

Five New Species and a New Subspecies of the Genus *Phaedis*
(Coleoptera, Tenebrionidae) from Sulawesi,
with a Key to the Sulawesian Species

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Abstract Five new species and a new subspecies of the genus *Phaedis* are described from Sulawesi. The genus *Microgauromaia* PIC, 1921 is regarded as a junior synonym of the genus *Phaedis*, and *Microgauromaia minuta* PIC, 1921 is transferred to the genus *Phaedis*. Totally seven species and one subspecies of the genus are recorded from Sulawesi, six species and one subspecies of them being brachypterous. A key to the Sulawesian species is given. New taxa described herein are *Phaedis masatakai*, *P. altilis*, *P. ohbayashii*, *P. nemorivagus*, *P. celebensis* spp. nov., and *P. ovalipennis inornatus* subsp. nov.

First of all, I would like to dedicate this short paper to the memory of the excellent coleopterologist, the late Dr. Masataka SATÔ, in recalling a pleasant time spent with him and some other coleopterists in the rain forest of Sulawesi.

The genus *Phaedis* belonging to the tribe Cnodalonini is a conspicuous genus having a well developed frontal half of head, broadened frons and distinctly armed profemora. This genus was erected by PASCOE in 1866 for *Phaedis elysius* from Borneo. Since then, fifty-nine species have been known from a wide range of Southeast Asia. In Sulawesi *Phaedis* was represented by only a single species, *P. ovalipennis* KRAATZ, 1880, which belongs to the brachypterous group of the genus. In the course of revising the genus, five new species and one new subspecies are recognized from this island, four species and a subspecies of them being also brachypterous, and closely related to one another. They must have diverged in the island in rather a late era. On the other hand, my examination of PIC's type of *Microgauromaia minuta* PIC, 1921 from Celebes deposited in the Muséum national d'Histoire naturelle, Paris, proved that the genus *Microgauromaia* was a junior synonym of the genus *Phaedis*. I will describe herein five new species, one new subspecies and one new synonym, with a key to the Sulawesian species of the genus.

The abbreviations and terminology employed herein are as follows: IE – width of dorsal interspace between eyes; TD – transverse diameter of an eye, measured from dorsal aspect; PL – length of pronotum, measured along median line; PW – width at the widest level of pronotum; EL – median length of elytra; EW – greatest width of elytra.

Types and examined species used for the present paper are deposited in the following institutions: CKAO – Collection Kiyoshi ANDO, Osaka; CKMT – Collection

Dr. Kimio MASUMOTO, Tokyo; CRGT – Collection Dr. Roland GRIMM, Tübingen; EUMJ – The Faculty of Agriculture, Ehime University; MNHN – Muséum national d'Histoire naturelle, Paris; SMNS – Staatliches Museum für Naturkunde, Stuttgart; ZSM – Zoologische Staatssammlung München.

Genus *Phaedis* PASCOE, 1866

Phaedis PASCOE, 1866, 474.

Pseudeumolpus KRAATZ, 1880, 111.

Microgauromaia PIC, 1921, 23. *Syn. nov.*

Key to the Sulawesi *Phaedis* Species Based on the Male Characteristics

1. Elytra with metallic coloured fasciae; hind wings sound and elytra with distinct shoulders. Body length: 8.8–9.1 mm. *P. masatakai* sp. nov.
- Elytra devoid of fasciae and humeri; brachypterous species. 2
2. Prosternal process horizontal or weakly sloping posteriad behind coxae, never adunc. 3
- Prosternal process distinctly adunc behind coxae. 6
3. Elytra fused with each other; elytral intervals evenly convex; inner ocular sulci distinct. Body length: 9.5 mm. *P. minutus* (PIC)
- Elytra free; elytral intervals flat or feebly convex in part; inner ocular sulci obscure. 4
4. Pronotum with anterior margin thickly bordered; punctures on head and pronotum very dense and distinct; body more oval; inner margins of meso- and metatibiae strongly curved at base; elytra devoid of stripes. Body length: 7.5–9.5 mm. *P. (P.) altilis* sp. nov.
- Pronotum with anterior margin narrowly and finely bordered; punctures on head and pronotum sparser and finer; body more elongate; inner margins of meso- and metatibiae weakly curved at base; each elytron sometimes with stripe. Length: 8.6–11.0 mm. 5
5. Elytra with stripes, humeral corners not angulate; punctures on pronotum and elytral intervals finer; head longer in frontal half; pronotum with lateral margins distinctly sinuous before base; parameres suddenly narrowed in median third and convergent again in apical fourth. Length: 9.1–11.0 mm. *P. (P.) ovalipennis ovalipennis* (KRAATZ)
- Elytra without stripes, humeral corners obtusely angulate; punctures on pronotum and elytral intervals coarser; head shorter in frontal half; pronotum with lateral margins hardly sinuous before base; parameres gently narrowed from base to apical fourth, then strongly convergent to apex. Length: 8.6–11.0 mm. *P. (P.) ovalipennis inornatus* subsp. nov.
6. Prosternal process flabellate at apex; pronotum with anterior margin straight; inner

- ocular sulci shallow; postgenae convex, with punctures coarse; body small. Length: 7.3–7.5 mm. *P. (P.) ohbayashii* sp. nov.
- Prosternal process gently convergent apicad; pronotum with anterior margin emarginate; inner ocular sulci deep; postgenae normal, with punctures not coarse; body medium to large in size.7
7. Body more oblong; elytra greenish brassy, with strong reddish purple lustre, moderately convex above, gradually convex from base to middle, elytra not fused; hind wings almost as long as elytral length, flightless because wing venation is reductive. Body length: 12.0–12.6 mm.
.....*P. (P.) nemorivagus* sp. nov.
- Body more oval; elytra metallic blue or rarely metallic green, lustrous, entirely fused with each other, extremely convex above, strongly and abruptly convex from base; hind wings vestigial. Length: 6.7–9.0 mm.
.....*P. (P.) celebensis* sp. nov.

Phaedis (Phaedis) masatakai sp. nov.

(Figs. 3, 9, 16, 25, 32 & 43)

Measurements. Body length: 8.8–9.1 mm; width: 3.7–4.1 mm.

Type series. Holotype: ♂, Puncak Palopo, S. Sulawesi, Indonesia, 2-I-2000, K. ANDO leg. (EUMJ). Paratype: 1♀, same data as for the holotype (CKAO).

Oblong, rather weakly convex above, brilliant dorsally. Colour dark reddish brown, anterior half of head metallic blue-green, posterior half of head and pronotum metallic blue (male, holotype) or blue-violet (female, paratype); elytra metallic blue, each elytron with a pair of reddish purple humeral and subapical fasciae which are thickly margined with brassy-yellow; venter with metallic reflection.

Male. Head hexagonal, well produced in front of eyes, distinctly depressed behind fronto-clypeal suture, with punctures minute and dense, sparser on frons and coarser on vertex; clypeus almost flat, very slightly emarginate at the middle of apex; fronto-clypeal suture deep and clear, obscure laterally; genae almost parallel-sided at sides in basal half, postgenae suddenly narrowed posteriad; eyes comparatively large, roundly produced laterad, inner ocular sulci distinct, deeply engraved; frons flat and sloping forwards, IE/TD=2.50 (female: 2.22). Antennae reaching behind middle of pronotum, five distal segments forming a moderate club. Terminal segment of maxillary palpus right-angled triangular. Mentum triangular, raised along middle and deeply excavated at sides.

Pronotum transversely quadrate, evenly bordered except for the middle of anterior margin, widest behind middle and PW/PL=1.50 (female: 1.55); disc convex, sloping posteriad in basal fourth, with punctures dense, irregularly arranged, larger than those on head; anterior margin gently and arcuately emarginate; anterior angles obtuse, weakly produced; lateral margins simply narrowed forwards from the widest portion and weakly sinuous in basal fourth, narrowly bordered; basal margin bisinuous, nar-

rowly bordered.

Elytra oblong, gently convex, moderately rounded at sides, widest behind middle and $EL/EW = 1.53$; humeral calli distinctly tumid; striae moderately impressed, becoming deeper laterad, strial punctures rather minute, space between them about 1.5 to 7 times as wide as a puncture; intervals weakly convex, distinctly so in apico-lateral areas, minutely and moderately punctate; epipleura broadened at humeri, then strongly oblique downwards.

Prosternum rugose, slightly raised along the middle; prosternal process acute cuneiform, pointed at apex. Mesosternum with median ridge U-shaped, weakly raised, but the anterior angles slightly and acutely produced forwards. Metasternum rather short, strongly raised towards middle.

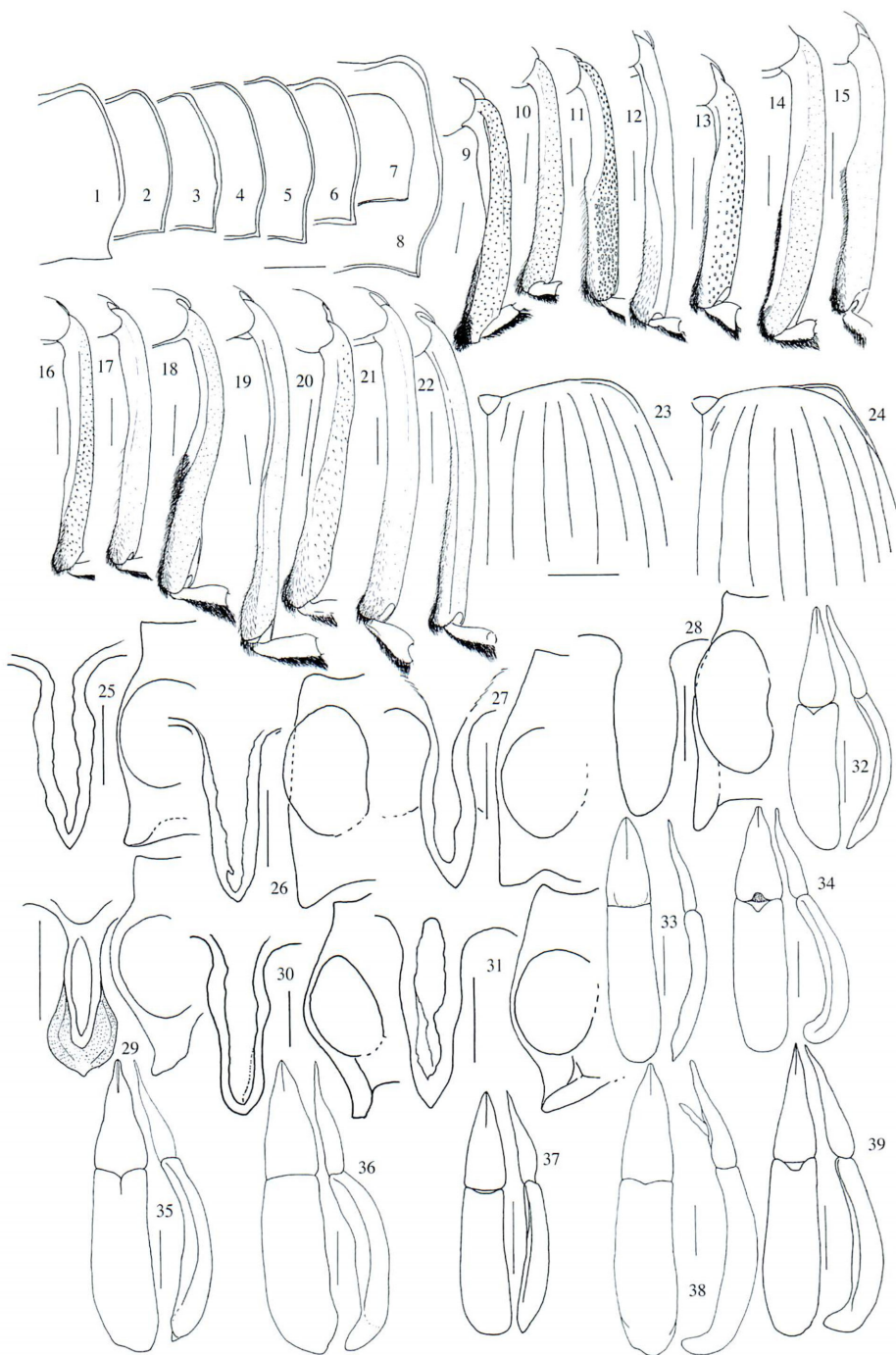
Legs rather slender; profemoral teeth acute, moderate in size, posterior margins of meso- and metafemora distinctly emarginate in each apical third; inner margin of protibia distinctly emarginate at the portion between basal two-sixths and five-sixths, that of mesotibia also distinctly emarginate, with dense setae in apical half, and that of metatibia strongly depressed throughout, the emarginations of pro- and mesotibiae somewhat twisted.

F e m a l e. Emargination of protibia weak and situated between basal two-fifths and four-fifths.

Diagnosis. This new species is closely allied to *P. iridipennis* (GEBIEN) from Mindanao, but is distinguished from the latter by the following features: body rather weakly convex above; elytra not iridiculous; prosternal process horizontal; head and pronotal punctures denser, inner ocular sulci deep and more distinct; pronotum devoid of fasciae, distinctly narrower at base than elytral base, 1.5 times as wide as long instead of almost twice as long in the latter; and elytra devoid of zigzag fasciae.

Etymology. The specific name of this species is dedicated to the late Dr. Masataka SATÔ, one of my best friends, who made a great contribution to the entomology not only in Japan but also in Taiwan.

Figs. 1–39. *Phaedis* spp. — 1–8, Right lateral margins of pronota; 9–15, mesotibiae in male; 16–22, metatibiae in male; 23–24, right humeral corners in dorsal view; 25–31, prosternal processes (right: dorsal view; left: lateral view); 32–39, male genitalia (left: dorsal view; right: lateral view). 1, 12, 19, 23, 28, 35, *P. (P.) ovalipennis ovalipennis* (KRAATZ); 2, 24, 36, *P. (P.) ovalipennis inornatus* subsp. nov.; 3, 9, 16, 25, 32, *P. (P.) masatakai* sp. nov.; 4, 10, 17, 26, 33, *P. (P.) minutus* (PIC); 5, 11, 18, 27, 34, *P. (P.) attilis* sp. nov.; 6, 15, 22, 31, 39, *P. (P.) celebensis* sp. nov.; 7, 13, 20, 29, 37, *P. (P.) ohbayashii* sp. nov.; 8, 14, 21, 30, 38, *P. (P.) nemorivagus* sp. nov. Scales: 0.5 mm for Figs. 9–22, 25–39 and 1.0 mm for Figs. 1–8, 23–24.



Phaedis (Phaedis) minutus (PIC, 1921), comb. nov.

(Figs. 4, 10, 17, 26, 33, 46 & 47)

Microgauromaia minuta PIC, 1921, 23.*Measurements.* Body length: 9.5 mm; width: 4.4 mm.*Type examined.* 1 ex., S. Celebes, Bua-Kraeng, 5000', Febr. 1896, H. FRUHS-TORFER (MNHN).*Specimen examined.* 1♂, Indonesia, Pangia, Sulawesi Selatan, 27-XII-1999, N. OHBAYASHI leg. (CKAO).*Notes.* In the examined type, the profemur is armed with a distinct tooth, and the external generic characters are indicative of the genus *Phaedis*. In this species, the median edge of mesosternum has produced anterior angles; mentum short linguiform, with lateral excavations deep; maxillary palpus right-angled triangular; inner margin of mesotibiae carinate along the middle.*Phaedis (Phaedis) atilis* sp. nov.

(Figs. 5, 11, 18, 27, 34 & 45)

Measurements. Body length: 7.5–9.5 mm; width: 3.8–4.7 mm.*Type series.* Holotype: ♂, Indonesia, Puncak Palopo, Sulawesi Selatan, 2-I-2000, N. OHBAYASHI leg. (EUMJ). Paratypes: 1♂, 1♀, same data as for the holotype (CKAO); 1♂, 1♀, Puncak Palopo, S. Sulawesi, 2-I-2000, K. ANDO leg. (CKAO); 1♀, Polopo, Sulawesi, 7-II-1985, M. TAO leg. (CKMT); 2♀♀, ditto, 5-VI-1982, M. TAO leg. (CKMT); 1♂, ditto, 6-VI-1982, M. TAO leg. (CKMT).

Oval, distinctly calabash bottle-shaped, strongly convex above in hind body, shiny, shoulders effaced. Colour dark reddish brown; head and pronotum metallic green, with violet lustre; elytra dark metallic green or aeneous; six distal segments of antennae dark brown; venter dark reddish brown or dark brown in part.

Male. Head quadrate, distinctly sloping forwards, with punctures dense and minute, rather sparser behind fronto-clypeal suture; clypeus distinctly convex, shallowly emarginate at apex in median half; genae longer than wide, weakly rounded at sides, each with a round depression in front of eye; postgenae gently convergent posteriad; frons raised and almost flat, IE/TD=2.86; eyes small, hardly produced laterad, inner ocular sulci very weak. Antennae reaching middle of pronotum, five distal segments forming a weak club. Terminal segment of maxillary palpus nearly right-angled triangular. Mentum narrow linguiform, deeply excavated at sides, with coarse surface.

Pronotum transversely trapezoidal, widest behind middle, PW/PL=1.49; anterior margin distinctly emarginate, with border thick and almost entire; anterior angles obtusely rounded and a little produced; lateral margins weakly rounded in apical two-thirds, and sinuous in the rest, very narrowly bordered; disc convex forwards, densely punctate, the punctures almost similar in size to or a little larger than those on

frons.

Elytra oval, strongly convex, almost devoid of humeral calli, not fused with each other, widest at middle and $EL/EW=1.43$; striae fine and weakly impressed, stria punctures minute and rather dense, irregularly arranged, slightly larger in 7th and 8th striae, space between them about one to seven times as wide as a puncture; intervals almost flat, densely and minutely punctate; epipleura very broad at humeri, with microscopical rugosities. Hind wings vestigial, about a half length of each elytron.

Prosternum short in front of coxae, prosternal process narrowly cuneate, moderately obliquely sloping posteriad but not adunc, distinctly depressed along middle and acute at apex. Mesosternum with median ridge distinct, acutely produced forwards at the corners. Metasternum very short, nearly as long as a diameter of mesocoxa, coarsely punctate. Anal sternite often slightly emarginate at apex.

Legs robust; profemoral teeth moderately produced laterad, rectangular; inner margins of tibiae distinctly emarginate basally, protibiae emarginate in basal half, mesotibiae emarginate in basal four-ninths, and metatibiae strongly emarginate in basal half, the remaining inner margins of meso- and metatibiae densely pubescent.

F e m a l e. Antennae shorter; legs rather slender, emarginations of tibiae very weak.

Diagnosis. This new species is similar to *P. minutus* (PIC) from Sulawesi, but is easily separated from the latter by having the body more tumid; elytra more dilated, intervals hardly convex, striae more weakly impressed, stria punctures well visible instead of almost invisible in the latter; mentum narrow linguiform; inner ocular sulci feeble; pronotum more densely and distinctly punctate, with anterior margin more thickly bordered; inner margin of mesotibia in male distinctly emarginate basally and devoid of carinae in middle.

Etymology. The specific name is derived from strongly dilated body.

Phaedis (Phaedis) ovalipennis ovalipennis (KRAATZ, 1880)

(Figs. 1, 12, 19, 23, 28, 35, 40 & 41)

Pseudeumolpus ovalipennis KRAATZ, 1880, 113.

Measurements. Body length: 9.1–11.0 mm; width: 4.2–4.7 mm.

Type examined. 1 ex., Menado, (BATES), Haag. (ZSM).

Specimens examined. 1♂, 1♀, Tondano, N. Sulawesi, 10-IV-1989, Y. MIYAKE leg. (CKAO); 1♀, ditto, 9-IV-1989, Y. MIYAKE leg. (CKAO); 1♂, Sulawesi: Temonon, Rurukan, Gn. Mahawu, 30-XI~3-XII-1999, 1,150–1,200 m, leg. A. RIEDEL (SMNS); 1♂, Indonesia, N-Sulawesi, 1 km S Sawangan, Flußstal b. River Park Hotel, 01° 22' 61" N, 124° 56' 56" E, 01~03-II-2004, 250–300 m, leg. A. WEIGEL, UWS/Plant. (CRGT).

Notes. Elytra not fused with each other, hind wings reduced, nearly as long as each elytron, wing venations vestigial.

Phaedis (Phaedis) ovalipennis inornatus subsp. nov.

(Figs. 2, 24, 36 & 42)

Measurements. Body length: 8.6–11.0 mm; width: 4.3–5.0 mm.*Type series.* Holotype: ♂, Sulawesi: Kotamobagu, Modinding, Gn. Ambang, 6–XII–1999, 1,100–1,450 m, leg. A. RIEDEL (SMNS). Paratypes: 1♂, 1♀, same data as for the holotype (SMNS & CKAO); 2♂♂, 1♀, Sulawesi: Temonon, Rurukan, Gn. Mahawu, 30–XI~3–XII–1999, 1,150–1,200 m, leg. A. RIEDEL (SMNS).

This new subspecies is separable from the nominotypical subspecies by the following points: body reddish brown, strongly greenish brassy on dorsum, neither reddish purple lustre nor bluish green sutural intervals; four distal segments of antennae, and femora more or less darkened; head shorter in frontal half; pronotum more coarsely punctate, with lateral margins feebly or scarcely sinuous before base; elytra devoid of stripes, with humeral corners obtusely angulate, intervals more coarsely punctate; parameres in dorsal view not constricted in median third, gently convergent from base to apical third, and strongly so to apices in apical third.

Etymology. The subspecific name refers to the immaculate elytra.*Phaedis (Phaedis) ohbayashii* sp. nov.

(Figs. 7, 13, 20, 29, 37 & 48)

Measurements. Body length: 7.3–7.5 mm; width: 3.3–3.5 mm.*Type series.* Holotype: ♂, Indonesia, Bontongan, Sulawesi Selatan, 29–XII–1999, N. OHBAYASHI leg. (EUMJ). Paratype: 1♀, same data as for the holotype (CKAO).

Oblong-oval, weakly calabash bottle-shaped, moderately shiny. Colour dark reddish brown, dorsal side dark greenish brassy, seven basal segments of antennae reddish brown, elytra with more or less purplish lustre.

Male. Head semicircular, moderately sloping forwards from vertex, minutely and sparsely punctate; clypeus flat, roundly produced forwards; fronto-clypeal suture narrow and obscure, visible in part; genae rounded at sides, but their curvature is not continuous to that of clypeus; eyes small, hardly produced laterad, inner ocular sulci narrow, clearly engraved; frons with a pair of oval depressions in front of suture, with punctures a little larger and sparser than those on clypeus, IE/TD=3.17; postgenae short, roundly tumid laterad. Antennae moderate in length, reaching before middle of pronotum; four distal segments dilated, forming a small club. Maxillary palpus triangular. Mentum linguiform, with a pair of coarse depressions near base.

Figs. 40–49. Habitus of *Phaedis* spp. — 40, *P. (P.) ovalipennis ovalipennis* (KRAATZ), specimen examined; 41, *P. (P.) ovalipennis ovalipennis* (KRAATZ), type; 42, *P. (P.) ovalipennis inornatus* subsp. nov.; 43, *P. (P.) masataikai* sp. nov.; 44, *P. (P.) nemorivagus* sp. nov.; 45, *P. (P.) attilis* sp. nov.; 46, *P. (P.) minutus* (PIC), type; 47, *P. (P.) minutus* (PIC), specimen examined; 48, *P. (P.) ohbayashii* sp. nov.; 49, *P. (P.) celebensis* sp. nov.



40



41



42



43



44



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46



47



48



49

Pronotum transversely quadrate, gently rounded and not sinuous at sides, moderately convex forwards, widest at middle, with border very narrow except for basal one, $PW/PL = 1.48$; disc densely and minutely punctate, the punctures almost similar in size to those on frons; anterior margin nearly straight; anterior angles obtuse, not produced.

Elytra oblong-oval, fused with each other, slightly wider than pronotum at the base, distinctly convex, widest at basal two-fifths, then strongly narrowed towards apices, $EL/EW = 1.43$; shoulders effaced, lateral borders very narrow, invisible from above; striae fine, strial punctures rather large and irregular in density, constantly becoming smaller at least in apical third; intervals feebly convex, densely and minutely punctate; epipleura smooth, broadened at humeral portion. Hind wings vestigial.

Prosternum not raised along the middle; prosternal process narrow between coxae, adunc and divergent posteriad behind them, roundly convergent apicad and obtusely rounded at the apex. Mesosternum with median ridge very weak and declivous forwards. Metasternum short, shorter than the diameter of mesocoxa in the median length.

Legs short; profemora with anterior teeth very weak and obtuse; inner margin of mesotibia distinctly emarginate in basal third and feebly so in the rest, sparsely setous; inner margin of metatibia weakly bisinuous, and hardly pubescent in apical half.

F e m a l e. Inner margins of meso- and metatibiae hardly sinuous.

Diagnosis. This new species somewhat resembles *P. minor* (PIC) from Tonkin, but is readily distinguished from the latter by the more strongly pear-shaped hind body, the elytra not purple but greenish brassy, strial punctures less coarsely arranged, intervals densely punctate, feebly convex instead of distinctly so in the latter; the pronotum nearly straight at apex, with lateral margins not sinuous before base.

Etymology. This new species is cordially dedicated to Dr. Nobuo OHBAYASHI, the collector of the type series.

Phaedis (Phaedis) nemorivagus sp. nov.

(Figs. 8, 14, 21, 30, 38 & 44)

Measurements. Body length: 12.0–12.6 mm; width: 5.3–5.5 mm.

Type series. Holotype: ♂, Puncak Palopo, S. Sulawesi, Indonesia, 2–I–2000, K. ANDO leg. (EUMJ). Paratype: 1♂, Puncak Palopo, Sam Puna alt. 1,050 m, S. Sulawesi, 23–I–2000, G. BECCE leg. (CKAO).

M a l e. Oblong, moderately calabash bottle-shaped, large in size. Colour black, head, pronotum, lateral marginal portion and epipleura of elytra metallic blue; major part of elytra brassy or brassy-green, with strong purplish reflection; venter blackish brown, with violet lustre in part.

Head hexagonal, almost flat, and distinctly sloping forwards, with punctures minute, moderate in density; clypeus shallowly emarginate at apex in median three-fifths; fronto-clypeal suture distinct, longer in lateral parts than in median; genae subparallel-sided in basal two-thirds; postgenae simply narrowed posteriad; eyes rather

small, inner ocular sulci shallow and obscure, $IE/TD = 2.63$. Antennae short, reaching before middle of pronotum; five distal segments forming a robust club. Maxillary palpus widely triangular. Mentum triangular, broadly raised along middle and excavated at sides, with a pair of long setae behind apex.

Pronotum quadrate, weakly convex, rather narrowly bordered, widest at basal five-sevenths, $PW/PL = 1.21$; disc finely and rather densely punctate; anterior margin gently and arcuately emarginate; anterior angles obtusely rounded, not produced; lateral margins convergent almost straight from the widest point to anterior corners, and distinctly sinuous before base in about basal two-sevenths.

Elytra oblong, distinctly convex, gently divergent posteriorly, widest at apical four-ninths, $EL/EW = 1.43$, shoulders effaced, humeral calli vestigial; lateral borders at basal corners thickened and a little reflexed; striae moderately and not sharply impressed, striae punctures minute and sparse, but large and distinct in 8th striae, space between the punctures about two to seven times as wide as a puncture; intervals hardly convex, sparsely and microscopically punctate; epipleura rather narrow and obliquely sloping downwards. Hind wings almost as long as each elytron, with venation reduced.

Prosternum depressed before coxae; prosternal process cuneate, almost parallel-sided, depressed along middle, adunc inwards behind at coxae, and recurved downwards at apex. Mesosternum with median ridge short, seemingly broad V-shaped, pointed at each anterior corner. Metasternum very short, roundly depressed at middle.

Legs robust; profemoral teeth moderate-sized and sharp, slightly directed outwards; inner margins of protibiae shallowly emarginate nearly in basal half, those of mesotibiae strongly depressed in basal half, and of metatibiae distinctly depressed in basal three-fifths.

F e m a l e. Unknown.

Diagnosis. This new species resembles *P. philippinensis* (GEBIEN) from Mindanao, but the following characteristics of the new species are unique: the head and pronotum not mat, inner ocular sulci obscure, not sharp; the pronotum densely punctate, 1.21 times as wide as long instead of 1.66 times in the latter, pigmented by single colour instead of three or four colours in the latter, with lateral margins distinctly sinuous before base; the elytra devoid of green longitudinal stripes; the prosternal process adunc behind coxae.

Etymology. The name of this species is a compound Latin word *nemorivagus* (forest + wandering), derived from the habitat of the forest animal.

Phaedis (Phaedis) celebensis sp. nov.

(Figs. 6, 15, 22, 31, 39 & 49)

Measurements. Body length: 6.7–9.0 mm; width: 3.2–4.4 mm.

Type series. Holotype: ♂, Indonesia, Puncak Palopo, Sulawesi Selatan, 2–I–2000, N. OHBAYASHI leg. (EUMJ). Paratypes: 1♂, 2♀♀, same data as for the holotype (CKAO); 2♂♂, ditto, 30–31–XII–1999, N. OHBAYASHI leg. (CKAO); 2♂♂, 1♀,

Puncak Palopo, S. Sulawesi, 2-I-2000, K. ANDO leg. (CKAO); 1♀, Puncak Palopo, S. Sulawesi, 1-I-2000, M. ANDO leg. (CKAO); 1♀, Puncak Palopo, S. Sulawesi, 2-I-2000, M. ANDO leg. (CKAO); 2♂♂, Polopo, Sulawesi, 7-II-1985, M. TAO leg. (CKMT); 1♀, Puncak Palopo, Luwu, Palopo, KM27, C. of S. Sulawesi, 20-I-2000, G. BECCE leg. (CKAO); 1♀, Puncak Palopo, Luwu, Palopo, To'Rea, C. of S. Sulawesi, 18-I-2000, G. BECCE leg. (CKAO); 1♂, Puncak Palopo, Sam Puna, alt. 1,050 m, S. Sulawesi, 23-I-2000, G. BECCE leg. (CKAO).

Body entirely calabash bottle-shaped, strongly convex above, shiny. Colour blackish brown; head dark metallic green or violet; pronotum dark violet or dark metallic green; elytra metallic blue or metallic green, but purple-brassy in a paratype; legs, mouthparts, coxae and two basal segments of antennae dark reddish brown.

Male. Head hexagonal, weakly convex, sloping forwards from vertex, somewhat obtriangularly depressed in middle, moderately and minutely punctate, the punctures sparser and larger in frons and vertex; clypeus weakly convex, almost straight or slightly emarginate at apex; genae nearly as long as wide, moderately rounded basad and abruptly convergent forwards; postgenae subparallel-sided; frons moderately convex, IE/TD=2.50; eyes small and transverse, hardly produced laterad, inner ocular sulci distinctly engraved. Antennae reaching beyond middle of pronotum; five distal segments dilated, forming a moderate club. Terminal segment of maxillary palpus fairly securiform. Mentum comparatively small, narrow linguiform, carinate along middle and coarsely depressed at sides, rounded at apex.

Pronotum transversely quadrate, strongly convex, widest at middle, PW/PL=1.56; disc somewhat depressed before base, with punctures sparse and microscopical, finer than those on head; anterior margin broadly emarginate, narrowly bordered except for the median third; anterior angles obtuse, slightly produced; lateral margins narrowly bordered, rounded in apical two-thirds, and distinctly sinuous in basal third. Scutellum very small.

Elytra oval, strongly and suddenly convex from base, rather acutely prolonged at apices, entirely fused with each other and devoid of humeral calli, widest at middle, EL/EW=1.50, with narrow lateral margins entirely invisible in dorsal view; striae narrow and very clearly impressed, striae punctures oblong or elongate, very sparse and minute, space between them about two to eight times as wide as a puncture; intervals weakly convex, distinctly so in latero-posterior portion, microscopically and moderately punctate; epipleura microscopically reticulate. Hind wings almost atrophied.

Prosternum with prosternal process cuneate, depressed in middle, adunc inwards behind at coxae and curved outwards again at the apex. Mesosternum with median ridge short, gently sloping anteriorly. Metasternum very short, almost as long as a diameter of mesocoxa, strongly depressed in middle, sparsely punctate.

Legs slender; profemoral teeth rather short, acutely protuberant forwards; inner margins of protibiae weakly emarginate in about basal half, and those of mesotibiae weakly so in basal two-fifths, thence weakly depressed and densely pubescent to apex, inner margins of metatibiae evenly depressed.

Female. Antennae shorter, not reaching middle of pronotum; punctures on pronotum larger; inner margins of pro- and mesotibiae not emarginate.

Diagnosis. The overall appearance of this species suggests a close affinity to *P. minutus* (PIC) originally from Celebes, but the present new species is readily distinguished from the latter by the prosternal process adunc; elytra shortened, suddenly raised just behind base, and sharper at apices, elytral convexity highest behind base instead of middle in the latter, striae punctures sparse but visible, intervals less convex; pronotum more obscurely punctate; mesosternal median ridge short and weak, sloping anteriorly and devoid of anterior angles; terminal segment of maxillary palpus securiform; and inner margins of mesotibiae weakly emarginate basally.

Etymology. The name of this species is derived from the old name of the type area, Sulawesi.

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要 約

安藤清志：スラウェシ産カタビロキマワリモドキ属 (*Phaedis* 属) の 5 新種および 1 新亜種。——スラウェシ島ではこれまでカタビロキマワリモドキ属の種は *P. ovalipennis* (KRAATZ, 1880) の 1 種のみが知られていた。今回新たに 5 種、1 亜種をそれぞれ未知のものと認めて記載した。また、当地にて 1921 年 PIC により記載された新属 *Microgauromaia* のタイプ種を精査した結果、カタビロキマワリモドキ属 (*Phaedis* 属) の下位同物異名と結論づけて、変更の処理を行った。これにより本島からは 7 種 1 亜種が知られることとなったので、全種の検索表を付帯し、詳細な部分図と既知種のタイプを含めた全体図を添付した。また、これらの種のうち 1 種を除いてはいちじるしく後翅が退化しており、体形的にも一見して明らかな瓢型である。これら種の特化傾向は、本島におけるカタビロキマワリモドキ属 (*Phaedis* 属) の進化の方向性を示唆しているようだ。記載された種の新名は次のとおりである：*Phaedis masatakai*, *P. altilis*, *P. ohbayashii*, *P. nemorivagus*, *P. celebensis*, *P. ovalipennis inornatus*。

今回記載された新種のうちで、*Phaedis masatakai* は昨年逝去された故佐藤正孝博士に献命されたものである。永きにわたる博士のご厚誼を思い、ともに調査を行ったスラウェシ島での研究結果を献じて、心よりご冥福を祈る。

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