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The Cephenniini of China. IV. The first record of *Cephennodes* REITTER from Hainan (Coleoptera: Staphylinidae: Scydmaeninae)

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ABSTRACT. *Cephennodes* (s. str.) *qiongdaoanus* sp. nov., the first cepheniine ant-like stone beetle from the Hainan Province of China is described. The new species belongs to the *taurus* group within *Cephennodes*. The male habitus, details of modified head and aedeagus are illustrated.

Key words: Staphylinidae, Scydmaeninae, Cephenniini, *Cephennodes*, new species, taxonomy, East Palearctic, China.

INTRODUCTION

The ant like-stone beetles of the tribe Cephenniini occurring in the People's Republic of China were treated in three previously published articles (JAŁOSZYŃSKI 2005, 2007a, 2007b). To date, fifty one species from Yunnan, Guangxi, Fujian, Jiangxi, Sichuan and Shaanxi were revised. Fifty of them belong to a large and morphologically diverse genus *Cephennodes* REITTER, which is especially abundant and speciose in subtropical areas of SE Asia. The scydmaenine fauna of China is still poorly known and the number of undescribed species seen by the author in various collections greatly exceeds that of taxa hitherto known to occur in this large country.

Scydmaenus hainanensis O'KEEFE, 1998 was so far the only scydmaenine species known to occur in the southern Hainan Province. In the present paper the occurrence of Cephenniini on Hainan Island (the largest island of the province) is reported for the first time, and a new species of *Cephennodes* is described.

The measurements and nomenclature used in the description follow conventions adopted by JAŁOSZYŃSKI (2007a). The following depository acronyms are used: cPJ - collection of the author, Wrocław, Poland; SHNU - Department of Biology, Shanghai Normal University, Shanghai, China. The type specimens were labeled with red (holotype) or yellow (paratypes) printed labels bearing name of genus, subgenus and species followed by “m.” and “det. P. Jałoszyński, ‘12, HOLOTYPUS/PARATYPUS”.

TAXONOMY

Subgenus *Cephennodes* s. str.

***taurus* species group**

Males of species belonging in this group have a pair of long and thick lateral bristles expanded distally and directed anterodorsally on the vertex; a modified frontoclypeal region bearing an impression or a pair of lateral impressions; and the aedeagus representing the *simonis* type (types of the aedeagus were described and discussed by JAŁOSZYŃSKI (2007a)), with stout and drop-shaped median lobe, broad apical projections and the subapical area of the dorsal wall bearing numerous fine setae. The group previously included two Chinese species: *C. taurus* JAŁOSZYŃSKI, 2007a (from Fujian) and *C. tauroides* JAŁOSZYŃSKI, 2007b (from Sichuan), but numerous undescribed species are known to the author from SE Asia and East Palaearctic. A species similar to this group, also bearing the modified bristles on the head, is *C. mustacifrons* JAŁOSZYŃSKI & NOMURA, 2009 (from Vietnam), but it lacks the frontal impression on the head and its aedeagus is strongly elongate, with only slightly asymmetrical and not drop-shaped median lobe, resembling that of the *impressifrons* group of species (established by JAŁOSZYŃSKI (2007a)).

***Cephennodes* (s. str.) *qiongdaoanus* sp. nov.**

(Figs. 1-4)

NAME DERIVATION

Locotypical, after Qiong Dao (“Jade Island”), one of the names of Hainan Island.

DIAGNOSIS

Cephennodes qiongdaoanus differs from the two remaining members of the *taurus* species group in head modifications and genital characters. The head in males, in addition to the lateral pair of long and curved setae thickened distally, bears a single shallow median impression on the frons between supraantennal tubercles, with a median setal brush directed anterodorsally; the median part of impression is impunctate. The median lobe of aedeagus in ventral view has only slightly projecting, broadly subtriangular apex. Females are unremarkable, without head modifications, and can be identified only when collected together with males.

DESCRIPTION

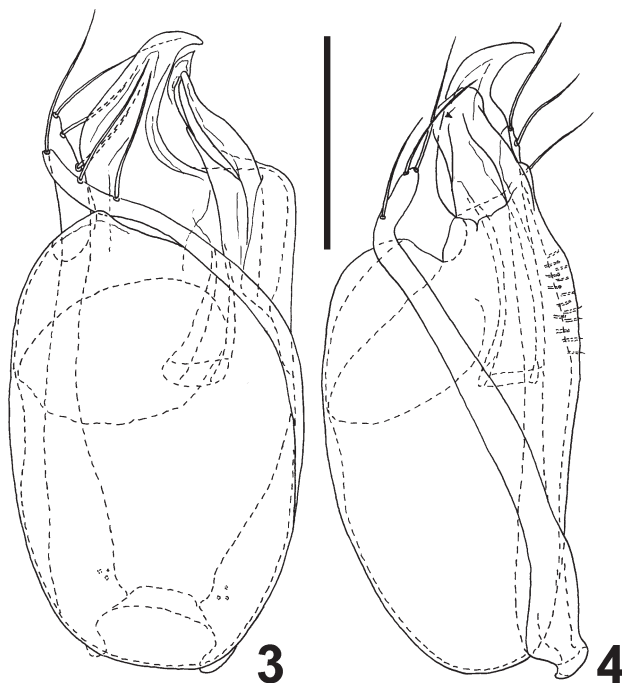
Male (Figs. 1-4). Body (Fig. 1) moderately large, length 1.70-1.73 mm, moderately elongate, with very shallow and weakly marked constriction between pronotum and elytra, dark brown, covered with light brown vestiture. Head (Fig. 2) large in relation to pronotum, length 0.23-0.25 mm, width 0.44-0.45 mm; vertex evenly convex, with a pair of long, curved and apically thickened lateral bristles, covered with small and shallow but distinct punctures, in middle separated by spaces twice as wide as puncture diameters, slightly denser on sides; frons with large but shallow median impression between feebly raised supraantennal tubercles, median part of impression with small subtriangular impunctate area bearing median setal brush directed anterodorsally; sides of frons with punctures similar to those on vertex; clypeal region distinctly demarcated from frontal impression by a pair of low lateral transverse protuberances, with punctures slightly more distinct and denser than those on frons and vertex. Setae on head dorsum long and sparse, erect. Antennae slender and compact, length 0.88 mm, with five distal antennomeres covered with slightly coarser microsculpture than



1-2. *Cephennodes qionghaoanus* sp. nov. Male dorsal habitus (1); head and prothorax in lateral view (2) (scale bars: 1 – 0.5 mm; 2 – 0.1 mm)

proximal part of antenna and forming very indistinctly delimited, gradually thickened club; antennomere I subquadrate; II slightly narrower than I but similar in length, slightly elongate; III slightly narrower than II and much shorter, distinctly transverse; IV-VI subequal in length and width, each as broad as III and slightly longer, slightly transverse; VII slightly larger than VI, about as long as broad; VIII broader than VII but minimally shorter, distinctly transverse; IX distinctly longer and broader than VIII, transverse; X slightly broader but much longer than IX, about as long as broad; XI distinctly broader than X, nearly as long as IX-X together, twice as long as broad, strongly narrowing towards nearly pointed apex.

Pronotum semielliptical in shape, broadest between middle and anterior third but indistinctly narrowing caudad, length 0.58 mm, width 0.78-0.79 mm; anterior margin broadly arcuate; lateral margins strongly rounded in anterior third, nearly straight in posterior half; hind angles nearly right and acute; posterior margin deeply biemarginate; lateral carina narrow but distinct, not separated from lateral margin; ante-basal pits distinct, each located much closer to posterior than to lateral pronotal margin. Punctures on central part of disc distinct, deep and sharply marked, separated by spaces 1.5-2x as wide as puncture diameters, broad area along posterior pronotal margin nearly impunctate, punctures on sides becoming distinctly denser and slightly shallower, those along lateral margins and in anterior corners nearly adjacent one to another. Setae sparse and long, erect.



3-4. *Cephennodes qiongdaoanus* sp. nov. Aedeagus in ventral (3) and lateral (4) views (scale bar: 0.1 mm)

Elytra oval, broadest near anterior third, length 0.90 mm, width 0.80-0.84 mm, elytral index 1.07-1.13. Subhumeral lines slightly longer than 0.6x length of elytra, distinctly carinate; apices of elytra separately rounded. Punctures much smaller and shallower than those on pronotum, but nearly as dense; setae distinctly longer and more erect than those on pronotum.

Metaventricle without postmesocoxal impressions.

Legs moderately long and slender, without modifications.

Aedeagus (Figs. 3-4) 0.30 mm in length, *simonis* type, median lobe distinctly asymmetrical, with subtriangular and only slightly projecting apex, dorsal wall with fine dense setae in subapical region; apical projections broad, with robust but short hook bent dorsally; parameres strongly asymmetrical, slender.

Female. Very similar to male, but with slightly and evenly convex frons confluent with vertex, without lateral bristles and median impression; body length 1.70-1.73 mm; length of head 0.25 mm, width of head 0.44-0.45 mm, length of antennae 0.85-0.88 mm; length of pronotum 0.55-0.58 mm, width of pronotum 0.78 mm; length of elytra 0.90 mm, width of elytra 0.80-0.81 mm, elytral index 1.11-1.13.

TYPE MATERIAL

Holotype (male): white printed label: "China: Hainan Prov. / Lingshui County / Diaoluoshan / 22-23-IV-2010 / alt. 930 m / YUAN Xiao-Zhuan leg." (SHNU). Paratypes: 1♂, 2♀♀, same data as for holotype; 1♀, white printed label: "China: Hainan Prov. / Sanya, Lingshui Count. / Diaoluoshan N.R. / alt. 1,000 m, 20-IV-2010 / YUAN Xiao-Zhuan leg.". Paratypes in SHNU and cPJ.

DISTRIBUTION

China, Hainan Prov. (Hainan Island).

REMARKS

Two remaining species belonging to the *taurus* group clearly differ from *C. qiongdaoanus* in the modifications of frons and structures of the aedeagus. *Cephennodes qiongdaoanus* has a single median frontal impression, impunctate in middle and bearing a relatively thick median setal brush directed anterodorsally. The median impunctate area is small and subtriangular in shape. *Cephennodes taurus* (JALOSZYŃSKI 2007a, figs. 17, 18) has nearly the entire frontal impression devoid of punctures; the impunctate area extends across the frons between mesal margins of compound eyes. *Cephennodes tauroides* (JALOSZYŃSKI 2007b, fig. 51) has a distinct pair of lateral impressions and additionally a median longitudinal line composed of fine but dense punctures separating the impressions, missing in *C. qiongdaoanus* and *C. taurus*. Moreover, the aedeagus of the newly described species is clearly different. The median lobes in *C. taurus* (JALOSZYŃSKI 2007a, figs. 11-13) and *C. tauroides* (JALOSZYŃSKI 2007b, figs. 48-59) have strongly projecting and narrowly subtriangular apices, while in *C. qiongdaoanus* the apex is only slightly projecting and broadly subtriangular.

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