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## First record of *Cephenomicrus* REITTER in Papua New Guinea (Coleoptera: Staphylinidae: Scydmaeninae)

PAWEŁ JAŁOSZYŃSKI

Os. Wichrowe Wzgórze 22/13, 61-678 Poznań, Poland, email: scydmaenus@yahoo.com

ABSTRACT. *Cephenomicrus gunnos* n. sp. (Scydmaeninae, Cephenniini) from Papua New Guinea is described, and its diagnostic characters, including aedeagus, are discussed and illustrated. The new species is the first representative of *Cephenomicrus* REITTER and second cepheniine ant-like stone beetle known to occur in New Guinea.

Key words: entomology, taxonomy, new species, Staphylinidae, Scydmaeninae, Cephenniini, *Cephenomicrus*, Australo-Oriental, Papua New Guinea.

### INTRODUCTION

The Scydmaeninae of New Guinea are exceptionally poorly studied, and the first representative of the Cephenniini occurring on this large island has been described only very recently (JAŁOSZYŃSKI 2008a). *Cephenodes papuanus* JAŁOSZYŃSKI has been the only member of this large tribe known from Papua New Guinea. In the present paper an occurrence of another cepheniine genus, *Cephenomicrus* REITTER, 1907, is reported, and a new species is described from the northern coast of mainland Papua New Guinea.

Since the publication of the world checklist of *Cephenomicrus* (JAŁOSZYŃSKI 2008b), fifteen new species of this genus have been discovered and described from the Philippines (JAŁOSZYŃSKI 2009a; 2010), Sri Lanka (JAŁOSZYŃSKI 2009b), Thailand (JAŁOSZYŃSKI & NOMURA 2008a), West Malaysia (JAŁOSZYŃSKI & NOMURA 2008b), Taiwan (JAŁOSZYŃSKI 2009c) and Japan (JAŁOSZYŃSKI 2009c). The new data, including the current report, suggest that this genus is broadly distributed in the moist forests of SE Asia and the transition zone between the Oriental and Palearctic regions (e.g., the Japanese islands of Ryukyus), but rarely collected due to very small bodies of most of

its species (often below 1 mm). The finding of *Cephennomicrus* in Papua New Guinea fills the gap between islands of SE Asia and eastern part of Australia, where this genus was known to occur (KING 1864; FRANZ 1975; JAŁOSZYŃSKI 2008a).

The nomenclature and methods of measurements used in the description follow those of JAŁOSZYŃSKI (2009c); the type material is deposited in the University of Kansas, Natural History Museum and Biodiversity Research Center (Snow Entomological Collections; KSEM).

***Cephennomicrus gumnos* n. sp.**

(Figs. 1-4)

NAME DERIVATION

The Greek adjective γυμνός (*gumnos*), meaning “naked”, refers to the nearly glabrous body of this species.

DIAGNOSIS

Remarkable, large species (body length nearly 1.2 mm), very stout, with particularly broad pronotum (1.5x as broad as long), shiny and glabrous apart from several

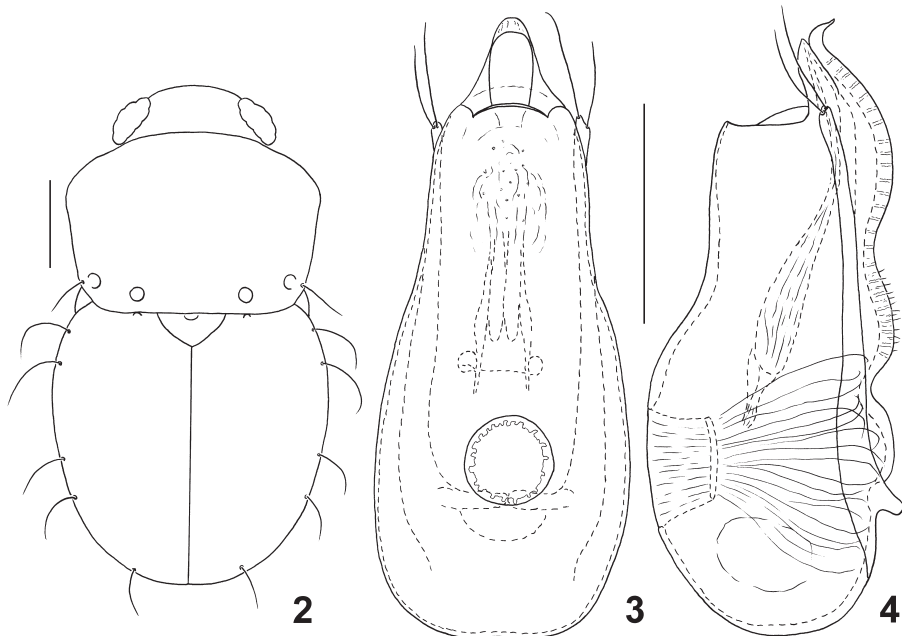


1. *Cephennomicrus gumnos* sp. n.: dorsal habitus of holotype male (scale bar: 0.2 mm)

long upright setae; punctures on pronotum very distinct and dense in anterior third of disc, gradually becoming smaller, shallower and sparser posteriorly, so that posterior third of pronotum appears impunctate; aedeagus in lateral view with abruptly separated apical part and strongly recurved dorsal wall bearing short setae.

#### DESCRIPTION

*Male.* Body (Figs. 1, 2) very stout and strongly convex, distinctly constricted between pronotum and elytra, length 1.18-1.19 mm, pigmentation reddish-brown, dorsum very glossy; setae slightly lighter than cuticle. Head widest at very large and convex, coarsely faceted eyes, each eye with short and narrow postero-median emargination; length of head 0.18-0.20 mm, width 0.35-0.36 mm; tempora not visible; vertex and frons moderately convex; frontal glands indiscernible (see remarks); supraantennal tubercles small and weakly raised; clypeus distinctly deflexed. Punctuation on frons and vertex very distinct, punctures small and shallow but dense and well marked, unevenly distributed, separated by spaces 0.5-1.5 as long as puncture diameters; setae noticeable only on clypeus under magnification  $>80\times$ , sparse and short. Antennae 0.50 mm long, with slender but compact proximal flagellomeres covered with very sparse short setae and large, sharply delimited 3-segmented club as long as antennomeres II-VIII together and covered densely with very long, curved setae; antennomere I about 1.6x as long as broad; II distinctly narrower than I but equal in length, nearly twice as long as broad; III much narrower and shorter than II, subquadrate; IV-VI subequal in length and width,



2-4. *Cephennomicrus gumnos* n. sp. 2 – simplified body outline and distribution of macrosetae; 3, 4 – aedeagus in ventral (3), and lateral (4) views (scale bar: 2 – 0.2 mm, 3, 4 – 0.1 mm)

each as broad as III and slightly longer, about 1.1x as long as broad; VII slightly larger than VI, 1.1x as long as broad; VIII barely noticeably larger than VII, 1.1x as long as broad; IX much longer and broader than VIII, twice as long as broad; X much broader and longer than IX, twice as long as broad; XI slightly longer but narrower than X, with subcylindrical basal part and abruptly delimited subconical apical part.

Pronotum broadest near anterior third, length 0.35-0.38 mm, maximum width 0.53-0.55 mm; anterior margin broadly rounded; lateral margins smooth (e.g., not microserrate), strongly rounded in anterior third, nearly straight from broadest place up to shortly before base, strongly convergent toward obtuse and blunt hind angles; posterior margin arcuate; base of pronotum with two small and shallow but well defined lateral pairs of foveae. Disc in anterior third with large, deep and sharply marked punctures separated by spaces comparable to puncture diameters, punctures becoming gradually smaller, shallower and sparser posteriorly so that posterior third of pronotum is impunctate; basic vestiture indiscernible under magnification 100x, macrosetae distributed as in Fig. 2.

Elytra oval, very stout, broadest near anterior third, length 0.63-0.64 mm, width 0.60 mm, elytral index (length/width) 1.04-1.06. Humeral calli small but recognizable, each accompanied at internal side by indistinct basal impression; basal elytral fovea barely discernible, very small and shallow; apices of elytra separately rounded. Surface of elytra very glossy, punctures can be seen at magnifications >40x and are very small, shallow and sparse; basic vestiture indiscernible under magnification 100x, macrosetae distributed as in Fig. 2. Hind wings not studied.

Legs slender, moderately long; protibiae straight, meso- and metatibiae slightly recurved.

Metaventricle very finely punctate, glossy, with very small median tubercle located slightly anterior to middle.

Aedeagus (Figs. 3, 4) length 0.28 mm, in ventral view pear-shaped, with circular membranous area on ventral wall, in lateral view apical part abruptly separated and apex strongly curved dorsally, dorsal wall recurved and bearing short setae; parameres slender, not reaching apex of median lobe, each with two long apical setae.

*Female.* Unknown.

#### TYPE MATERIAL

Holotype (male): "PAPUA NEW GUINEA: Madang \ Baitabag, 8 km NW Madang 100m \ 30.I.2000 5°09'19"S 145°46'34"E \ R.S.Anderson, rainforest litter \ RSA2000-027, PNG1A00-027" [white, printed], "*CEPHENOMICRUS* \ *gumnos* m. \ HOLOTYPUS \ det. P. JAŁOSZYŃSKI '10" [red, printed] (KSEM, No. SM0674959). Paratype: 1 male, "PAPUA NEW GUINEA: Madang \ Uho Village, 20 km SW Madang \ 250m, 29.I.2000 5°14'07"S \ 145°40'54"E R.S.Anderson \ rainforest litter RSA2000-026 \ PNG1A00-026" [white, printed], "*CEPHENOMICRUS* \ *gumnos* m. \ PARATYPUS \ det. P. JAŁOSZYŃSKI '10" [yellow, printed] (KSEM, No. SM0676228).

#### DISTRIBUTION.

Papua New Guinea: Madang Province.

## REMARKS

*Cephenomicrus gumnos* is remarkable and can be easily distinguished from all Australo-Oriental congeners on the basis of its very stout and shiny body covered only with several sparse macrosetae, and apparently devoid of basic vestiture (at least examined under magnifications up to 100x). A very short basic setation and a various number of long, erect and usually curved macrosetae distributed on the pronotum and elytra is typical for many species of *Cephenomicrus*, but usually both types of setae are visible under magnifications 40-80x. The only exceptions are *C. gumnos* and very similar *C. leyteanus*, recently described from the Philippines (JALOSZYŃSKI 2009a). The latter species, however, clearly differs in the punctuation of the pronotum, which is uniform on the entire disc and hardly noticeable under magnification 80x, while the pronotum in *C. gumnos* in its anterior third is covered with dense and distinct punctures well visible under magnification 40x. The shape and internal structures of the aedeagus are also clearly different in these two species.

Although the frontal glands, known in many other species of *Cephenomicrus*, were not found in *C. gumnos*, it is possible that the dense punctures covering the frons and vertex obscure these small structures and examination under light microscope was not sufficient to detect them.

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## REFERENCES

- FRANZ, H., 1975. Revision der Scydmaeniden von Australien, Neuseeland und den benachbarten Inseln. Denkschr. Österreich. Akad. Wissensch., Math.-Naturwissensch. Klasse, **118**: 1-312.
- JALOSZYŃSKI, P., 2008a. First record of Eutheini and Cephenniini in New Guinea, with descriptions of new species of *Paraneseuthia* FRANZ and *Cephenmodes* REITTER (Coleoptera, Scydmaenidae). Genus, Wrocław, **19**(1): 37-44.
- , 2008b. Taxonomic notes on the Cephenniini (Coleoptera, Scydmaenidae): Status of *Coatesia* LEA, *Neseuthia* SCOTT and *Cephenomicrus* REITTER. Zootaxa, **1696**: 25-36.
- , 2009a. Cephenniini of the Philippines. Part 1. A new species of *Cephenomicrus* REITTER from Leyte (Coleoptera, Scydmaenidae). Genus, Wrocław, **20**(2): 99-202.
- , 2009b. Revision of *Cephenomicrus* REITTER of Sri Lanka. Genus, Wrocław, **20**(2): 189-197.
- , 2009c. *Cephenomicrus* REITTER (Coleoptera, Staphylinidae, Scydmaeninae) of Japan and Taiwan: taxonomic notes, ten new species and comparative morphology of *nomurai* and *taiwanensis* species groups. Zootaxa, **2145**: 1-35.
- , 2010. Cephenniini of the Philippines. Part 3. New species of *Cephenomicrus* REITTER and *Hlavaciellus* JALOSZYŃSKI from Palawan (Coleoptera, Staphylinidae, Scydmaeninae). Genus, Wrocław, **21**: 13-20.
- JALOSZYŃSKI, P., NOMURA, S., 2008a. Cephenniini (Coleoptera, Scydmaenidae) of Doi Inthanon and Khao Yai National Parks, Thailand. Ent. Rev. Japan., **63**(2): 71-88.
- , 2008b. A new *Cephenomicrus* (Coleoptera, Scydmaenidae) from the Malay Peninsula. Elytra, **36**(1): 153-157.
- KING, R.L., 1864. On the Scydmaenidae of New South Wales. Trans. Entom. Soc. New South Wales, **1**: 91-99.
- REITTER, E., 1907. Verzeichnis der von Dr. F. EICHELBAUM im Jahre 1903 in Deutsch-Ostafrika gesammelten Scydmaeniden (Col.). Wiener Entom. Zeit., **26**: 297-305.