New Tenebrionid Beetles (Coleoptera) from Taiwan

(11) Descriptions of Six New Species and Proposing Three New Treatments

Kimio MASUMOTO¹⁾, Katsumi AKITA²⁾ and Chi-Feng LEE³⁾

¹⁾ Kamesawa 3-chôme 14–13–1001, Sumida-ku, Tokyo, 130–0014 Japan
²⁾ Takachaya 7-chôme, 8–12–207, Tsu City, Mie, 514–0819 Japan
³⁾ Applied Zoology Division, Taiwan Agricultural Research Institute, Wufeng, Taichung, 413, Taiwan

Abstract Taiwanese tenebrionid beetles are dealt with. Six new species are described: Amarygmus (Amarygmus) wangi sp. nov.; A. (A.) nantouensis sp. nov.; A. (A.) maliburuensis sp. nov.; A. (A.) yanmingensis sp. nov.; Plesiophthalmus (Plesiophthalmus) kentingensis sp. nov.; P. (P.) lalashanus sp. nov. Plesiophthalmus spectabilis taiwanus NOMURA, 1964 is upgraded to a valid species (i. e., P. (P.) taiwanus NOMURA, 1964). Amarygmus (Pyanirygmus) suzukii MASUMOTO, AKITA et LEE, 2014 is transferred to Plesiophthalmus (Inspinogeton) (i. e., P. (I.) suzukii (MASUMOTO, AKITA et LEE, 2014), comb. nov.). Pseudoogeton uenoi (MASUMOTO, 1981) is rehabilitatively transferred to Plesiophthalmus (Plesiophthalmus) (i. e., Plesiophthalmus (Plesiophthalmus) uenoi MASUMOTO, 1981).

As the eleventh part of our series dealing with the Taiwanese tenebrionid beetles, we will describe six new species, and propose three new combinations.

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The abbreviations used herein are as follows: NMNST = National Museum of Natural Science, Taichung, Taiwan; NSMT = National Museum of Nature and Science, Tsukuba, Japan; TFRI = Taiwan Forestry Research Institute, Taipei, Taiwan.

Subfamily **Tenebrioninae**Tribe **Amarygmini**

Amarygmus (Amarygmus) wangi sp. nov.

(Figs. 1, 13-14)

M a l e: Body oblong-ovate, strongly convex dorsad; anterior portions of head and elytra nearly black, posterior portion of head, anterior and posterior portions of pronotum dark purple, major me-

dio-lateral portions and apical and basal margins of pronotum, and scutellum dark green, antennae and ventral side brownish black, legs almost black, claws brown, hairs on antennae pale brown and those on legs yellowish brown; anterior portion of head moderately, slightly sericeously shining, major posterior portion of head and pronotum strongly, metallically shining, scutellum and elytra rather strongly, slightly sericeously shining, six basal segments of antennae, ventral side and legs mostly, moderately shining, five apical segments of antennae rather mat; each surface mostly glabrous, five apical segments of antennae finely haired, intero-ventral faces of tibiae and ventral faces of tarsi densely, rather setiferously haired.

Head nearly vertical in repose, rather transversely elliptical, weakly microsculptured; clypeus extremely transverse-hexagonal, weakly depressed in basal part, slightly, transversely convex in middle, weakly bent ventrad in apical and lateral parts, scattered with small, minutely haired punctures, with a shallow, transverse groove at basal 1/3; fronto-clypeal suture gently arcuate anteriad and finely impressed widely in middle, curved anteriad in lateral parts, and reaching exterior margins; genae rather widely dilated and weakly raised antero-laterad, minutely punctate, with exterior margins weakly produced; frons very boldly T-shaped, weakly convex, scattered with small punctures, with a spot-like impression at middle. Eyes somewhat transversely comma-shaped, convex laterad, strongly inlaid into head, with diatone (= distance between eyes) 0.76 times the width of eye diameter. Antennae subfiliform, tip of terminal segment reaching basal 1/4 of elytra, 11th the widest, length ratio from basal to apical segments: 0.34, 0.16, 0.36, 0.27, 0.26, 0.28, 0.28, 0.32, 0.30, 0.29, 0.42.

Pronotum somewhat trapezoidal with rounded sides, wider than long (2:1), widest at basal 2/9, weakly narrowed anteriad in basal 2/3, and then rather strongly narrowed apicad; apex widely, shallowly emarginate, very slightly sinuate in lateral parts, finely bordered and rimmed; base widely rounded, weakly produced in middle, truncate opposite scutellum, slightly sinuous in lateral parts; sides rather steeply declined to lateral margins, which are bordered and finely rimmed, the rims visible from above in posterior 1/3; front angles subrectangular, hind angles obtusely angular; disc strongly convex, very weakly flattened in postero-medial portion, weakly microsculptured, irregularly scattered with shallow punctures, and also scattered with microscopic punctures which are barely visible under 30 times magnification. Scutellum equilateral triangular, gently convex, weakly microsculptured and minutely punctate.

Elytra oblong-ovate, though the basal portion is truncate, 1.70 times as long as wide, 3.64 times the length and 1.27 times the width of pronotum, widest at basal 3/8; dorsum strongly convex, highest at basal 1/3; disc punctate-striate, the striae fine but remarkable, the punctures small, longitudinally subovate and closely set in interior portion, becoming larger and sparser in lateral portions; intervals weakly convex, very weakly microsculptured, sparsely scattered with minute punctures, very weakly wrinkled in lateral portions; humeri moderately swollen; apices very weakly produced.

Terminal segment of maxillary palpus rather weakly dilated, nearly straight exterior side about 1.3 times the length of nearly straight interior side, about 0.8 times the length of curved apex. Mentum subcordate with basal part truncate, raised medio-anteriad, weakly depressed in lateral parts, weakly microsculptured, very sparsely, finely haired in basal part. Gula triangularly bordered, microsculptured, with rather deep impressions on lateral borders.

Prosternum very short; apex very widely and shallowly emarginate, ridged along apical margins; area between procoxae deeply, longitudinally depressed, with each side of the depression noticeably, nearly vertically produced; prosternal process obtusely produced, ridged in postero-medial part. Mesoventrite short; anterior part strongly depressed, longitudinally wrinkled; medial part strongly, triangularly raised; posterior part raised and weakly convex, rugoso-punctate, and finely, sparsely haired. Metaventrite rather short, with a longitudinal medial impression in basal 2/3; anterior part

weakly convex in middle, depressed in lateral parts, scattered with large, decumbently haired punctures; medial and posterior parts widely, weakly convex, sparsely, minutely punctate, each punctures with a minute decumbent hair; lateral parts inclined, rugose and coarsely punctate anteriorly. Abdomen rather broad, weakly microsculptured; two basal ventrites coarsely punctate in major medial parts, somewhat longitudinally wrinkled in lateral parts; 3rd ventrite finely punctate (punctures somewhat transverse) in major medial part, longitudinally wrinkled in lateral parts; 4th sparsely, finely punctate in major medial parts, weakly depressed and hardly punctate in lateral parts; anal ventrite sparsely, minutely punctate, with a pair of tufts of soft hairs, and apex slightly truncate.

Femora rather strongly clavate; protibia nearly straight in dorsal view, very weakly curved ventrad, weakly gouged in medial part of ventral side, with interior face densely haired in apical 1/4; mesotibia weakly curved in dorsal view, with interior face densely haired in apical 2/5; metatibia gently curved, with interior face haired in apical half, the hairs becoming denser apicad; length ratios of promeso- and metatarsal segments: 0.45, 0.26, 0.22, 0.17, 0.77; 0.69, 0.32, 0.30, 0.20, 0.68; 1.34, 0.44, 0.24, 0.67.

Genitalia elongated subfusiform, 2.30 mm in length, 0.44 mm in width, weakly curved in lateral view; apicale elongated triangular, 0.72 mm in length, longitudinally grooved on midline, microscopically punctate in anterior parts, apical parts rounded with posterior sides angular.

F e m a l e: Antennae shorter, diameter wider, anal ventrite without pair of tufts.

Body length: 7.6-9.3 mm.

Holotype: ♂, "Fushan Botanical / Garden / Yuanshan Township / Yilan County / Taiwan // 28–29.III.2014 / T.-C. Wang, K.H. Chuang / M. Kiuchi & K. Masumoto leg." (TFRI). Paratypes: 2 ♂♂, 1 ♀, same data as for the holotype.

Notes. This new species resembles Amarygmus (Amarygmus) falsicurvus (MASUMOTO, 1982) (Figs. 2, 15–16), originally described from Wulai, Taipei Hsien, but can be distinguished from the latter by the antennae slenderer, the clypeus and genae more strongly raised, the pronotum more strongly enveloping the ventral side in the anterior portion, the elytral striae clearer, the intervals flat and punctures on them much more indistinct, the legs longer and a little bolder, and the male genitalia smaller (2.52 mm in length, and 0.51 mm in width in A. (A.) falsicurvus).

The new species also resembles Amarygmus (A.) curvus Marseul, 1876 (Figs. 3, 17–18), originally described from Japan, but can be distinguished from the latter by the body slightly widened in middle, the pronotum bearing dark greenish and purplish tinge, the elytra much more finely but continuously punctate-striate, with punctures obviously smaller, and the genitalia shorter (about 2.5 mm in A. (A.) curvus).

ANDO and BREMER (2014) mentioned the occurrence of A. (A.) curvus from Taiwan. They recorded this species from Mingchih, Ilan Co. (= Hsien) and illustrated the habitus and several parts. We confirm that the figured species is not A. (A.) curvus distributed in Japan by the body a little more elongate and subparallel-sided, and the elytra with punctures in different size and arrangement, especially those very small and close ones in interior portion.

Etymology. The specific epithet of the present new species is given in honor of Mr. T.-C. WANG who is one of the type series collectors and has been supporting our field survey for long time.

Amarygmus (Amarygmus) nantouensis sp. nov.

(Figs. 4, 19-20)

M a le: Body slightly oblong-ovate, strongly convex dorsad; head and elytra nearly black, anterior and posterior portions of pronotum dark purple, major medio-lateral portions of pronotum and scutellum dark green, elytra black with feeble grayish tinge, antennae, ventral side and legs mostly

brownish black, claws light brown, hairs on antennae pale brown and those on legs yellowish brown; head weakly, sericeously shining, pronotum and scutellum strongly, metallically shining, elytra rather strongly shining, five basal segments of antennae, ventral side and legs mostly, moderately shining, five apical segments of antennae rather mat; each surface mostly glabrous, six apical segments of antennae finely haired, intero-ventral faces of tibiae and ventral faces of tarsi densely, rather setiferously haired.

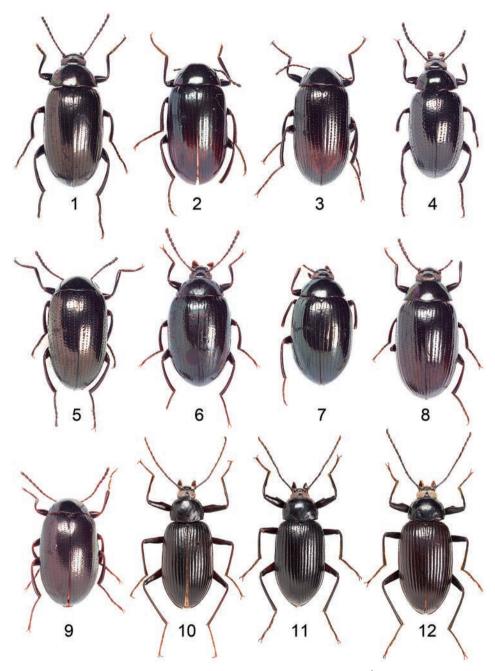
Head almost vertical, strongly inlaid into pronotum, microsculptured; clypeus obtrapezoidal, depressed in basal part, gently convex widely in middle, weakly inclined ventrad in apical and lateral parts, scattered with small, microscopically haired punctures; fronto-clypeal suture nearly straight and clearly impressed widely in middle, curved anteriad in lateral parts, and reaching exterior margins; genae oblique, weakly raised laterad, minutely punctate, with exterior margins weakly produced; frons very boldly T-shaped, gently convex, scattered with small punctures, steeply declined to fronto-clypeal suture, with a weak depression in postero-medial part; vertex rather closely punctulate. Eyes somewhat transversely comma-shaped, convex laterad, strongly, somewhat roundly inlaid into head, with diatone about 0.59 times the width of eye diameter. Antennae subfiliform, tip of terminal segment reaching basal 1/3 of elytra, 11th the widest, length ratio from basal to apical segments: 0.25, 0.12, 0.32, 0.26, 0.23, 0.25, 0.25, 0.27, 0.25, 0.22, 0.36.

Pronotum somewhat trapezoidal with rounded sides, wider than long (2:1), widest at basal 1/8, gently, roundly narrowed anteriad in basal 2/3, and then rather strongly narrowed apicad in apical 1/3; apex widely, shallowly emarginate, very slightly sinuate in lateral parts, finely bordered and rimmed; base widely rounded, weakly produced in middle, truncate opposite scutellum, slightly sinuous in lateral parts; sides rather steeply declined to lateral margins, which are weakly, roundly produced ventrad in basal 2/5, bordered and finely rimmed, the rims visible from above only near hind angles; front angles subrectangular with rounded corners, hind angles slightly obtusely angular; disc strongly, rather transversely convex, very weakly microsculptured, irregularly scattered with small, round punctures, also scattered with microscopic punctures which are barely visible under 30 times magnification. Scutellum equilateral triangular, gently convex, weakly microsculptured, sparsely, irregularly scattered with microscopic punctures.

Elytra subovate, though the basal portion is truncate, 1.62 times as long as wide, 4.05 times the length and 1.19 times the width of pronotum, widest at basal 1/3; dorsum strongly convex, highest at basal 2/7; disc with rows of punctures, the punctures rather large and sparse, often connected with fine striae; intervals slightly convex, very weakly microsculptured, sparsely scattered with minute punctures, very weakly aciculate in lateral portions; humeri moderately swollen; apices very weakly, roundly produced.

Terminal segment of maxillary palpus nearly triangular, straight exterior side about 1.2 times the length of nearly straight interior side, about 0.8 times the length of apex. Mentum and gula hardly visible due to head strongly inlaid into prosternum.

Prosternum very short; apex widely V-shaped in middle, ridged along apical margins; area between procoxae raised, deeply, longitudinally depressed in medial part, with each side of the depression raised and produced laterad; prosternal process triangularly produced, weakly depressed, granulate and minutely punctate. Mesoventrite short; anterior part strongly depressed, microsculptured; medial part nearly vertically, triangularly raised; posterior part weakly, longitudinally convex, with longitudinal furrows and rugoso-punctate ridges in lateral parts. Metaventrite rather short, gently convex widely in middle, with a longitudinal medial impression in basal 3/4; anterior parts coarsely rugoso-punctate; medial and posterior parts widely, weakly depressed in middle, microsculptured, sparsely, minutely punctate; lateral parts inclined, rugose and coarsely punctate anteriorly. Abdomen rather



broad, weakly microsculptured; three basal ventrites punctate, the punctures becoming weaker laterad and posteriad, somewhat longitudinally wrinkled; 4th more noticeably, slightly transversely microsculptured than basal to 3rd; anal ventrite weakly convex, microsculptured and sparsely, minutely punctate in medio-basal part, obliquely depressed, sparsely, minutely punctate in lateral parts, subquadrately depressed, rather closely, minutely punctate in apical part, pubescent in apico-lateral parts, with apex slightly truncate.

Femora rather strongly subclavate, weakly microsculptured, sparsely scattered with small punctures; protibia gently becoming bolder apicad, weakly curved ventrad with intero-ventral face densely haired in apical 1/3; mesotibia gently becoming bolder apicad, weakly curved intero-ventrad, with interior face densely haired in apical 1/3; metatibia gently curved, with interior face very weakly gouged and haired in apical half; length ratios of pro-, meso- and metatarsal segments: 0.30, 0.16, 0.14, 0.15, 0.51; 0.46, 0.27, 0.24, -, - (two segments missing in the holotype); 1.02, 0.32, 0.24, 0.52.

Genitalia elongated subfusiform, 2.10 mm in length, 0.38 mm in width; basale rather strongly curved in lateral view; apicale elongated triangular, 0.63 mm in length, longitudinally impressed on midline, closely, minutely punctate in anterior parts, apical parts rounded with angulations at posterior sides.

F e m a l e: Antennae shorter, diameter wider, legs not modified.

Body length: 6.6-7.6 mm.

Holotype: ♂, "Siztou / Nantou, Taiwan / 21. vi. 1992 / Luo Chinchi leg." (NSMT). Paratypes: 1 ♂, 1♀, same data as for the holotype; 2♀♀, "Siztou / Nantou, Taiwan / 7. v. 1992 / Luo Chinchi leg."; 1♂, "Siztou / Nantou, Taiwan / 23. v. 1992 / Luo Chinchi leg."; 1♂, "台湾 (Taiwan) 獅子頭 (Siztou) 13. iv. 1991 羅錦吉採集 (Luo Chinchi leg.)".

Notes. This new species somewhat resembles Amarygmus (A.) nakanei (MASUMOTO, 1982) (Figs. 5, 21–22), originally described from Kenting, the southernmost area of Taiwan. The new species can be distinguished from A. (A.) nakanei by the body slightly narrower, the clypeus longer and more strongly depressed in antero-lateral parts, the eyes more closely approximating with each other, the pronotum more noticeably bearing dark greenish and purplish tinge, the elytra smoother, and more strongly shining, with punctures in rows obviously larger and sparser, and the male genitalia longer and wider (1.90 mm in length, 0.33 mm in width in A. (A.) nakanei), with basale more strongly curved in lateral view.

This new species inhabits in the mountainous areas of central Taiwan.

Etymology. The specific epithet of the present new species is named after the area where the type specimens were collected.

Amarygmus (Amarygmus) maliburuensis sp. nov.

(Figs. 6, 23–24)

M a le: Body subovate, strongly convex dorsad; anterior portion of head, basal margin of pronotum, scutellum and elytra in areas around scutellum black with feeble brownish tinge, posterior portion of head and pronotum black with very feeble dark greenish luster, elytra mostly black, antennae, ventral side, femora and tibiae mostly brownish black, tarsi and claws reddish brown to yellowish brown, hairs on antennae pale brown and those on legs yellowish brown; anterior portion of head moderately shining, posterior portion of head, pronotum and scutellum rather strongly, sericeously shining, elytra strongly, metallically shining with remarkable luster, five or six basal segments of antennae and legs moderately shining, the remaining segments of antennae and ventral side weakly shining to almost mat; each surface mostly glabrous, five or six apical segments of antennae finely haired,

intero-ventral faces of tibiae and ventral faces of tarsi densely, rather setiferously haired.

Head almost vertical in repose, strongly inlaid into pronotum, microsculptured; clypeus obtrapezoidal, depressed in basal part, gently convex widely in middle, weakly inclined ventrad in apical and lateral parts, rather closely punctate, each puncture with a minute hair; fronto-clypeal suture nearly straight and strongly impressed widely in middle, curved anteriad in lateral parts, and reaching exterior margins; genae oblique, rather strongly raised laterad, minutely punctate, with exterior margins weakly produced; frons somewhat very boldly T-shaped, weakly convex, sparsely, irregularly scattered with small punctures, steeply declined to fronto-clypeal suture, with a triangular impunctate area close to fronto-clypeal border; vertex rather closely punctulate. Eyes somewhat reniform in dorsal view, convex laterad, strongly, rather triangularly inlaid into head, with diatone about 0.8 times the width of eye diameter. Antennae subfiliform, tip of terminal segment reaching basal 1/3 of elytra, 11th the widest, length ratio from basal to apical segments: 0.39, 0.15, 0.42, 0.34, 0.33, 0.31, 0.30, 0.30, 0.29, 0.28, 0.35.

Pronotum somewhat trapezoidal with rounded sides, wider than long (2:1), widest at basal 1/5, rather strongly roundly narrowed anteriad; apex widely, shallowly emarginate, finely bordered and rimmed; base nearly straight, weakly produced in middle, truncate opposite scutellum, slightly sinuous in lateral parts; sides steeply declined to lateral margins, which are gently, roundly produced ventrad, bordered and finely rimmed, the rims visible from above only in posterior halves; front angles subrectangular, hind angles obtusely angular; disc moderately convex, noticeably microsculptured, rather closely, irregularly scattered with round, small punctures, and with a pair of small, oblique impressions close to base. Scutellum equilateral triangular, weakly convex, microsculptured, sparsely, irregularly scattered with minute punctures.

Elytra subovate, though the basal portion is truncate, 1.43 times as long as wide, 3.86 times the length and 1.33 times the width of pronotum, widest at basal 3/8; dorsum strongly convex, highest at basal 1/4; disc punctate-striate, the striae fine and sometimes discontinued, the punctures small and closely set in interior portion, becoming larger and sparser laterad; intervals slightly convex, weakly microsculptured, transversely micro-aciculate, scattered with minute punctures; humeri moderately swollen; apices very weakly, roundly produced.

Terminal segment of maxillary palpus subtriangular, weakly rounded exterior side about 0.8 times the length of nearly straight interior side, and also about 0.8 times the length of slightly curved apex. Mentum obtrapezoidal, strongly convex in antero-medial part, depressed in lateral parts, microsculptured, sparsely pubescent. Gula triangular, longitudinally impressed in medial part, with a pair of impressions on lateral borders.

Prosternum very short; apex widely V-shaped in middle, ridged along margin; area between procoxae raised and microsculptured, deeply, longitudinally depressed in medial part, each side of the depression raised and produced laterad; prosternal process bluntly produced, apex with a granule. Mesoventrite short; anterior part strongly depressed, ruguloso-punctate; medial part nearly vertically, triangularly elevated, each end of the elevation with a small lump; posterior part nearly flattened, with an inverted U-shaped impression. Metaventrite rather short, gently convex widely in middle, with a longitudinal medial impression in basal 3/4; anterior parts finely punctate and longitudinally aciculate in middle, depressed and coarsely punctate laterad; medial and posterior parts microsculptured and sparsely, minutely punctate; lateral parts inclined, rugose laterad. Abdomen rather broad; two basal ventrites and lateral parts of 3rd longitudinally wrinkled, major medial part of 3rd and major basal part of 4th very weakly, transversely punctate, apical part of 4th finely punctate; anal ventrite weakly convex and microsculptured in medio-basal part, obliquely depressed and minutely punctate in lateral parts, triangularly depressed and minutely punctate in apical part, with apical margin rounded.

Femora subclavate, scattered with small, minutely haired punctures; protibia slightly becoming bolder apicad, weakly curved ventrad, with intero-ventral face rather inconspicuously haired in apical 1/3; mesotibia slightly becoming bolder apicad, weakly curved intero-ventrad, with interior face haired in apical 1/3; metatibia gently curved, with interior face haired in apical 1/3; length ratios of pro-, meso- and metatarsal segments: 0.24, 0.17, 0.15, 0.13, 0.52; 0.40, 0.25, 0.22, 0.20, 0.50; 0.89, 0.32, 0.24, 0.53.

Genitalia elongated subfusiform, 2.32 mm in length, 0.36 mm in width; basale rather strongly curved in lateral view; apicale elongated triangular, 0.54 mm in length, longitudinally impressed on midline, closely, minutely punctate in anterior parts, apical parts roundly subspatulate.

F e m a l e: Antennae shorter, diameter wider, terminal segment of maxillary palpus less strongly dilated, legs not modified.

Body lengh: 6.4-8.0 mm.

Holotype: \lozenge , "Maliburu (Taimali, Taitung, Taiwan) / 26. VI. 1986 / K. MASUMOTO leg. // Coll. Masumoto / 2001" (NSMT). Paratypes: 2 $\lozenge\lozenge\lozenge$, 1 \lozenge , same data as for the holotype; 1 \lozenge , 1 \lozenge , same locality and collector, 28.IV.1986.

Notes. This new species somewhat resembles Amarygmus (A.) taiwanus (MASUMOTO, 1981) (Figs. 7, 24–26), originally described from Wulai, northern Taiwan. The new species can be distinguished from A. (A.) taiwanus by the body darker in color, the antennae slenderer, the clypeus longer but narrower, more strongly convex, and more strongly punctate, the fronto-clypeal suture more distinctly impressed, the posterior portion of the head less strongly punctate, the eyes more strongly, and triangularly inlaid into the head, the pronotum wider in the basal portion and more noticeably becoming narrower apicad, the antero-lateral portions rather strongly inclined, and the front angles more strongly produced, the scutellum weakly convex, the elytra more strongly, and sericeously shining with noticeably strong iridescent reflection, the elytral intervals more noticeably scattered with fine punctures, and the male genitalia slenderer (about 2.2 mm in A. (A.) taiwanus) and less strongly curved in lateral view.

Etymology. The specific epithet of the present new species is named after the area where the type series were collected.

Amarygmus (Amarygmus) yangmingensis sp. nov.

(Fig. 8)

F e m a l e: Body subovate, strongly convex dorsad; anterior portion of head brownish black, posterior portion of head, scutellum and elytra black with feeble dark coppery tinge, pronotum black with dark purplish luster in major portion, dark violet luster in medio-lateral portions and along anterior and posterior margins, femora and tibiae brownish black, tarsi and antennae dark reddish brown; head weakly, slightly sericeously shining, pronotum strongly, metallically shining, scutellum and elytra moderately, slightly sericeously shining, five basal segments of antennae, major portion of ventral side, and legs moderately shining, the remaining segments of antennae rather mat; each surface mostly glabrous, several apical segments of antennae finely haired, intero-ventral face of tibiae and ventral face of tarsi densely, rather setiferously haired.

Head almost vertical in repose, strongly inlaid into pronotum, microsculptured, closely, finely punctate; clypeus obtrapezoidal, depressed in basal part, gently convex in middle, weakly inclined ventrad in apical and lateral parts, sparsely pubescent in apical part; fronto-clypeal suture nearly straight and strongly impressed in middle, the impression curved anteriad and becoming thinner in lateral parts, and reaching exterior margins; genae oblique, nearly flattened, minutely punctate, with ex-



terior margins very weakly produced; frons rather wide, gently convex, steeply declined to fronto-clypeal suture, with a weak subovate depression in postero-medial part; vertex rather closely punctulate. Eyes somewhat comma-shaped in dorsal view, convex laterad, strongly, roundly inlaid into head, with diatone about 0.9 times the width of eye diameter. Antennae subfiliform but slightly becoming bolder apicad, length ratio from basal to 10th segments (11th segment missing in the holotype): 0.35, 0.20, 0.34, 0.26, 0.24, 0.32, 0.32, 0.30, 0.28, 0.27, –.

Pronotum subtrapezoidal with gently rounded sides, wider than long (2:1), widest at basal 1/5; apex nearly straight widely in middle, weakly curved anteriad in lateral portions, very finely bordered and rimmed; base very widely triangular, weakly produced in middle, truncate opposite scutellum, slightly sinuous in lateral parts; sides steeply declined to lateral margins, which are gently, roundly produced, clearly bordered and finely rimmed, the rims hardly visible from above; front and hind angles subrectangular; disc rather strongly convex, microsculptured, closely scattered with round, small punctures. Scutellum equilateral triangular, very weakly convex in medial part, weakly microsculptured, sparsely, irregularly scattered with minute punctures.

Elytra subovate, though the basal portion is truncate, 1.61 times as long as wide, 4.38 times the length and 1.25 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 2/9; disc punctate-striate, the striae fine but continued, the punctures rather small and not so closely set, size and separation nearly equal almost everywhere; intervals slightly convex, weakly microsculptured, sparsely scattered with minute punctures (barely visible under 30 times magnification); humeri moderately swollen; apices very weakly, roundly produced.

Terminal segment of maxillary palpus subtriagular, weakly rounded exterior side about 1.2 times the length of nearly straight interior side, almost of the same length of slightly curved apex. Mentum obtrapezoidal with slightly rounded sides, strongly convex in antero-medial part, depressed in lateral parts, microsculptured, sparsely pubescent. Gula triangular, depressed and finely depressed in medio-basal part, with a pair of impressions on lateral borders.

Prosternum very short; apex widely V-shaped, ridged along apical margins; area between procoxae raised and granulate, deeply, longitudinally depressed in medial part, each side of the depression swollen; prosternal process depressed and bluntly produced, with sharp apex. Mesoventrite very short; anterior part strongly depressed, ruguloso-punctate; medial part nearly vertically, triangularly raised, with anterior margin ridged; posterior part nearly flattened, with an U-shaped impression close to base. Metaventrite rather short, gently convex widely in middle, with a longitudinal medial impression in basal 2/3; anterior parts sparsely scattered with large, finely haired punctures in middle, inclined and ruguloso-punctate laterad; medial and posterior parts microsculptured and sparsely, minutely punctate; lateral parts microsculptured and irregularly punctate. Abdomen rather broad, rather closely punctate, the punctures large and coarse on two basal ventrites, becoming finer from 3rd to anal ventrite; two basal ventrites and lateral parts of 3rd longitudinally wrinkled, major medial part of 3rd weakly, transversely rugose, major basal part of 4th rather noticeably microsculptured, apical marginal part of 4th minutely punctate; anal ventrite weakly microsculptured and sparsely, minutely punctate, weakly convex in medio-basal part, weakly depressed in lateral parts, pubescent near apex on each side, with apical margin rounded.

Femora subclavate, scattered with small, minutely haired punctures; protibia slightly becoming bolder apicad, weakly curved ventrad, with intero-ventral face haired, the hairs noticeably becoming denser in apical 1/3; mesotibia slightly becoming bolder apicad, weakly curved intero-ventrad, with interior face haired, the hairs becoming denser in apical 1/3; metatibia gently curved, with interior face haired, the hairs becoming denser in apical 2/5; length ratios of pro-, meso- and metatarsal segments: 0.21, 0.17, 0.15, 0.13, 0.54; 0.39, 0.22, 0.17, 0.15, 0.48; 0.99, 0.30, 0.18, 0.52.

Male: Unknown. Body length: 7.4 mm.

Holotype: ♀, "Yangmingshan (Taipei, Taiwan) / 28. VI. 1986 / K. MASUMOTO leg. // Coll. Masumoto / 2001" (NSMT).

Notes. This new species somewhat resembles Amarygmus (Amarygmus) izumii (MASUMOTO, 1981) (Figs. 9, 27–28), originally described from Mt. Banna-dake, Ishigaki Is., Ryukyu Islands. The new species can be distinguished from A. (A.) izumii by the body slightly larger, and more strongly convex dorsad, the elytra obviously punctate-striate, and the intervals weakly but conspicuously convex while inconspicuously, and minutely punctate. Incidentally, the size of the male genitalia of A. (A.) izumii is 2.01 mm in length, and 0.40 mm in width.

ANDO and BREMER (2014) recorded the occurrence of A. (A.) izumii in Taiwan, though the possibility of which we think is very low.

Etymology. The specific epithet of the present new species is named after the area where the holotype was collected.

Plesiophthalmus (Plesiophthalmus) taiwanus Nomura, 1964

(Figs. 10, 29-30)

Plesiophthalmus spectabilis subsp. taiwanus Nomura, 1964: 49.

Notes. Nomura (1964) described *Plesiophthalmus spectabilis* subsp. *taiwanus* from Mt. Taiheizan (= Taipingshan) in North Taiwan. He only mentioned that the subspecies differs from the nominotypical subspecies by the elytral intervals convex, and minutely and obsoletely punctate.

On the present occasion we have carefully examined "taiwanus" collected from areas near to the type locality, and finally concluded that the Taiwanese subspecies should be upgraded to a valid species due to the distinguishable characteristics as follows: head a little narrower, with eyes more closely approximate; pronotum wider, without a pair of oblique depressions close to base; elytral intervals more strongly convex, transversely aciculate; legs longer, profemoral spine blunt, interior side of protibia more noticeably gouged in anterior 3/5; male genitalia shorter (4.18 mm in length and 1.18 mm in width) with bolder basale.

Specimens examined: 1 ♂, "Luolan / Yilan Hsien / Taiwan / 28-vi-1981 / C. Yu leg."; 2 ♂♂, 1 ♀, "Mt. Kuantoushan / Nantou, Taiwan / 15. Vi. 1993 / Luo Chinchi leg."; 1 ♂, "near Palin [sic: = Paling] / (800–1000m) / Taoyuan Pr., TAIWAN / 26. VII. 1984 / Katsumi AKITA leg. // Katsumi AKITA / Collection / KAC 11525"; 1 ♀, "台湾 (Taiwan), 烏来 (Ulai) / 22-23. VI. 1971, leg. T. Okumura"; 1 ♂, "Nanshanchi / 17-VI-1977 / J. L. Du"; 1 ♂, "Nanshanxi / (Formosa) / Date: VII. 10. 1973 / 杜金竜 (Du J. L.) & K. MASUMOTO leg."; 1 ♀, "Nanshanxi / (Formosa) / Date: VIII. 20. 1974 / 杜金竜 (Du J. L.)".

Plesiophthalmus (Plesiophthalmus) kentingensis sp. nov.

(Figs. 11, 31-32)

M a l e: Body subovate, strongly convex dorsad; almost wholly black, antennae, mouth parts and legs slightly brownish; dorsal surface rather strongly, slightly sericeously shining, five basal segments of antennae moderately shining and six apical segments rather mat, ventral side weakly shining; each surface mostly glabrous, six apical segments of antennae finely haired, intero-apical faces of tibiae haired, ventral face of tarsi densely haired.

Head weakly microsculptured; clypeus somewhat transversely oppentagonal, depressed in basal

part, raised in middle, produced ventrad and subparallel-sided in apical part, irregularly punctate, each puncture with a decumbent hair; fronto-clypeal suture roundly impressed, the impression interrupted at middle, becoming finer and reaching lateral margins; genae obliquely subovate, rather strongly raised antero-laterad, minutely punctate, with external margins weakly produced; frons somewhat T-shaped, steeply inclined anteriad, irregularly punctate in anterior and medial parts, rather sparsely so in posterior part; vertex flattened and finely punctate. Eyes somewhat transversely comma-shaped in dorsal view, convex laterad, obliquely, widely inlaid into head, with diatone about 0.27 times the width of eye diameter. Antennae subfiliform, tip of terminal segment reaching basal 2/5 of elytra, length ratio of basal to apical segments: 0.81, 0.22, 1.64, 0.96, 1.27, 1.18, 1.14, 0.99, 0.89, 0.80, 0.98.

Pronotum subtrapezoidal with rounded sides, wider than long (3:2), widest at middle; apex very slightly, widely emarginate, finely impressed and rimmed; base weakly produced in middle, truncate opposite scutellum, sinuous in lateral parts, hardly bordered; sides gently declined to lateral margins, which are rimmed, the rims visible from above; front angles rectangular, hind angles obtusely angular; disc gently, rather transversely convex, weakly microsculptured, minutely punctate, with impunctate areas longitudinally in middle and obliquely in lateral portions. Scutellum triangular with rounded sides, weakly convex, sparsely scattered with minute punctures.

Elytra slightly elongated ovate, though the basal portion is truncate, 1.87 times as long as wide, 3.88 times the length and 1.38 times the width of pronotum, widest at middle; dorsum rather strongly convex, highest slightly before basal 1/4; disc punctate-striate, the striae fine, the punctures small and close in interior portion, becoming larger and sparser laterad; intervals gently convex, microsculptured, weakly, transversely aciculate, scattered with minute punctures, which are smaller than those on pronotum; lateral portions weakly oppressed from sides at basal 1/3; humeri gently swollen; apices rounded.

Terminal segment of maxillary palpus triangular, with nearly straight exterior side about 1.83 times the length of the nearly straight interior, 0.85 times the length of roundly curved apex. Mentum subcordate, though the basal part is truncate, raised medio-anteriad, weakly microsculptured, minutely punctate, each puncture with a fine decumbent hair. Gula parabolically bordered, weakly depressed, rather smooth.

Prosternum short; apex very widely emarginate, noticeably rimmed; medial part strongly raised, longitudinally subrhombical, longitudinally grooved in middle; prosternal process triangularly produced and inclined posteriad, microgranulate, pointed at apex. Mesoventrite short; anterior part strongly depressed and concealed under prosternum, closely punctate; medial part strongly, triangularly depressed; posterior part strongly raised, with a pair of short longitudinal impressions. Metaventrite rather short, obliquely micro-aciculate, scattered with minute punctures, those in antero-lateral parts large and close; anterior part depressed, weakly microsculptured; medial and posterior parts convex, weakly depressed at middle, with a longitudinal impression in posterior 2/3 along midline. Abdomen rather broad, microsculptured, closely scattered with microscopic punctures, each with a minute hair; 1st and 2nd ventrites, lateral parts of 3rd and 4th longitudinally wrinkled; anal ventrite closely and finely punctate, rather noticeably pubescent in apico-lateral parts, with apex truncate.

Legs rather stout; profemur with spine at apical 2/5 on anterior face; protibia gently prolonged and curved, with interior face becoming bolder in apical 3/5 and rather densely haired in apical part; length ratios of pro-, meso- and metatarsal segments: 0.70, 0.28, 0.30, 0.33, 1.60; 1.50, 0.62, 0.48, 0.43, 1.78; 2.28, 0.69, 0.53, 1.72.

Genitalia subfusiform in dorsal view, 4.60 mm in length, 1.22 mm in width; basale longitudinally convex, weakly curved in lateral view; apicale 1.19 mm in length, strongly narrowed in apical half, with apices somewhat spatulate.

F e m a l e: Diatone wider, protibiae and anal ventrite without modification.

Body length: 20.0-22.1 mm.

Notes. This new species closely resembles *Plesiophthalmus* (*Plesiophthalmus*) taiwanus Nomura, 1964, widely distributed in northern and central Taiwan, but can be distinguished from the latter by the body above more strongly, sericeously shining, the head a little wider and more noticeably punctate, the pronotum with apex more noticeably emarginate, the elytra less strongly microsculptured and less frequently aciculate, the legs obviously bolder with the spine of the profemur sharper, and the male genitalia obviously longer, with the apicale wider.

Etymology. The specific epithet of the present new species is named after the place where the type series were collected.

Plesiophthalmus (Plesiophthalmus) lalashanus sp. nov.

(Figs. 12, 33-34)

M a 1 e: Body subovate, strongly convex dorsad; head, pronotum, scutellum and legs almost black, antennae, mouth parts, elytra and ventral side blackish brown, hairs on surfaces golden yellow to brownish yellow; dorsal surface rather strongly, slightly sericeously shining, five basal segments of antennae moderately shining and six apical segments rather mat, ventral side moderately to rather weakly shining; each surface mostly glabrous, antennae finely haired (the hairs becoming denser apicad), intero-apical faces of tibiae rather densely haired, tarsi, particularly on ventral faces, densely haired.

Head somewhat transversely elliptical; clypeus semicircular, flattened in major basal part, gently produced ventrad and subparallel-sided in apical part, irregularly clothed with decumbently haired punctures, with an impunctate area across fronto-clypeal suture; fronto-clypeal suture weakly impressed, moderately curved; genae strongly, obliquely raised, minutely punctate, with external margins obtusely produced; frons somewhat T-shaped, steeply inclined anteriad, weakly convex in inter-ocular space, rather closely, irregularly punctate, the punctures becoming smaller posteriad; vertex weakly depressed in medial part, finely punctate. Eyes somewhat transversely comma-shaped in dorsal view, convex laterad, obliquely, widely inlaid into head, with diatone about 0.13 times the width of eye diameter. Antennae subfiliform, tip of terminal segment reaching basal 1/4 of elytra, length ratio of basal to apical segments: 0.78, 0.23, 1.81, 1.03, 1.42, 1.37, 1.23, 0.97, 0.79, 0.67, 0.80.

Pronotum subtrapezoidal with rounded sides, wider than long (3:2), widest at middle; apex very slightly, widely emarginate, finely impressed and rimmed; base weakly produced in middle, slightly truncate opposite scutellum, sinuous in lateral parts, hardly bordered; sides gently declined to lateral margins, which are finely rimmed, the rims visible from above; front angles obtusely angular, hind angles also obtusely angular; disc gently, rather transversely convex, impressed in somewhat U-shape in basal 2/5, weakly microsculptured, irregularly scattered with minute punctures, which are partly connected by shallow rugulosities. Scutellum triangular with rounded sides, weakly elevated, sparsely

scattered with minute punctures.

Elytra slightly elongated ovate, though the basal portion is truncate, 1.68 times as long as wide, 3.72 times the length and 1.51 times the width of pronotum, widest at 3/8; dorsum rather strongly convex, highest slightly before basal 3/8; disc punctate-striate, the striae fine, the punctures small and close in interior portion, becoming a little larger and sparser laterad; intervals gently convex, very weakly microsculptured and transversely aciculate, scattered with minute punctures, which are far smaller than those on pronotum; lateral portions weakly oppressed from sides at basal 3/8; humeri gently swollen; apices rounded.

Terminal segment of maxillary palpus almost right-triangular, with nearly straight exterior side 1.80 times the length of the nearly straight interior, 0.87 times the length of roundly curved apex. Mentum subcordate, though the basal part is slightly truncate, raised medio-anteriad, weakly depressed in lateral parts, microsculptured, sparsely, minutely punctate, each puncture with a fine decumbent hair. Gula somewhat parabolically bordered, weakly depressed, rather smooth in anterior part, finely microsculptured and rugulose in basal part, rather strongly impressed on lateral borders.

Prosternum rather short; apex very widely emarginate, noticeably rimmed; medial part longitudinally grooved in middle, strongly raised on each side of the groove; prosternal process roundly produced and inclined posteriad, very weakly microsculptured, sparsely clothed with minute hairs. Mesoventrite rather short; anterior part strongly depressed and concealed under prosternum, microsculptured, minutely punctate and clothed with minute decumbent hairs; medial part strongly, triangularly depressed; posterior part rather strongly raised, flattened in middle, with a pair of shallow, longitudinal impressions. Metaventrite rather short, weakly microsculptured, with a median line impressed in posterior half; anterior part depressed, sparsely scattered with minute punctures; medial part convex, and weakly depressed in middle, obliquely micro-aciculate laterally; posterior part rather noticeably punctate. Abdomen rather broad, microsculptured, closely scattered with minute punctures, each with a minute hair; lateral parts of 1st to 3rd ventrites longitudinally wrinkled; anal ventrite sericeous, closely and finely punctate and haired, rather noticeably pubescent in apico-lateral parts, triangularly depressed near apex, which is noticeably truncate, the truncation very slightly emarginate.

Legs rather stout; profemur with spine at apical 2/5 on anterior face; protibia gently prolonged and curved, with interior face becoming bolder, gently gouged, and rather densely haired in apical 3/5, and gently produced at basal 2/5; length ratios of pro-, meso- and metatarsal segments: 0.62, 0.32, 0.31, 0.32, 1.40; 1.61, 0.62, 0.33, 0.31, 1.51; 2.81, 0.72, 0.52, 1.68.

Genitalia subfusiform in dorsal view, 5.41 mm in length, 1.25 mm in width; basale longitudinally convex, weakly curved in lateral view; apicale 1.60 mm in length, triangular in basal 2/3, strongly prolonged, narrowed in apical 1/3, with apices subspatulate.

Female: Unknown.

Body length: 23.2 mm.

Holotype: \circlearrowleft , "Mt. Lalashan / Taoyuan Prefect. / N. TAIWAN / 16. VII. 1985 / J. LUO leg. // K. AKITA / Collection / KAC 90154". (NSMT).

Notes. This new species can be distinguished from two allied species, *Plesiophthalmus* (*Plesiophthalmus*) taiwanus Nomura, 1968, and the preceding new species, *P.* (*P.*) kentingensis sp. nov., by the eyes obviously larger, the protibiae with interior faces rather noticeably produced at basal 1/3, the tarsi slenderer, and the genitalia conspicuously different in shape. It is very interesting that *P.* (*P.*) taiwanus occurs in Paling, at the foot of Mt. Lalashan.

Etymology. The specific epithet is named after the place where the holotype was collected.

Plesiophthalmus (Inspinogeton) suzukii (MASUMOTO, AKITA et LEE, 2014), comb. nov.

Amarygmus (Pyanirygmus) suzukii MASUMOTO, AKITA et LEE, 2014: 237.

Notes. Following the newer treatment by Bremer and Lillig (2014), we transfer *Amarygmus* (*Pyanirygmus*) suzukii MASUMOTO, AKITA et LEE, 2014 to *Plesiophthalmus* (*Inspinogeton*).

Plesiophthalmus (Plesiophthalmus) uenoi MASUMOTO, 1981

 $\textit{Plesiophthalmus taiwanus} \ \text{Masumoto, 1981 a: 28 [nec} \ \textit{P. spectabilis taiwanus} \ \text{Nomura, 1964]}.$

Plesiophthalmus uenoi MASUMOTO, 1981 b: 93. [nom. nov].

Pseudoogeton uenoi: MASUMOTO, 1989: 310.

Notes. The genus *Pseudoogeton* was erected for *Plesiophthalmus amplipennis* FAIRMAIRE, 1897, by MASUMOTO (1989), and *Pseudoogeton uenoi* (MASUMOTO, 1981) has been regarded as a member of *Pseudoogeton* for a long time. We have been re-examining the systematic position of this species and finally concluded that *P. uenoi* should be placed in a member of *Plesiophthalmus*.

Members of the genus *Pseudoogeton*, which mainly inhabit in West China possess the body weakly convex dorsad, the humeral portions distinctly reduced, the antennae not so slender, the male protibiae not so slender, with intero-ventral faces neither gouged nor angulate. Meanwhile, *Pseudoogeton uenoi* possesses the body strongly convex, the humeral portions only weakly reduced, and the male protibiae slender, with intero-ventral faces gouged in apical parts, and angulate at the basal parts of gouged areas. Except for being apterous, *P. uenoi* possesses common characters to those of *Plesiophthalmus*. Therefore we think that the ansesstor of this species is a member of the genus *Plesiophthalmus*, which is distributed in Taiwan.

要 約

益本仁雄・秋田勝己・李 奇峰:台湾産ゴミムシダマシ科甲虫の新種(鞘翅目). (11) 6新種の記載,3種の分類学的扱い. — 台湾産ゴミムシダマシ亜科キマワリ族の6種 Amarygmus (Amarygmus) wangi sp. nov., A. (A.) nantouensis sp. nov., A. (A.) maliburuensis sp. nov., A. (A.) yanmingensis sp. nov., Plesiophthalmus (Plesiophthalmus) kentingensis sp. nov. および P. (P.) lalashanus sp. nov. を新種と認め、命名記載した。また、日本に分布するクロツヤキマワリ Plesiophthalmus spectabilis HAROLD, 1875の台湾亜種として記載された P. spectabilis taiwanus NOMURA, 1964を独立種として認め、Plesiophthalmus (Plesiophthalmus) taiwanus NOMURA, 1964とした。今回記載した P. (P.) kentingensis sp. nov. と P. (P.) lalashanus sp. nov. の2種は、いずれもこれに近縁な種で、おそらく側所的に分布するものと思われる.

また, Bremer and Lillig (2014) の処置に従って, Amarygmus (Pyanirygmus) suzukii Masumoto, Akita et Lee, 2014 を Plesiophthalmus (Inspinogeton) suzukii (Masumoto, Akita et Lee, 2014), comb. nov. とした. さらに, Pseudoogeton uenoi (Masumoto, 1981) を Pseudoogeton のタイプ種と比較検討し, 記載時の属に戻し Plesiophthalmus (Plesiophthalmus) uenoi Masumoto, 1981 とした.

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