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First record of *Cephennodes* REITTER from Hong Kong, with description of a new species (Coleoptera: Scydmaenidae)

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ABSTRACT. *Cephennodes* (s. str.) *hongkongensis* n. sp., the first species of the Cephenniini known to occur in Hong Kong, is described. Important diagnostic characters, including the aedeagus, are discussed and illustrated.

Key words: entomology, taxonomy, new species, Scydmaenidae, Cephenniini, *Cephennodes*, Oriental, Hong Kong.

INTRODUCTION

The majority of known species of *Cephennodes* REITTER inhabit China (JAŁOSZYŃSKI 2007a, 2007b), but specimens representing undescribed members of this genus can be commonly found among materials collected in virtually all Oriental jungles and temperate climate zone of the eastern part of the Palearctic Region (JAŁOSZYŃSKI, unpublished observations). *Cephennodes* seems to be the most species-rich and abundant member of the Cephenniini in that area; all other genera of the tribe are very rare or even represented by single species only. The Oriental cephenniines have not attracted much attention in the entire history of the research on the Scydmaenidae. This resulted in a very poor understanding of the distribution of this possibly very large lineage of ant-like stone beetles, leaving most parts of subtropical Asia and even the hyperdiverse Sunda Islands with only few species recorded and described, which amounts for a microscopic part of the suspected biodiversity of the Cephenniini. Recent descriptions of relatively common and highly sophisticated male sexual dimorphic characters in Chinese *Cephennodes* (JAŁOSZYŃSKI 2007a, 2007b) provided a preliminary record of previously neglected morphological features, potentially important for reconstructing

phylogeny of this group. On the other hand, the small number of taxa described by older authors facilitates study on this group. In the Cyrtoscydmini or Scydmaenini a large number of inaccurate diagnoses or taxa established on the basis of females only resulted in an enormous accumulation of ill-defined genera, subgenera and especially hundreds of species that are extremely difficult or even impossible to identify. Such a situation makes any study on these tribes very difficult, and a substantial work must be done simply to redescribe and redefine many taxa. The Cephenniini avoided this fate, and only a relatively small number of taxonomic problems related to some unclear diagnoses needs to be solved.

Examination of specimens accumulated in the Bishop Museum, Honolulu (USA), kindly sent to me by Dr. Shepherd MYERS, revealed two male specimens of *Cephennodes* collected in the island of Hong Kong. These are the first cepheniines known to me found in this small, but interesting area, and as they represent a new species, the description below fills one more gap in the distribution of this tribe. The only other scydmaenid beetle reported so far to occur in Hong Kong was *Scydmaenus tropicus* BLATTNY (= *S. carinatosternalis* LHOSTE), but this species may need a reevaluation in order to verify whether specimens known from Sumatra, Vietnam, Bali and Hong Kong are indeed conspecific (FRANZ 1984).

Measurements and nomenclature follows that of JAŁOSZYŃSKI (2007a). The type material is deposited in the Bishop Museum (BM), Honolulu, U.S.A.

***Cephennodes* (s. str.) *hongkongensis* n. sp.**

(Figs. 1-4)

NAME DERIVATION

Locotypical, after Hong Kong.

DIAGNOSIS

Males of this species can be distinguished from all other members of the genus on the basis of a pair of large transverse impressions between eyes separating vertex from frons, impressions are devoid of setae and separated in middle by small tubercle bearing dense setae directed anteriorly, anterior margin of each impression is provided with setae directed from sides toward middle. Females and their diagnostic characters remain unknown.

DESCRIPTION

Male (Fig. 1). Body stout but with well marked constriction between pronotum and elytra, moderately convex, length 1.42-1.44 mm (mean 1.43 mm); pigmentation dark brown, vestiture light brown. Head as schematically shown in Fig. 2, length 0.25 mm, width 0.32-0.35 mm (mean 0.33 mm); with pair of large transverse impressions between eyes separating vertex from frontoclypeal region, impressions are devoid of setae and separated in middle by small tubercle bearing dense setae directed anteriorly, anterior margin of each impression (separating it from frontoclypeal region) bears setae directed from sides toward middle; antennae relatively long and slender, with indistinctly

separated 4- or 5-segmented club (antennomere VII differs from flagellomeres, but it is also much smaller than VIII and whether it belongs to club or not is unclear); length 0.67-0.70 mm (mean 0.68 mm); antennomere I about 1.2x as long as broad; II slightly narrower but about as long as I, about 1.5x as long as broad; III-VI equal in width but of different lengths, III slightly narrower than II, distinctly shorter than broad; IV as long as broad, V-VI subequal in length, each slightly longer than broad; VII slightly longer and broader than VI, about 1.3-1.4x as long as broad; VIII much broader but not longer than VII, about as long as broad; IX much broader and longer than VIII, about as long as broad; X much broader and longer than IX, slightly broader than long; XI broader than X, slightly longer than IX-X together.

Pronotum broader than long, broadest near middle but only slightly narrowing posteriorly, length 0.45-0.47 mm (mean 0.46 mm), width 0.67 mm; anterior and lateral margins in anterior half broadly rounded, in posterior half sides slightly rounded or nearly straight, distinctly serrate; hind angles sharp, each forms denticle projecting laterally and posteriorly; posterior margin deeply biemarginate; lateral carinae moderately broad, well visible in posterior half of pronotum, not separated from margins; lateral ante-basal pits shallow but well marked, each equally distant from posterior and lateral margin. Punctuation on central part of disc extremely fine, pronotum appears



1. *Cephenodes hongkongensis* JALOSZYŃSKI; dorsal habitus of male (actual length 1.42 mm)

almost impunctate, cuticle very glossy; more distinct and somewhat coarse but still very small punctures can be seen between each lateral pit and lateral margin, large area near each front margin is also covered with more distinct, slightly coarse but small, dense punctures. Setation relatively long, moderately dense, suberect to erect.

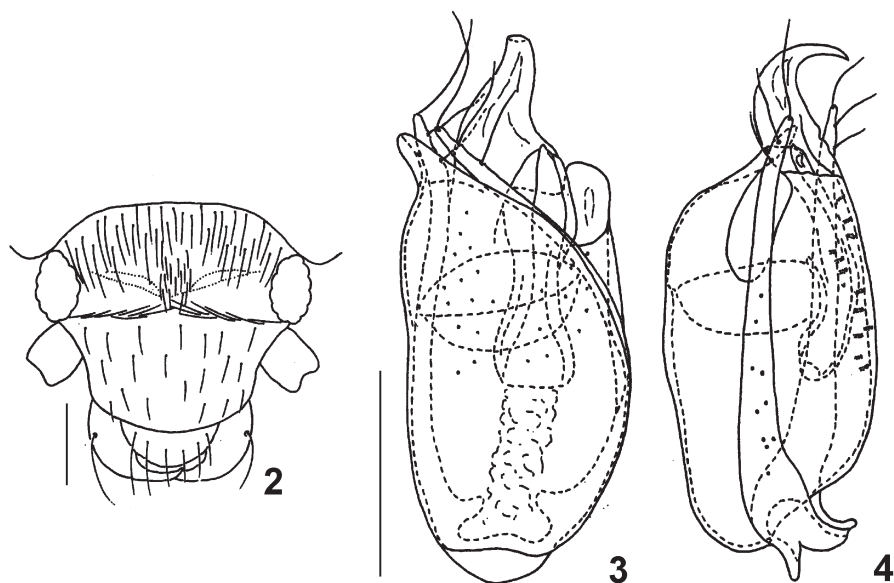
Elytra oval and relatively short, broadest near anterior third, length 0.72 mm, width 0.65 mm, elytral index 1.11. Subhumeral lines distinctly carinate, as long as about 0.45x length of elytra; adsutural area in anterior half of each elytron is slightly impressed, so that suture is raised; apices of elytra separately rounded. Punctuation much more distinct than that on pronotum, but still composed of very small punctures, margins of punctures are raised, so that surface of elytra appears coarse, punctures on median part of each elytron are separated by spaces 3-4x as long as puncture diameters; setation as that on pronotum but setae are more erect. Hind wings well developed.

Legs moderately slender and long, without peculiar characters.

Metasternum convex in middle, with very large but indistinctly delimited mesocoxal impressions, with very fine punctuation except for projection between hind coxae, which bears very large, deep and sharply marked punctures.

Aedeagus (Figs 3, 4) 0.27 mm in length, typical *simonis*-type, with asymmetrical and drop-shaped median lobe, its subtriangular and blunt apex is well separated from remaining part; apical group of projections moderately large, in lateral view with large and regularly curved ventral hook; ventral wall bears numerous tiny pores; parameres strongly asymmetrical, slender, each with three setae, base of parameres forms long collar well visible in lateral view.

Female. Unknown.



2-4. *Cephennodes hongkongensis* JALOSZYŃSKI; 2 – head of male in anterior view (simplified); 3-4 – aedeagus in dorsal (3) and lateral (4) views (scale bar: 0.1 mm)

TYPE MATERIAL

Holotype (male): two white printed labels: "HONG KONG: Hong Kong I., Pokfulan, 150 m, 31. V. 1964", "Light Trap, J.L. Gressit", and printed red label "*CEPHENNODES* (s. str.) *hongkongensis* m., det. P. JAŁOSZYŃSKI, 2007, HOLOTYPUS" (BM). Paratype: male, labels as in holotype, except for similar one added during the present study but with annotation "PARATYPUS" (BM).

DISTRIBUTION

Hong Kong.

REMARKS

The expansion of the basal part of each paramere that forms a collar around the basal orifice of the aedeagus is an interesting structure. In other known species of the genus, if the expansion is present, it is usually less distinct and always shorter than that in *C. hongkongensis*. In other aspects this species is a typical *Cephennodes* s. str.; its relationships to any of the hitherto established species groups remain unclear.

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