median suture, punctured sublinearly and sparsely on basal half, instead of densely and finely punctured, and oblique truncate at apices, instead of rounded.

16. *Blepephaeopsis vietnamensis* sp. nov. (Pl. 10, fig. 13)

This new species is closely allied to *B. yagii* HAYASHI from Taiwan, however, it differs from the latter in having the following characteristics:—

Body clothed with greyish fulvous brown pubescence, decorated with a pair of undulate transverse bands just before middle of elytra, which close to margins and a little far from suture, and additionally scattered with small white patches.

Under eye lobe 1.66 times as long as gena below it (ratio: 5:3). Prothorax sparsely punctured and sparsely scattered with small black granules on disc. Elytra distinctly narrowed posteriorly from a short distance from humeri to distinctly obliquely truncate apices; disc coarsely sparsely punctured on basal one-third, the punctures becoming shallower and finer apically. Antennae twice as long as body, 3rd joint a little longer than 4th, 4th nearly as long as 5th and 11th almost straight.

Length, 20 mm., width, 6 mm.

Holotype: ♂, Tam Dao, North Vietnam, Jan. 10-18, 1992, local collector leg. (YAGI Coll.).

Distribution: Vietnam.

The genus *Blepephaeopsis* BREUNING is firstly recorded in this paper, from Taiwan and Vietnam, besides Burma.

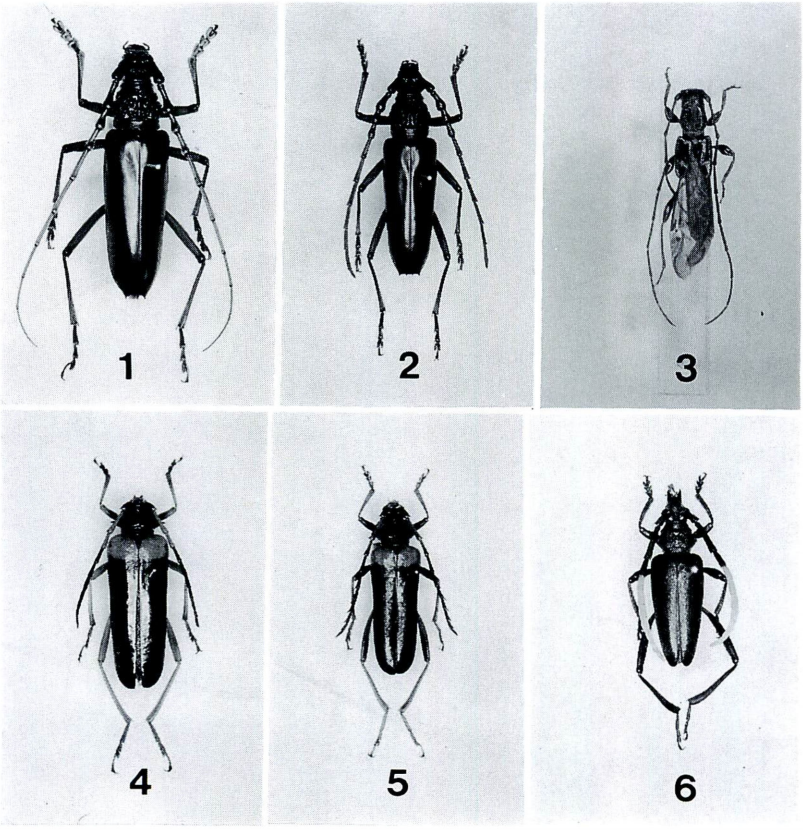
Correction

Comusia thailandica HAYASHI (1986, Ent. Pap. pres. KUROSAWA, Tokyo : 265). In the original description of this species, ratio of each antennal joint is partly mistakenly noted. It should be read as follows :— 6.5 : 1.6 : 4.8 : 4.5 : 7.5 : 7.5 : 8 : 8 : 7.8 : 7.5 : 7.5. I have to express my thanks to Mr. C. HOLZSCHUH, Wien, Austria for his kind advice.

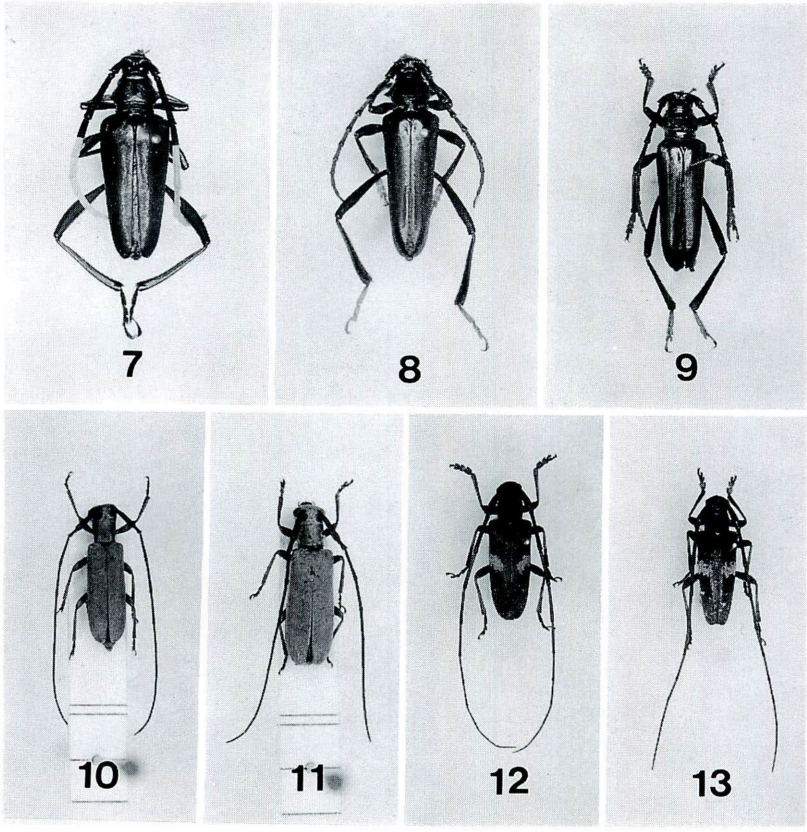
Explanation of Plates 9-10

Pl. 9, fig. 1. *Neocerambyx taiwanensis* sp. nov., ♂, S. Taiwan.
2. *Neocerambyx tamdaoensis* sp. nov., ♀, N. Vietnam.
3. *Glaphyra sungkangensis* sp. nov., ♂, Montane C. Taiwan.
4. *Schmidtiana fuscocyanicollis* sp. nov., ♀, Sumatra.
5. *Schmidtiana sumatrana* sp. nov., ♂, Sumatra.
6. *Pachyteria semivirescens* sp. nov., ♂, Malaysia

Pl. 10, fig. 7. *Pachyteria melancholica* RITSEMA subsp. *fuscorubrithorax* subsp. nov., ♂, Malaysia.
8. *Aphrodisium ohkurai* sp. nov., ♂, Palawan, Philippines.
9. *Aphrodisium viridiaeneum* sp. nov., ♂, Mindanao, Philippines.
10. *Eunidia taiwanensis* HAYASHI et NARA, sp. nov., ♂, Taiwan.
11. *Eunidia fengkangshanensis* HAYASHI et NARA, sp. nov., ♂, Taiwan.
12. *Blepephaeopsis yagii* sp. nov., ♂, S. Taiwan.
13. *Blepephaeopsis vietnamensis* sp. nov., ♂, N. Vietnam.



(H. NARA photo.)



(H. NARA photo.)