

Additions to *Plesiophthalmus* and its Allied Genera (Coleoptera, Tenebrionidae, Amarygmni) from East Asia, Part 2

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Abstract This is the second part of the study of *Plesiophthalmus* and its allied genera. Eight new species of the genus *Plesiophthalmus*, a new species of *Javamarygmus*, and also a new species of *Euspinamarygmus* are described from East Asia. They are named as follows: *Plesiophthalmus yukae* sp. nov., *P. gaoligongensis* sp. nov., *P. kumei* sp. nov., *P. caobangensis* sp. nov., *P. thaiperpulchrus* sp. nov., *P. evae* sp. nov., *P. tsugeae* sp. nov., *P. violaceisimilis* sp. nov., *Javamarygmus kumei* sp. nov., and *Euspinamarygmus bremeri* sp. nov.

This paper is the second part of the additional study on the *Plesiophthalmus* and its allied genera from East Asia. I am going to describe ten new species of this group.

Besides my collection, the materials examined are submitted to me for the present study from Mr. Stanislav BEČVÁŘ, Czech Academy of Sciences, Dr. Hans J. BREMER, Melle, Germany, Dr. Giulio CUCCODORO, Muséum d'Histoire naturelle, Genève, Mrs. Jane BEARD, the Natural History Museum, London, Messrs. Kunio KUME, Tokyo, Hanmei HIRASAWA, Nagano Pref., Minoru TAO, Yokohama and Hideo AKIYAMA, Yokohama, to all of whom I wish to express my heartfelt thanks. Thanks are also due to Dr. Makoto KIUCHI, Institute of Sericultural and Entomological Science, Tsukuba City, for taking very beautiful photographs inserted in this paper. Finally, I appreciate Dr. Shun-ichi UENO, National Science Museum (Nat. Hist.), Tokyo, for constant guidance to my taxonomic study.

The holotypes will be deposited in the museums cited in the text. Abbreviations used for the depository of the types are the same as shown in the part one of this series (1999, p. 357).

I. Genus *Plesiophthalmus* MOTSCHULSKY, 1857

Plesiophthalmus yukae sp. nov.

(Figs. 1–2, 12–13)

Piceous; male:— head and scutellum bluish black, pronotum dark bluish violet, elytra deep violet, each sternum with bluish or greenish tinge, abdomen partly with bluish reflection, legs dark blue, dorsal surface vitreously shining, ventral surface mod-

erately to weakly shining; female:— head dark blue and partly golden green, pronotum deep violet, scutellum dark blue and partly violet, elytra deep purple with golden reflection laterally under certain light, ventral surface dark green to blue, dorsal surface strongly shining, ventral surface moderately so. Ovate; strongly convex above, and rather hunchbacked.

Head transversely elliptic, finely, rather closely punctate, partly micro-shagreened; clypeus semicircular and rather narrow, gently bent ventrad, fronto-clypeal border weakly, semicircularly impressed; genae oblique, rather strongly raised laterad, with produced outer margins; frons somewhat bold T-shaped, steeply inclined anteriorly, diatone about 0.5 times the width of the transverse diameter of an eye in male, 0.75 times in female. Eyes somewhat comma-shaped, gently convex laterad, roundly inlaid into head. Antennae subfiliform, reaching basal 1/4 of elytra in male, basal 1/5 in female, ratio of the length of each segment from basal to apical (in male): 0.68, 0.2, 1.25, 0.67, 1.1, 0.79, 0.66, 0.64, 0.58, 0.55, 0.77.

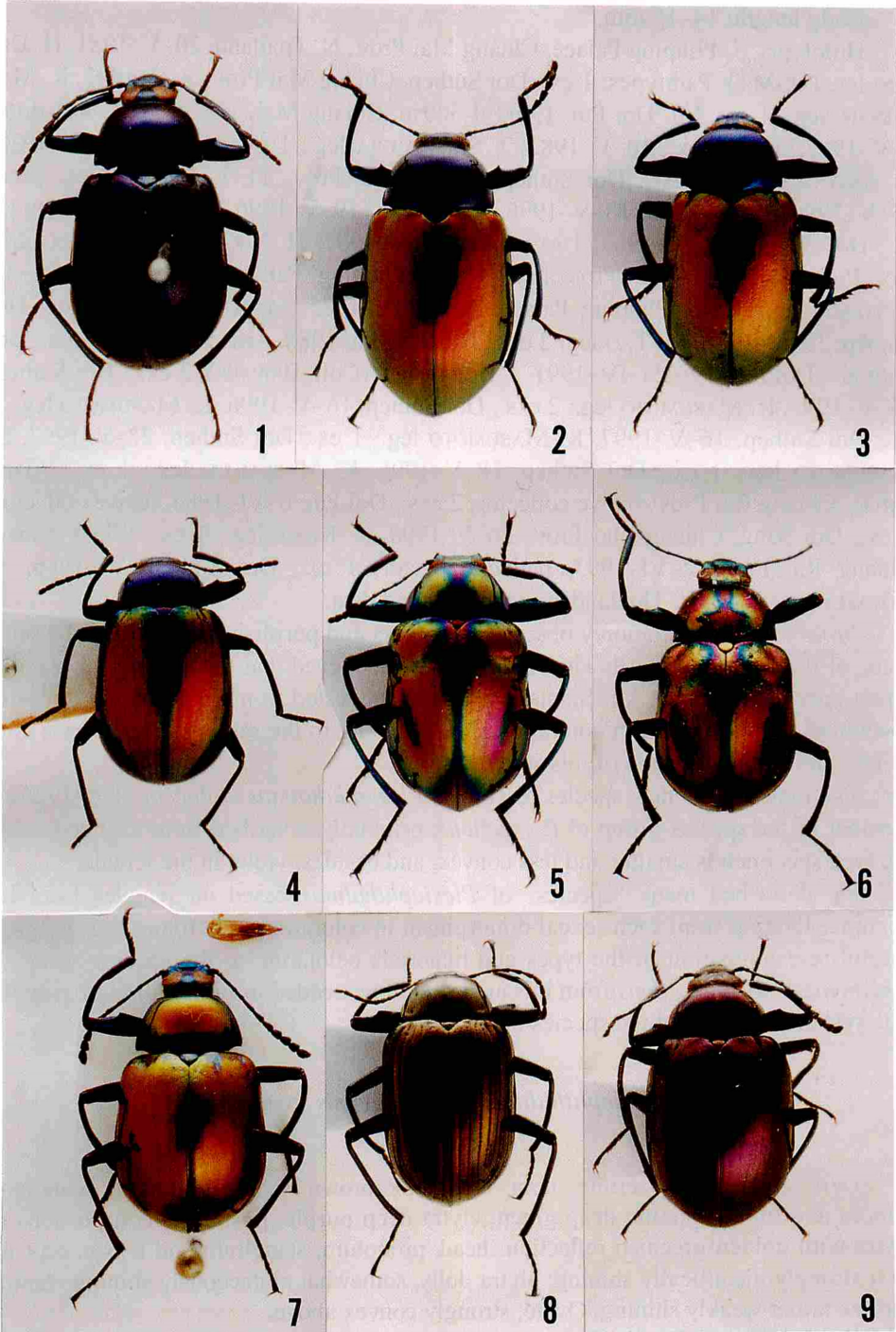
Pronotum 1.6 times as wide as long, widest at base, roundly narrowed apically; apex feebly sinuous on each side, bordered and rimmed; base gently produced, neither bordered nor margined, sinuous on each side; sides steeply declined to lateral margins, which are bordered and rimmed, though the rims are invisible from above in male, scarcely so in female; front angles subrectangular with acute corners, hind angles almost rectangular, with slightly produced corners; disc strongly convex, scattered with microscopic punctures. Scutellum wide triangular, irregularly scattered with small punctures, which are slightly larger than those on pronotum.

Elytra 1.32 times as long as wide, 2.78 times the length and 1.42 times the width of pronotum, widest at apical 1/3; dorsum strongly convex, highest slightly before the middle; disc micro-aciculate and unclearly micro-punctate, with rows of small punctures, 5th row impressed close to base; intervals almost flat; sides steeply inclined laterad, weakly compressed at basal 1/3, with lateral margins bordered and rimmed, the rims being visible from above; bases crenulate; humeri swollen; apices very slightly, roundly produced posteriorly.

Male anal sternite gently emarginate at apex. Anterior edge of profemur spined at apical 2/5; male protibia prolonged and curved anteriorly, with interior side noticeably gouged in basal half; male mesotibia curved anteriorly, with interior side weakly widened in apical 4/7; ratios of the lengths of pro-, meso- and metatarsomeres (in male): 0.6, 0.3, 0.25, 0.24, 0.22, 1.2; 0.8, 0.33, 0.26, 0.22, 1.22; 1.77, 0.58, 0.37, 1.29.

Male genitalia subfusiform, about 3.2 mm in length, 1.2 mm in width, weakly curved in lateral view; fused lateral lobes triangular, 1.5 mm in length, with prolonged apical parts, which are noticeably serrate laterally.

Figs. 1–9. Habitus. — 1–2. *Plesiophthalmus yukae* sp. nov.; 1, holotype, ♂; 2, paratype, ♀. — 3. *P. gaoligongensis* sp. nov., holotype, ♂. — 4. *P. kumei* sp. nov., holotype, ♂. — 5. *P. caobangensis* sp. nov., holotype, ♂. — 6. *P. thaiperpulchrus* sp. nov., holotype, ♂. — 7. *P. evae* sp. nov., holotype, ♂. — 8. *P. tsugeae* sp. nov., holotype, ♂. — 9. *P. violaceisimilis* sp. nov., holotype, ♂.



Body length: 14–15 mm.

Holotype: ♂, Phuping Palace, Chiang Mai Prov., N. Thailand, 20–V–1981, H. DETANI leg. (NSMT). Paratypes: 1 ex., Doi Suthep, Chiang Mai Prov., 8–V–1997, K. MASUMOTO leg.; 1 ex., Mt. Doi Pui, 1,400–1,500 m, Chiang Mai, 1–V–1982, 1 ex., ditto, 6–V–1982, ditto, 1 ex., 10–V–1982, T. SHIMOMURA leg.; 1 ex., Doi Pui, 24–V–1978, H. AKIYAMA leg.; 5 exs., Doi Suthep, Chiang Mai Prov., 11–V–1996, 3 exs., ditto, 15–V–1996, 2 exs., ditto, 18–V–1996, 1 ex., ditto, 19–V–1996, K. MASUMOTO leg.; 1 ex., Doi Suthep, 18–V–1987, 1 ex., ditto, 21–V–1987, H. HIRASAWA leg.; 1 ex., Mt. Doi Pui, V–1985, A. COTTON leg.; 1 ex., Phuping Palace, 20~21–V–1985, H. AKIYAMA leg.; 1 ex., Phuping Palace, 20~21–V–1985, M. SAWAI leg.; 2 exs., Doi Suthep, 10–V–1986, M. TAO leg.; 2 exs., Chiang Mai, 1988, native collector; 1 ex., Doi Suthep – Doi Pui, 19~23–IV–1991, J. HORÁK leg. (Coll. BREMER); 3 exs., Doi Suthep, 15–V–1996, K. MASUMOTO leg.; 2 exs., Doi Suthep, 16–V–1996, K. MASUMOTO leg.; 1 ex., Doi Suthep, 16–V–1997, K. MASUMOTO leg.; 1 ex., Doi Suthep, 22–V–1997, K. MASUMOTO leg.; 1 ex., Doi Suthep, 18–V–1996, K. MASUMOTO leg.; 1 ex., Wiang Papao, Chiang Rai Prov., native collector; 2 exs., Doi Pui, 6–VI–1984, native collector; 1 ex., Doi Sang, Chiang Mai Prov., 26–V–1990, K. KUME leg.; 1 ex., Wiang Papao, Chiang Rai Prov., 2–VI–1993, native collector; 1 ex., Doi Suthep, VI–1986, N. KOYAMA leg.; 1 ex., N. Thailand, no other detailed data.

Notes. I have commonly observed the violet and purplish specimens at the same place of the forests in North Thailand. At first, I believed that there occurred two different species. Recently, Mr. Stanislav BEČVÁŘ suggested to me that the two types of specimens quite different in coloration should belong to the same species. I have confirmed this on the occasion of this study.

The male of this new species resembles *Plesiophthalmus violaceus* (PIC, 1926), a member of the species-group of *P. excellens*, originally described from Cambodia, but the type specimen is smaller and less convex, and besides, violet in the female.

PIC described many “species” of *Plesiophthalmus* based on females from Indochina. Judging from such sexual dimorphism in coloration as is found in *P. yukae*, a careful re-examination of the types and materials belonging to the species-groups *P. tonkinensis* and *P. excellens* from this area should be needed in future for clarifying the true systematic status of the species involved.

Plesiophthalmus gaoligongensis sp. nov.

(Figs. 3, 14–15)

Dark green, anal sternite, tarsi, etc., dark brown, head, pronotum, scutellum, femora and tibiae metallic deep green, elytra deep purple, postero-lateral portions of elytra with golden greenish reflection; head, pronotum, scutellum and legs except for tarsi strongly metallically shining; elytra dully, somewhat alutaceously shining, ventral surface rather weakly shining. Ovate; strongly convex above.

Head transversely elliptical, closely, finely punctate; clypeus semicircular, bent

ventrad in apical half, fronto-clypeal border arcuate and finely impressed; genae obliquely subrhombical, strongly raised laterad, with outer margins obtusely angulate; frons steeply inclined forwards, shallowly impressed between eyes, diatone about 0.56 times as wide as the transverse diameter of an eye. Eyes somewhat comma-shaped, roundly inlaid into head, moderately convex laterad. Antennae subfiliform, reaching basal 1/3 of elytra, ratio of the length of each segment from basal to apical: 0.66, 0.5, 1.28, 0.65, 1.12, 0.67, 0.62, 0.59, 0.62, 0.48, 0.63.

Pronotum 1.5 times as wide as long, widest at base, gradually narrowed apicad; apex nearly straight though slightly sinuous on each side, rather boldly bordered and finely rimmed; base gently produced, sinuous on each side, not bordered, emarginate opposite to scutellum; sides rather steeply declined to lateral margins, which are clearly bordered and finely rimmed, the rims visible from above; front angles subrectangular with pointed corners, hind angles almost rectangular; disc strongly, slightly transversely convex, very shallowly impressed in middle, wholly polished but scattered with microscopic punctures. Scutellum triangular, slightly elevated, very feebly micro-shagreened, irregularly scattered with microscopic punctures, which are larger than those on pronotum, transversely impressed near apex.

Elytra 1.54 times as long as wide, 3.1 times the length and 1.36 times the width of pronotum, widest at apical 2/5; dorsum strongly convex, highest at basal 1/3; disc micro-shagreened and micro-aciculate, scattered with microscopic punctures, with rows of very small punctures, which are sparsely set and indistinct, 5th row impressed close to base; sides rather steeply declined to lateral margins, which are boldly bordered and finely rimmed; bases crenulate; humeri swollen; apices very slightly, roundly produced.

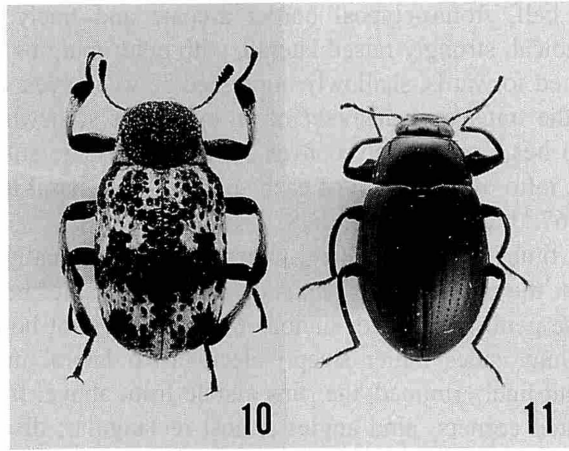
Male anal sternite weakly emarginate. Profemur spined at apical 2/5 on anterior edge; male protibia curved interiad, with interior face gouged in basal half; male mesotibia curved interiad, with interior face slightly thickened in apical 3/5; ratios of the lengths of pro-, meso- and metatarsomeres: 0.66, 0.27, 0.26, 0.23, 1.2; 0.83, 0.38, 0.35, 0.28, 1.2; 1.78, 0.58, 0.36, 1.29.

Male genitalia subfusiform, 4.2 mm in length, 1.2 mm in width, with basal piece weakly curved in lateral view; fused lateral lobes about 1.3 mm in length, with prolonged apical parts, which are finely serrate laterally.

Body length: 12.5–13 mm.

Holotype: ♂, 100 km W. of Baoshan, Gaoligongshan "Nature Reserve of China," Yunnan Prov., China, 14~21-V-1993, E. JENDEK & O. ŠAUŠA leg. (NMNHP). Paratype: 1 ex., same data as for the holotype.

Notes. This new species somewhat resembles the female of the preceding new species, *P. yucae* sp. nov., in coloration of both the sexes, but can be differentiated from the latter by the front angles of the pronotum with pointed corners, the scutellum transversely impressed near the apex, the elytra noticeably micro-shagreened and micro-aciculate, the sutural margins more strongly raised, and the differently shaped male genitalia.



Figs. 10–11. Habitus. — 10. *Javamarygmus kumei* sp. nov., holotype, ♀. — 11. *Euspinamarygmus bremeri* sp. nov., holotype, ♂.

***Plesiophthalmus kumei* sp. nov.**

(Figs. 4, 16–17)

Dark blue and partly green, head greenish blue, elytra dark blue with feebly greenish tinge, scutellum dark blue, elytra purple in major parts of the middle, outer margins of the purplish parts surrounded by golden green and greenish blue bands, humeral parts, sides near lateral margins and postero-lateral margins deep violet blue; dorsal surface strongly, metallicly shining, ventral surface gently, somewhat alutaceously shining. Ovate; strongly convex above.

Head ovate and transverse, weakly micro-shagreened, frequently scattered with microscopic punctures; clypeus rather transverse, depressed in basal 2/3, bent ventrad in apical 1/3, fronto-clypeal border slightly arcuate and strongly impressed; genae oblique, raised laterad, with rounded outer margins; frons rather wide, steeply inclined anteriorly, with a faint longitudinal impression in middle, diatone 1.2 times the width of the transverse diameter of an eye. Eyes subreniform, somewhat obliquely inlaid into head, convex laterad. Antennae subfiliform, feebly thickened apicad, ratio of the length of each segment from basal to apical: 0.59, 0.2, 1.12, 0.5, 0.74, 0.69, 0.67, 0.57, 0.46, 0.55, 0.69.

Pronotum 1.87 times as wide as long, widest at base, gradually narrowed apicad; apex very slightly emarginate and bisinuous, bordered, the border deepened laterad; base weakly produced and bisinuous, finely margined, almost straight opposite to scutellum; sides steeply inclined laterad, with lateral margins grooved and visible from above; front angles rectangular with rounded corners, hind angles rectangular with slightly produced corners; disc rather strongly, somewhat transversely convex, polished, scattered with very minute punctures. Scutellum triangular, slightly elevated,

very weakly micro-shagreened, sparsely scattered with microscopic punctures, which are larger than those of the pronotum.

Elytra 1.27 times as long as wide, 3.48 times the length and 1.5 times the width of pronotum, widest at apical 2/5; dorsum strongly convex, highest at basal 1/3; disc weakly micro-aciculate, very sparsely scattered with microscopic punctures, with rows of small punctures, which are often finely striated in the lateral parts, 5th row impressed close to base; intervals almost flat; sides steeply inclined laterad and enveloping hind body, with lateral margins grooved, and compressed slightly before the middle; bases slightly crenulate; humeri feebly swollen; apices slightly produced.

Male anal sternite finely impressed along outer margin, without sexual modification. Profemur spined at apical 1/3 on anterior edge; male protibia gouged on interior face in basal half; male mesotibia thickened in apical 2/5 of interior face; ratios of the lengths of pro-, meso- and metatarsomeres: 0.5, 0.24, 0.22, 0.21, 1.2; 0.63, 0.36, 0.29, 0.23, 1.23; 1.27, 0.38, 0.26, 1.36.

Male genitalia fusiform, 2.6 mm in length, 0.6 mm in width, noticeably curved in middle in lateral view; fused lateral lobes equilateral triangular, 0.75 mm in length, with apices strongly serrate laterally.

Body length: 10.3–12.5 mm.

Holotype: ♂, Tam Dao, N. Vietnam, 20–V–1995, K. KUME leg. (NSMT). Paratype: 1 ex., same data as for the holotype.

Notes. This new species resembles *P. semipurpureus* (PIC, 1917), a member of the species-group of *P. excellens*, originally described from Bengal. However, this can be differentiated from *P. semipurpureus* by the pronotal punctures much weaker, the elytra with noticeable deep violet blue patches in the postero-lateral parts, and the male genitalia with the apices distinctly serrate in the lateral parts.

Plesiophthalmus caobangensis sp. nov.

(Figs. 5, 18–19)

Dark blue, partly golden green or purple, head dark golden green with purplish central part, pronotum purple in lateral parts, deep blue in middle and postero-lateral parts, antero-internal parts and scutellum deep purple, elytra purple in humeral and postero-lateral parts, whose internal portions are yellowish green, though the coloration and reflection are distinctly changeable under certain light; dorsal surface strongly metallicly shining, ventral surface weakly, alutaceously so. Ovate; strongly convex above.

Head transversely elliptical, weakly micro-shagreened, rather irregularly scattered with small and microscopic punctures; clypeus semicircular, depressed in basal half, bent ventrad in apical half, fronto-clypeal border arcuate and finely impressed; genae obliquely rhombical, raised laterad, with obtuse outer margins; frons rather steeply inclined forwards in apical half, weakly flattened in posterior half in the area between eyes, longitudinally impressed at the middle of posterior part, diatone about 1.25 times

the width of the transverse diameter of an eye. Eyes somewhat comma-shaped, sub-hexagonally inlaid into head, convex laterad. Antennae subfiliform, though the apical five segments are clavate, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.58, 0.2, 1.35, 0.64, 0.79, 0.71, 0.69, 0.54, 0.44, 0.49, 0.63.

Pronotum 1.53 times as wide as long, widest at base, gradually narrowed apicad; apex nearly straight in dorsal view, clearly bordered; base gently produced, sinuous on each side, neither margined nor impressed, emarginate opposite to scutellum; sides gradually inclined laterad, with lateral margins grooved, gently reflexed, and easily visible from above; front angles subrectangular with rounded corners, hind angles subrectangular with hooked corners; disc rather strongly convex, very weakly micro-shagreened, scattered with small and microscopic punctures, which become larger and closer laterad. Scutellum subcordate, feebly convex, partly very weakly micro-shagreened, sparsely scattered with small punctures, transversely impressed near apex.

Elytra 1.29 times as long as wide, 2.76 times the length and 1.52 times the width of pronotum, widest at apical 4/9; dorsum strongly convex, highest at basal 1/3, rather transversely impressed at basal 1/4 on each side; disc very weakly micro-shagreened and micro-aciculate, scattered with microscopic punctures, with rows of small punctures, which are often oblong; intervals wide, almost flat; sides steeply inclined laterad, compressed at basal 1/3, with lateral margins punctate-grooved, feebly expanded laterad, and visible from above; bases crenulate; humeri convex transversely; apices very slightly produced posteriad.

Male anal sternite impressed along outer margin, truncate at apex. Profemur spined at apical 1/3 on anterior edge; male protibia rather strongly curved, gouged in basal 4/7 on interior face; male mesotibia gradually thickened apicad; ratios of the lengths of pro-, meso- and metatarsomeres: 0.48, 0.27, 0.25, 0.22, 1.2; 0.68, 0.62, 0.29, 0.27, 1.2; 1.52, 0.39, 1.22.

Male genitalia not modified, slightly elongated fusiform, 4.25 mm in length, 0.72 mm in width, weakly curved in middle in lateral view; fused lateral lobes nearly elongated equilateral triangular, 1.5 mm in length, with simple apical parts.

Body length: 12 mm.

Holotype: ♂, Cao Bang, N. Vietnam, 26~28-V-1995, M. ITO leg. (NSMT).

Notes. This new species is a member of the species-group of *P. perpulchrus* and resembles *P. pici* MASUMOTO, 1990, from N. Vietnam, but can be distinguished from the latter by the smaller body, with slenderer legs, the different elytral colour-patches, and the differently shaped male genitalia.

MASUMOTO (1990, p. 719) mentioned the species-group of *P. perpulchrus*, which consists of three species, *P. perpulchrus* (PIC, 1930) from Yunnan, *P. pici* MASUMOTO, 1990, from N. Vietnam, and *P. nishikawai* (MASUMOTO, 1981) from Taiwan. The Taiwanese one possesses a eumolpoid body with dorsal surface simply dark bronzy in colour and lacking iridescent patches. This species therefore should be excluded from the species-group and forms a new group together with *P. sparsepunctatus* (PIC, 1925), from North Vietnam.

Plesiophthalmus thaiperpulchrus sp. nov.

(Figs. 6, 20–21)

Dark blue and partly purple, head golden green with purplish patch medially, pronotum with purplish patches at antero-medial, antero-lateral and basal parts, each surrounded by rather golden and bluish areas, scutellum golden coppery, elytra with purplish patches in medio-basal, humeral and postero-lateral parts, each surrounded by golden and bluish areas, the postero-lateral patches with greenish blue parts in middle; dorsal surface strongly metallicly shining, ventral surface moderately shining, partly alutaceous. Ovate; strongly convex above, hunchbacked and rather eumolpoid.

Head ovate and somewhat transverse, rather closely punctate, sparsely scattered with microscopic punctures among larger ones; clypeus rectangular, depressed in basal part, weakly bent ventrad in apical half, fronto-clypeal border grooved and arcuate; genae obliquely rhombical, gently raised outwards, with obtusely angulate outer margins; frons gradually inclined apicad, faintly impressed in middle of posterior part, diameter 1.1 times the width of the transverse diameter of an eye. Eyes rather comma-shaped, roundly inlaid into head, convex laterad. Antennae subclavate, apical five segments widened, ratio of the length of each segment from basal to apical: 0.6, 0.2, 1.17, 0.56, 0.61, 0.63, 0.64, 0.49, 0.41, 0.39, 0.56.

Pronotum 1.43 times as wide as long, widest at base, roundly narrowed apicad; apex very slightly produced, bordered, the border becoming bolder laterad; base produced posteriad, slightly sinuous on each side, emarginate opposite to scutellum; sides steeply inclined laterad, with lateral margins punctate-grooved and visible from above; front angles rectangular, hind angles slightly obtuse; disc strongly convex, weakly micro-shagreened, irregularly scattered with small, round punctures, shallowly impressed in antero-medial part. Scutellum semicircular, feebly elevated though almost flat, sparsely scattered with small punctures.

Elytra 1.23 times as long as wide, 2.57 times the length and 1.36 times the width of pronotum, widest at apical 4/9; dorsum strongly convex, highest at basal 1/3, rather transversely impressed at basal 1/4 and faintly so close to base on each side; disc weakly micro-shagreened and micro-aciculate, scattered with microscopic punctures, with rows of small punctures; intervals not convex but partly slightly wrinkled; sides steeply inclined laterad, compressed at basal 1/3, with lateral margins finely expanded laterad, and visible from above in posterior 2/3; bases crenulate; humeri swollen postero-interiad; apices simply rounded.

Male anal sternite finely impressed along posterior margin, truncate at apex. Pro-femur spined at apical 1/3 on anterior edge; male protibia noticeably gouged in basal 3/5 of interior face; male mesotibia slightly gouged in basal 2/5 of interior face; ratios of the lengths of pro-, meso- and metatarsomeres: 0.3, 0.28, 0.26, 0.22, 1.2; 0.69, 0.36, 0.33, 0.31, 1.24; 1.5, 0.32, 0.3, 1.28.

Male genitalia weakly elongated fusiform, 3.7 mm in length, 0.65 mm in width, gently curved in lateral view; fused lateral lobes elongated equilateral triangular, 1.3

mm in length, with simply acute apices.

Body length: 11 mm.

Holotype: ♂, Doi Pui, 1,400–1,500 m alt., Chiang Mai Prov., N. Thailand, 18–VI–1983, T. SHIMOMURA leg. (NSMT). Paratypes: 1 ex., Phuping Palace – Doi Pui, N. Thailand, 2–V–1985, M. TAO leg.; 1 ex., near Chiang Mai, Thailand, 30–IV–1985, M. TAO leg.; 2 exs., Chiang Mai, Thailand, 1988, native collector; 1 ex., near Fang, 1,930 m alt., N. Thailand, 10–16–VI–1989, N. KOYAMA leg.

Notes. This new species is a member of the species-group of *P. perpulchrus* and resembles *P. pici* MASUMOTO, 1990, from N. Vietnam, but can be distinguished from the latter by the more strongly punctate pronotum, the more coarsely microsculptured elytra with different colour patterns, and the differently sized male genitalia (4.3 mm in length in *P. pici*).

It is worth noting that the two species belonging to the same species-group, *P. perpulchrus* PIC and this new species, are distributed in the same area, Doi Suthep – Doi Pui, Chiang Mai Prov., North Thailand.

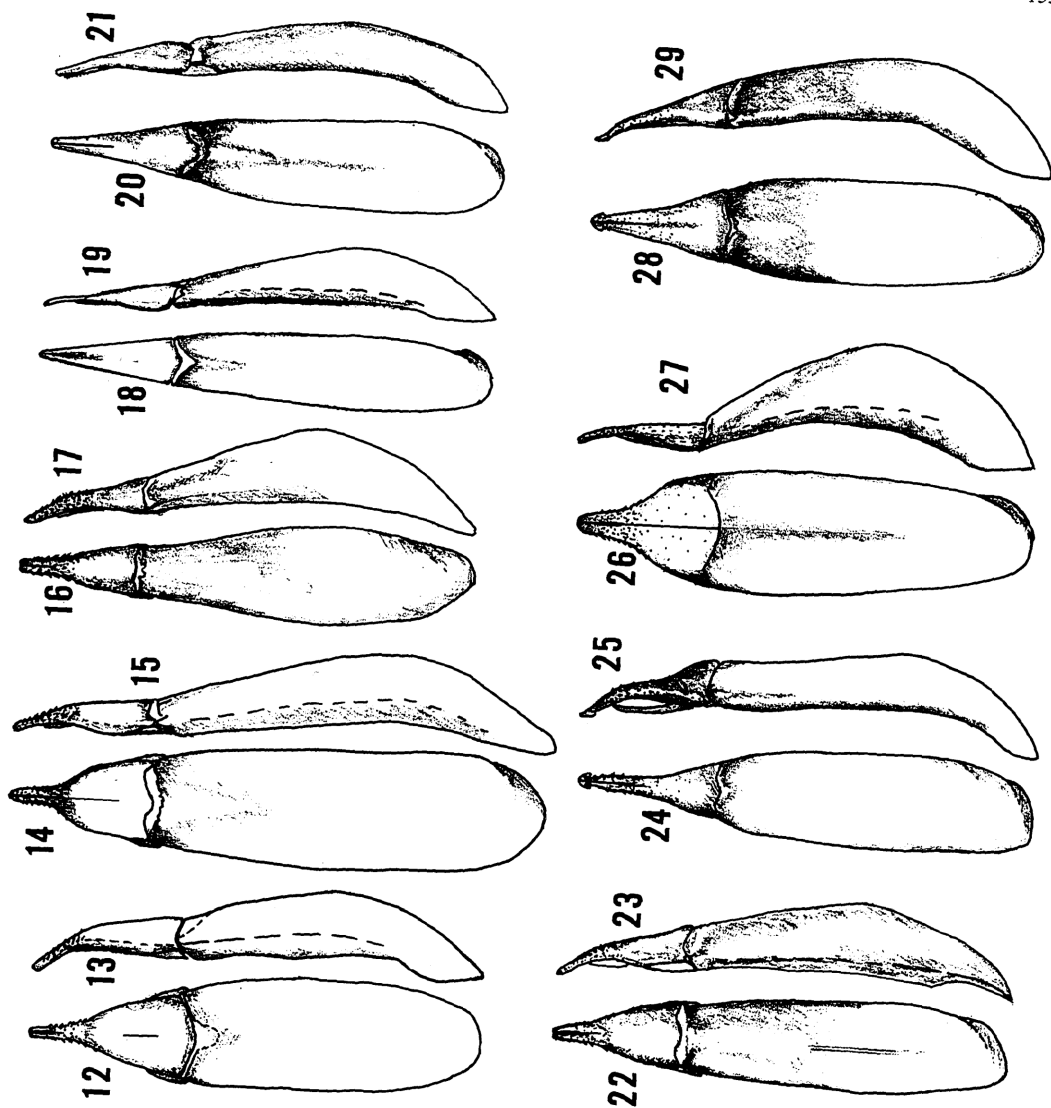
***Plesiophthalmus evae* sp. nov.**

(Figs. 7, 22–23)

Piceous with dark bluish reflection, head dark greenish blue, pronotum golden castaneous in major part of the middle, greenish or bluish in basal parts, and somewhat deep violet in lateral portions, scutellum partly bluish, greenish or violet, elytra golden castaneous in major parts, somewhat brassy in sutural portions, deep purple in posterolateral portions, basal parts of femora and tibiae dark blue, apical parts of the same dark violet; dorsal surface strongly and metallicly shining, ventral surface rather alutaceous. Ovate; strongly convex above, rather hunchbacked.

Head transversely elliptical, rather closely, finely punctate; clypeus transverse, strongly bent ventrad in middle, fronto-clypeal border nearly straightly impressed; genae obliquely subrhombical, strongly raised laterad, with rounded outer margins; frons steeply inclined apicad, faintly impressed between eyes, diatone about 0.45 times the width of the transverse diameter of an eye. Eyes somewhat comma-shaped, obliquely inlaid into head, convex laterad. Antennae subfiliform, feebly thickened apicad, reaching basal 1/3 of elytra, ratio of the length of each segment from basal to apical: 0.6, 0.2, 1.03, 0.39, 0.72, 0.65, 0.63, 0.44, 0.43, 0.41, 0.66.

Pronotum 1.67 times as wide as long, widest at base, gradually narrowed apicad; apex almost straight in dorsal view, bordered and rimmed; base gently produced, bisinuous on each side, emarginate opposite to scutellum, without margin or impression; sides moderately declined to lateral margins, which are bordered, finely reflexed, and easily visible from above; front angles subrectangular with rounded corners, hind angles subrectangular and rather slightly hooked; disc gently, rather transversely convex, very weakly micro-shagreened, scattered with very small and microscopic punctures in middle, closely and strongly punctate in lateral parts. Scutellum triangular with slightly



Figs. 12-29. Male genitalia. — 12-13, *Plesiophthalmus yukae* sp. nov., dorsal view (12), lateral view (13); 14-15, *P. gaoligongensis* sp. nov., dorsal view (14), lateral view (15); 16-17, *P. kumei* sp. nov., dorsal view (16), lateral view (17); 18-19, *P. caobangensis* sp. nov., dorsal view (18), lateral view (19); 20-21, *P. thaipepulchrus* sp. nov., dorsal view (20), lateral view (21); 22-23, *P. evae* sp. nov., dorsal view (22), lateral view (23); 24-25, *P. tsugeae* sp. nov., dorsal view (24), lateral view (25); 26-27, *P. violaceisimilis* sp. nov., dorsal view (26), lateral view (27). — 28-29, *Euspinamarygmus bremeri* sp. nov., dorsal view (28), lateral view (29).

rounded sides, feebly elevated, very weakly micro-shagreened, sparsely scattered with small punctures.

Elytra 1.3 times as long as wide, 3.6 times the length and 1.4 times the width of pronotum, widest at the middle, gently narrowed basad, roundly so apicad; dorsum strongly convex, highest at basal 1/3; disc weakly micro-shagreened, gently micro-acute, scattered with microscopic punctures, with rows of small punctures, which are sparsely set; sides rather steeply declined to lateral margins, which are boldly bordered and finely expanded laterad, and weakly compressed at basal 1/3; bases finely crenulate; humeri weakly convex; apices feebly produced posteriad.

Male anal sternite emarginate at apex. Profemur spined at apical 2/5 on anterior edge; male protibia rather strongly curved interiad, with interior face noticeably gouged in basal 4/7; male mesotibia curved interiad, with interior face slightly thickened in apical half; ratios of the lengths of pro-, meso- and metatarsomeres: 0.46, 0.28, 0.25, 0.23, 1.2; 0.78, 0.34, 0.31, 0.32, 1.22; 1.6, 0.35, 0.27, 1.29.

Male genitalia short fusiform, 3.8 mm in length, 1.15 mm in width, with basal piece weakly curved in lateral view; fused lateral lobes 1.25 mm in length, with prolonged apices, which are finely serrate in lateral parts.

Body length: 13.5 mm.

Holotype: ♂, Cameron Highlands, Tanah Rata, Pahang, W. Malaysia, IV-1994, FATT leg. (NMNHP).

Notes. This new species is a member of the species-group of *P. tonkinensis*. It can be distinguished from other members by the wider body with less punctate and strongly metallic dorsal surface.

Plesiophthalmus tsugeae sp. nov.

(Figs. 8, 24-25)

Piceous, partly lighter in colour, head, pronotum and scutellum black with brassy reflection, elytra in major parts black with coppery reflection, medial parts of 3rd, 5th, 7th and 9th intervals (odd intervals except for the 1st) and humeral parts of 8th dark greenish or bluish golden; dorsal surface strongly shining, ventral surface rather alutaceous. Oblong-ovate; strongly convex above.

Head elliptical and transverse, frequently scattered with fine punctures; clypeus somewhat transversely hexagonal, transversely impressed in basal 1/3, weakly bent ventrad in apical 1/3, fronto-clypeal border widely U-shaped and finely impressed; genae oblique, moderately raised laterad, with rounded outer margins; frons somewhat bold T-shaped, almost vertical in front, oblique in posterior part, diatone 0.68 times the width of the transverse diameter of an eye. Eyes somewhat comma-shaped, rather broadly, roundly inlaid into head, convex laterad. Antennae subfiliform, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.59, 0.2, 0.8, 0.32, 0.52, 0.48, 0.53, 0.52, 0.47, 0.53, 0.63.

Pronotum 1.56 times as wide as long, widest at base, gradually narrowed apicad;

apex gently emarginate, clearly bordered and rimmed; base produced opposite to scutellum, sinuous and finely margined on each side, sides moderately declined to lateral margins, which are clearly bordered and visible from above; front and hind angles rectangular though the former is slightly acute, the latter slightly obtuse; disc gently convex, sparsely scattered with small punctures and also with microscopic punctures (visible under 30 \times), with vague impressions near base in middle. Scutellum triangular with rounded sides, generally depressed though feebly convex in middle, scattered with microscopic punctures, with vague impressions in posterior area.

Elytra 1.45 times as long as wide, 3.46 times the length and 1.43 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 1/3; disc punctato-striate, the punctures rather closely set in internal and medial parts and sparsely set in lateral parts, 5th and 6th striae deepened close to base, 3rd and 6th, 4th and 5th striae distinctly connected with each other at each apex; intervals feebly convex, very feebly microsculptured (sparsely scattered with very shallow round impressions, which are irregular in size) and sparsely scattered with microscopic punctures (visible under 35 \times), sutural intervals weakly ridged in apical parts; sides rather steeply declined to lateral margins, which are bordered, feebly expanded laterad and compressed at basal 1/3; bases slightly crenulate; humeri gently swollen; apices slightly produced.

Male anal sternite impressed along outer margin, weakly truncate at apex. Profemur spined at apical 1/3 on anterior edge; male protibia gouged in basal 3/5 on interior face; male mesotibia simply curved interiad and slightly thickened apicad; ratios of the lengths of pro-, meso- and metatarsomeres; 0.38, 0.28, 0.25, 0.23, 1.2; 0.7, 0.32, 0.26, 0.28, 1.27; 1.24, 0.5, 0.44, 1.29.

Male genitalia elongated fusiform, 3.27 mm in length, 0.6 mm in width, curved in basal 1/4 in lateral view; fused lateral lobes modified, 0.88 mm in length, with apices elongate, bent ventrad, serrate laterally and spatulate apically.

Body length: 10 mm.

Holotype: ♂, Maxwell Hill, Bukit Larut, Taiping env., Perak, West Malaysia, III~IV-1995, collector unknown (NMNHP).

Notes. This new species might be a member of the species-group of *P. insignis*, because of the stout body, with pronotum rather broad and not strongly convex, and male genitalia elongate. On the other hand, the body is small for a member of this species-group, and the structure of the male genitalia resembles that of *P. miyakei* MASUMOTO, 1991, a member of the species-group of *P. gokani*. Thus, I prefer to suspend the conclusion about affinity of this new species.

***Plesiophthalmus violaceisimilis* sp. nov.**

(Figs. 9, 26-27)

Piceous, posterior part of head with weakly purplish tinge, pronotum, scutellum and elytra deep purple, dorsal surface gently shining, ventral surface weakly, partly

alutaceously shining. Ovate; strongly convex above.

Head rather closely, irregularly punctate; clypeus subrectangular, depressed in basal part, gently bent ventrad in anterior part, reflexed in apical part, fronto-clypeal border transversely impressed in middle; genae obliquely, rather strongly raised in outer parts, with obtusely triangular outer margins; frons rather steeply inclined anteriorly, with posterior part impressed in middle, diameter about 1.5 times the width of the transverse diameter of an eye. Eyes subreniform, noticeably produced laterad, roundly inlaid into head. Antennae subfiliform, though gently thickened apically, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.63, 0.2, 1.24, 0.58, 0.7, 0.62, 0.59, 0.51, 0.52, 0.5, 0.6.

Pronotum 1.7 times as wide as long, widest at base, gradually narrowed apically; apex nearly straight in dorsal view, clearly bordered; base produced, bisinuous on each side, feebly emarginate opposite to scutellum, faintly margined in middle; sides steeply inclined laterad, with lateral margins grooved and finely rimmed, the rims visible from above; front angles rectangular, hind angles obtuse, with slightly acute corners; disc strongly convex, scattered with minute and microscopic punctures, vaguely impressed on each side close to base. Scutellum triangular with rounded sides, slightly convex, sparsely scattered with microscopic punctures.

Elytra 1.36 times as long as wide, 3.2 times the length, 1.47 times the width of pronotum, widest at the middle; dorsum strongly convex, highest at basal 1/3; disc very slightly micro-aciculate, very sparsely scattered with microscopic punctures (visible under 40 \times), with rows of small punctures, which are very shallowly striated, 5th stria noticeably impressed close to base; intervals wide and almost flat; sides rather steeply declined to lateral margins, which are grooved and feebly expanded laterad, and impressed from each side at basal 2/5; bases very slightly crenulate; humeri noticeably swollen; apices feebly roundly produced.

Male anal sternite emarginate at apex. Profemur spined at apical 2/5 on anterior edge; male protibia gouged in basal 3/5 of internal face; male mesotibia weakly gouged in basal 4/7 of internal face; ratios of the lengths of pro-, meso- and metatarsomers: 0.6, 0.25, 0.23, 0.22, 1.2; 0.78, 0.35, 0.28, 0.26, 1.27; 1.3, 0.32, 0.3, 1.28.

Male genitalia nearly fusiform, 4 mm in length, 1.2 mm in width, moderately curved in lateral view; fused lateral lobes 1.2 mm in length, noticeably flattened, triangular with apices prolonged, with the apico-lateral parts finely serrate.

Body length: 11.5 mm.

Holotype: ♂, Pahia, Laos, 22-V-1950, J. ROMIEUX leg. (MHNG)

Notes. Although this new species possesses very characteristic male genitalia, I prefer to include this temporarily into the species-group of *P. excellens*. The nearest species is *P. yucae* sp. nov., but the present species can be distinguished from the latter by the more ovate body with dorsum more convex and more reddish, eyes more convex laterad, pronotum less strongly convex with simply angulate front angle, scutellum almost regularly triangular, and elytra less microsculptured.

II. Genus *Javamarygmus* PIC, 1927*Javamarygmus kumei* sp. nov.

(Fig. 10)

Piceous, partly with dark coppery, sometimes violet tinge, head, seven basal segments of antennae, apico- and baso-lateral portions of pronotum, patches on elytra, and basal parts of femora and tibiae densely clothed with pale golden hairs, four apical segments of antennae, apical parts of femora and tibiae, and tarsi clothed with bluish black hairs; each surface weakly micro-shagreened. Ovate; strongly convex above, somewhat hunchbacked.

Female. Head somewhat transversely elliptical, vertical in repose, rather frequently punctate and haired; clypeus somewhat transversely hexagonal, bent downwards in middle, truncate at apex, fronto-clypeal border indistinct; genae raised in outer parts, with outer margins rounded; frons slightly impressed in middle between eyes, diatone about 3 times the width of the transverse diameter of an eye. Eyes inverted comma-shaped, though the major parts are concealed under the pronotum, roundly convex laterad. Antennae clavate, reaching basal parts of pronotum, ratio of the length of each segment from basal to apical: 0.8, 0.2, 0.82, 0.35, 0.38, 0.43, 0.45, 0.36, 0.31, 0.33, 0.43.

Pronotum trapezoidal, 1.48 times as wide as long, widest at base, nearly straightly narrowed apicad; apex widely though shallowly emarginate, not margined; base widely triangular, not margined, weakly sinuous on each side, with area opposite to scutellum emarginate; sides abruptly declined to lateral margins, which are somewhat triangularly produced laterad and finely rimmed; front angles rather acutely projected, hind angles almost rectangular; disc noticeably convex, strongly and coarsely foveate, clothed with pily hairs, with a medial longitudinal groove, and an oblique impression on each side close to base. Scutellum short sublinguiform, with base produced forwards, weakly micro-shagreened and sparsely scattered with microscopic punctures.

Elytra subovate, 1.43 times as long as wide, 2.68 times the length and 1.3 times the width of pronotum, widest at the middle; dorsum strongly convex, highest at basal 3/7; disc with rows of large foveae, which are irregularly arranged, each bottom with a longitudinal impression; surface micro-shagreened, sparsely punctate and haired, with peculiar hairy patches.

Legs stout; profemur not sharply spined but gently widened in middle; tibiae rather noticeably widened apicad, though the outer corners of apical parts are obliquely truncate; tarsi rather bold, ratios of the lengths of pro-, meso- and metatarsomeres: 0.26, 0.15, 0.16, 0.17, 1.2; 0.34, 0.21, 0.18, 0.18, 1.21; 0.6, 0.23, 0.22, 1.22.

Body length: 10.2 mm.

Holotype: ♀, Kimanis Road, nr. Keningau, Sabah, N. Borneo, East Malaysia, 5-V-1997, K. KUME leg. (NSMT).

Notes. This new species resembles *Javamarygmus tristis* (PIC, 1928), originally described from Java, but can be distinguished from the latter by the smaller and

slightly slenderer body, with pronotum wider (pronotum/elytra: 0.7 in this species, while 0.66 in *J. tristis*), and elytra with hairy patches of obviously different shape.

III. Genus *Euspinamarygmus* MASUMOTO, 1989

Euspinamarygmus bremeri sp. nov.

(Figs. 11, 28–29)

Brownish black, head, elytra, legs, etc., darker, elytra weakly with dark greenish tinge; dorsal surface strongly, somewhat vitreously shining, ventral surface alutaceous. Ovate; strongly convex above.

Head somewhat transversely elliptical, rather frequently, finely punctate; clypeus transversely hexagonal, bent ventrad in apical half, fronto-clypeal border noticeably grooved, the groove widely straight in middle and curved apicad in lateral parts; genae weakly raised laterad, with outer margins feebly produced; frons rather wide, feebly convex in middle, diatone slightly wider than the transverse diameter of an eye. Eyes cardioidly inlaid into head, roundly convex laterad. Antennae subfiliform, ratio of the length of each segment from basal to 8th (the rest lost in the holotype): 0.32, 0.2, 0.38, 0.32, 0.33, 0.3, 0.33, 0.32, —, —, —.

Pronotum 1.82 times as wide as long, widest at basal 1/3, gently, roundly narrowed apicad and basad; apex almost straight in dorsal view, clearly bordered; base gently produced in middle, sinuous on each side, neither margined nor bordered; sides rather steeply declined to lateral margins, which are clearly bordered; front angles subrectangular with slightly hooked corners, hind angles rather obtusely angulate; disc gently, somewhat transversely convex, frequently scattered with small, deep and somewhat longitudinal punctures, which are sparsely intermixed with microscopic punctures, with a vague arcuate impression at basal 1/6 in middle. Scutellum widely subcordate, very slightly convex in middle, sparsely scattered with small punctures, with a transverse impression at apical 1/3.

Elytra 1.32 times as long as wide, 3.21 times the length and 1.3 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 1/3, disc weakly micro-aciculate, scattered with microscopic punctures, with rows of small punctures, which are somewhat ovate or longitudinal, irregularly set and sometimes fused one another; intervals wide and feebly convex; sides steeply declined to lateral margins, which are clearly bordered, finely expanded laterad and visible from above; bases hardly crenulate; humeri indistinctly convex; apices not modified.

Mesosternum deeply, triangularly excavated in middle. Male anal sternite finely impressed along outer margin on each side, with very slightly emarginate apex. Profemur strongly widened in middle, acutely spined at apical 1/3 on anterior edge; male protibia noticeably curved, very weakly twisted apicad, with interior face gouged in middle and feebly thickened in apical 2/5; male mesotibia curved interiad; ratios of the lengths of pro-, meso- and metatarsomeres: 0.3, 0.22, 0.2, 0.23, 1.2; 0.4, 0.33, 0.29,

0.31, 1.24; 1.0, 0.4, 0.4, 1.27.

Male genitalia fusiform, 2 mm in length, 0.5 mm in width, gently curved in lateral view; fused lateral lobes 0.6 mm in length, with spatulate apices.

Body length: 6.6 mm.

Holotype: ♂, Buon Loui, 620–750 m alt., 40 km NW. of An Khe, S. Vietnam, 14.10'N, 108.30'E, 28–III~12–IV–1995, P. PACHOLÁTKO & L. DEMBICKÝ leg. (SZM).

Notes. This new species resembles *Euspinamarygmus komiyai* MASUMOTO, 1989, from North Thailand, but can be distinguished from the latter by the elytra not striate but with the rows of punctures, which are obviously weaker, and the male genitalia wider in middle.

要 約

益本仁雄：キマワリ属 (*Plesiophthalmus*) とその近縁属についての追加研究 (その2)。——東アジア産のキマワリ属 (*Plesiophthalmus*) とその近縁属についての追加研究の第2回として、キマワリ属 (*Plesiophthalmus*) 8種, *Javamarygmus* 1種, *Euspinamarygmus* 1種を新種記載した。すなわち, *Plesiophthalmus yukae* sp. nov., *P. gaoligongensis* sp. nov., *P. kumei* sp. nov., *P. caobangensis* sp. nov., *P. thaipepulchrus* sp. nov., *P. evae* sp. nov., *P. tsugeae* sp. nov., *P. violaceisimilis* sp. nov., *Javamarygmus kumei* sp. nov., *Euspinamarygmus bremeri* sp. nov. である。これらのうち、キマワリ属では、所属する種群をできるだけ明らかにしたが、保留のもの、新しい組み合わせにしたほうがよいと思われるものがある。また、*Plesiophthalmus yukae* sp. nov. では、本属では初めて雌雄によって背面の色彩がまったく異なる性的2型性が確認された。このことは、Picがとくに雌で記載したインドシナ産のキマワリを、将来的には再検討する必要があることを示唆している。雄で記載されたものも、どの雌の相手はその種の雄か外形では今のところ分からない。

References (Additional)

- MASUMOTO, K., 1999. Additions to *Plesiophthalmus* and its allied genera (Coleoptera, Tenebrionidae, Amarygmini) from East Asia, Part 1. *Elytra, Tokyo*, **27**: 353–370.
- PIC, M., 1917. Descriptions abrégées diverses. *Mél. exot.-ent., Moulins*, (23): 1–20.
- 1925. Nouveautés diverses. *Ibid.*, (44): 1–32.
- 1926. Ditto. *Ibid.*, (47): 1–33.
- 1928. Notes et descriptions. *Ibid.*, (51): 1–36.
- 1930. Nouveautés diverses. *Ibid.*, (56): 1–36.