

A New *Cephennomicrus* REITTER (Coleoptera,
Scydmaenidae) from the Malay Peninsula

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Abstract *Cephennomicrus simplex* sp. nov. from the Malay Peninsula is described. The type material has been collected on Fraser's Hill, Pahang, Malaysia. This is the first species of the genus reported from the Malay Peninsula. The habitus and aedeagus of the holotype are illustrated.

Key words: Coleoptera, Scydmaenidae, *Cephennomicrus* REITTER, new species, W Malaysia, taxonomy.

Introduction

Most species of Oriental *Cephennomicrus* REITTER have been described in *Ne-seuthia* SCOTT; only recently the latter name has been found to be a junior synonym of the former (JAŁOSZYŃSKI, 2008). This distinct genus includes the smallest Scydmaenidae, with the body length usually below 1 mm, and in some cases as small as nearly 0.6 mm. The most remarkable diagnostic character of *Cephennomicrus* is the pronotum bearing more than two ante-basal pits; typically there are four small pits forming two lateral pairs, in some cases the internal pair is connected by a transverse groove. Infrequently an additional median pit is present, or some pits are indistinct. The genus in its present shape may be heterogeneous, with several possible lineages sharing some unique characters, which in future may be defined as subgenera or even separate genera. Most species are known from the holotypes only, and the extremely small body size of these externally relatively uniform beetles makes detailed examination of important details (as mandibles) difficult. The Oriental members of the genus are sparse, and *Cephennomicrus* is rather infrequently collected. The Cephenniini of the hyperbiodiverse

Malay Peninsula and the Sunda Islands are very poorly studied and the only species of *Cephennomicrus* known from this region are *Cephennomicrus raffrayi* (SCHAUFUSS) from Singapore, and *C. sumatranus* (FRANZ) from Sumatra (a world checklist of species was provided by JALOSZYŃSKI, 2008). They both are extremely small and at least *C. sumatranus* shows a set of unique characters that may justify establishing a separate genus for this species (JALOSZYŃSKI, in preparation).

In this paper we describe the first species of *Cephennomicrus* from the Malay Peninsula. The type material (a single holotype male) has been collected on Fraser's Hill, Pahang, and is deposited in the National Museum of Nature and Science, Tokyo, Japan (NSMT). The measurements are as follows: length of head is from a hypothetical line connecting posterior margins of eyes to anterior margin of the frontoclypeal region; width of head is maximum including eyes; length of pronotum is along midline; width of pronotum is maximum; length of elytra is measured along suture from a hypothetical line connecting humeri to apex; width of elytra is maximum, combined; elytral index (EI) is length of elytra divided by width; body length is a sum of lengths of head, pronotum and elytra. The "tubercles" present near antero-interior margins of eyes were recognized as probably representing glands (JALOSZYŃSKI, in preparation), and therefore the name "frontal glands" is here adopted to describe these structures, to avoid confusion with minute and indistinct pair of tubercles visible in some species in the middle of vertex, suggested to be ocelli by LESCHEN & BEUTEL (2004).

Taxonomy

Cephennomicrus simplex sp. nov.

(Figs. 1–4)

Diagnosis. Body small (below 0.9 mm); head non-modified, with frontal glands; antennomere VIII distinctly broader than VII; antennal club distinctly 3-segmented; pronotum with two pairs of basal pits, without grooves; vestiture of dorsum extremely short and sparse, barely noticeable; lateral margin of each elytron bears two very long erect setae; aedeagus very broad and stout, with rapidly narrowed apex and symmetrical internal armature.

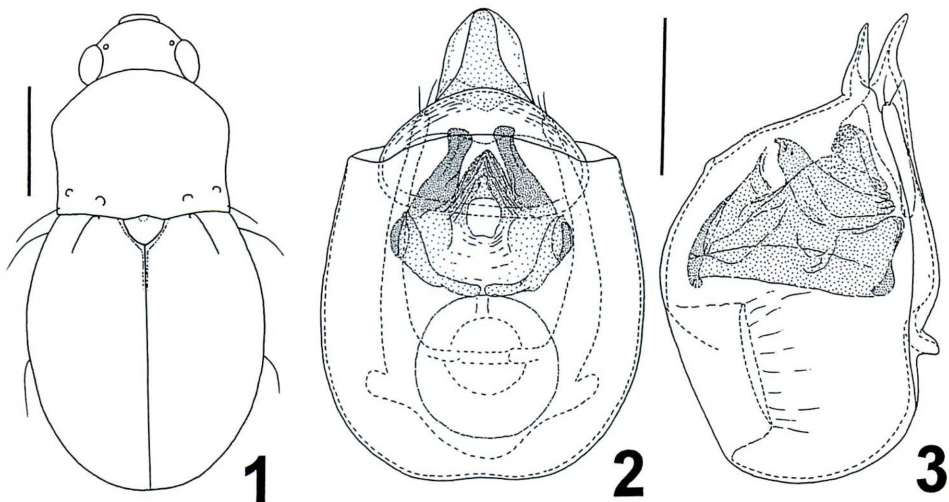
Description. Body moderately stout, with shallow but distinct constriction between pronotum and elytra, strongly convex, reddish-brown, covered with light brown vestiture.

Male (Figs. 1, 4). Body length 0.88 mm. Head large, length 0.12 mm, width 0.22 mm; vertex and frons regularly convex; ocelli well visible; frontal glands distinct, each located near antero-interior margin of eye and about as small as single ommatidium; supraantennal tubercles weakly marked; eyes very large, coarsely faceted, strongly convex. Punctures on vertex and frons extremely fine, barely noticeable under magnification 80×; setae extremely short and sparse. Antennae moderately long, with

slender flagellum and large, distinctly 3-segmented club, length 0.40 mm; antennomere I only $1.2\times$ as long as broad; II slightly narrower and minimally longer than I, $1.4\times$ as long as broad; III much narrower than II and about as long as broad; IV–V subequal in length and width, each minimally broader and longer than III, $1.1\times$ as long as broad; VI as narrow as V but slightly longer, $1.2\times$ as long as broad; VII distinctly broader than VI but slightly shorter, as long as broad; VIII slightly broader than VII but similar in length, minimally broader than long; IX as long as VIII but much broader, distinctly broader than long; X much broader and distinctly longer than IX, much broader than long; XI slightly narrower and longer than X, minimally longer than broad.

Pronotum subquadrate in shape, broadest near anterior third, length 0.25 mm, width 0.30 mm; anterior margin broadly rounded; sides strongly rounded in anterior third, near middle weakly but distinctly constricted, from middle up to nearly straight hind angles lateral margins are nearly straight, not microserrate; posterior margin with two very broad but very shallow lateral emarginations and short but deep median emargination; base of pronotum bears four small but deep pits forming two lateral pairs. Punctuation extremely fine, barely noticeable under magnification $80\times$; setation slightly more distinct than that on head, composed of very short, sparse and recumbent setae; additionally each hind angle bears very long and strongly erect seta.

Elytra oval, broadest slightly anterior to middle, length 0.51 mm, width 0.40 mm, EI 1.27. Basal pit on each elytron small but distinct, connected with narrow but shallow impression running posteriorly and toward lateral margin that separates distinct humeral callus; apices of elytra separately rounded. Punctuation as fine as that on pronotum; setation less distinct than that on pronotum, discernible under magnifications $>100\times$, composed of extremely short, sparse and feebly suberect setae; additionally each elytron



Figs. 1–3. *Cephenomicrus simplex* sp. nov., holotype male; simplified body outline in dorsal view (1); aedeagus in dorsal (2) and lateral (3) views. Scale bars: 1: 0.2 mm, 2, 3: 0.05 mm.

bears two very long and strongly erect lateral setae, inserted near humerus and posterior to middle. Hind wings well developed.

Legs relatively long and slender; pro- and metatibiae straight, mesotibiae slightly recurved.

Metaventricle with very small but distinct median tubercle.

Aedeagus (Figs. 2, 3) 0.15 mm in length, very stout, in dorsal view with rapidly narrowing apical part, apex of dorsal wall much narrower than apex of ventral wall; internal armature symmetrical, composed of darkly sclerotized central complex; parameres short, slender, each bearing two apical setae.

F e m a l e. Unknown.



Figs. 4. *Cephennomicrus simplex* sp. nov., holotype male (0.88 mm).

Distribution. W Malaysia, Pahang: Fraser's Hill.

Holotype male, white printed label "FIT (M): Pinetree Trail, (Trail 8); Fraser's Hill, 〈Pahang, MALAYSIA〉, 26–29. vii. 2004, S. Nomura" (NSMT).

Etymology. The name refers to a simplified morphology of this species.

Remarks. This species is the first *Cephennomicrus* reported to occur in the Malay Peninsula. Since all species in this genus are relatively similar to one another, especially those with pits on the pronotum not connected by a groove, non-modified heads and a very short vestiture, the primary diagnostic characters are those associated with unique male copulatory organs. However, the combination of extremely short vestiture, two very long lateral setae on each elytron, concave sides of pronotum and the antennomere IX much broader than VIII is not known in any other Asiatic species of *Cephennomicrus*.

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要 約

Paweł JALOSZYŃSKI・野村周平: マレー半島産 *Cephennomicrus* 属 (コウチュウ目コケムシ科) の 1 新種。—— マレー半島からコケムシ科の 1 新種, *Cephennomicrus simplex* を記載した。タイプ標本はパハン州フレーザーズ・ヒルから得られたものであり, 本属の種としてはマレー半島から初めての記録となる。全形およびホロタイプの雄交尾器を図示した。

References

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