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On *Rhinophrus* HSIAO, 1944, bona genus, with the description of a new species (*Heteroptera*: *Miridae*)

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ABSTRACT. The genus *Rhinophrus* HSIAO, 1944 is redescribed. *Rhinophrus hsiaoi* sp. n. from Malaysia is described and documented. Illustrations of the paramere of *R. borneensis* HSIAO and *R. hsiaoi* are provided.

Key words: Entomology, taxonomy, *Cylapinae*, *Rhinophrus*, *Acrorrhinium*, *Heteroptera*, *Miridae*, new species.

INTRODUCTION

In one of my previous papers (GORCZYCA 1994) I synonymized the genus *Rhinophrus* HSIAO, placing it as the junior synonym of *Acrorrhinium* Noualhier. *Rhinophrus* was erected by HSIAO (1944) on the basis of specimens from Malaysia (Sandakan, Borneo) and was placed within the subfamily *Cylapinae*. The genus included hitherto only one species, *R. borneensis*. I did not examine the type specimens of this genus, but on the basis of the drawings in HSIAO's paper, especially the pictures of head with long prominent frons, I placed this species within the subfamily *Phylinae* (*Hallodapini*) as a junior synonym of *Acrorrhinium* (GORCZYCA 1994). A few months later among specimens borrowed from the collection of the Natural History Museum, London, I found a male specimen which corresponded to Hsiao's description of *Rhinophrus*. This specimen was clearly not congeneric with *Acrorrhinium*. Simultaneously I received holotype and a male specimen of *Rhinophrus borneensis* HSIAO from the National Museum in Washington. It is clear now that these two genera represent two different subfamilies and were wrongly synonymized

(GORCZYCA 1994). The frons with a prominent, horn-like process has appeared independently in various subfamilies of *Miridae*.

Moreover, the specimen from the Natural History Museum represents a new species of the genus *Rhinophrus*.

Abbreviations: BMNH - Natural History Museum, London, England; USNM - National Museum of Natural History, Washington, U.S.A; CLBRR. - Centre for Land and Biological Resources Research, Ottawa, Canada; DABUO. - Department of Applied Biology, University of Opole.

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Rhinophrus HSIAO, 1944

Rhinophrus HSIAO, 1944: 382;
Acrorrhinium: GORCZYCA, 1994: 181, non NOUALHIER, 1895: 176. (misinterpretation)

Type species: *Rhinophrus borneensis* HSIAO, 1944 (original designation)

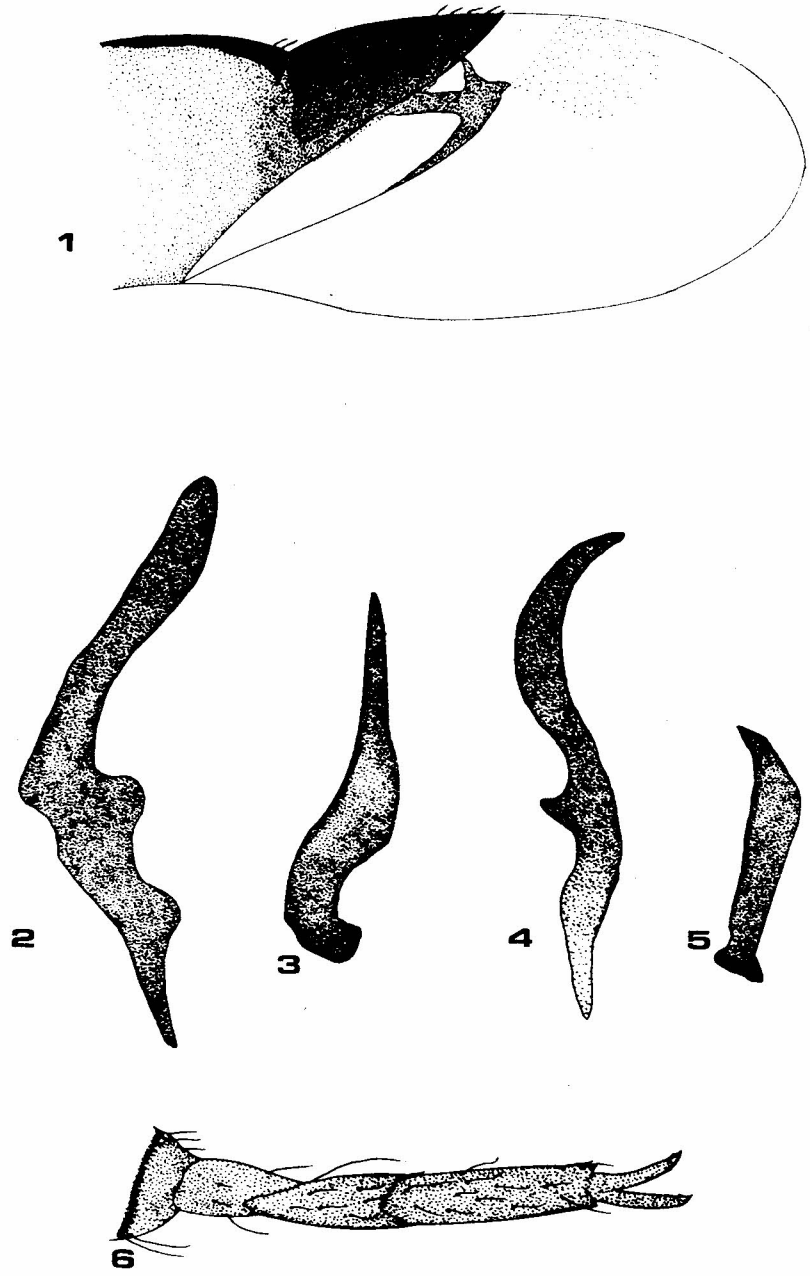
REDESCRIPTION

Body rather small, elongated and shining, covered sparingly with simple, short setae.

Head small, horizontal, distinctly longer than wide and a little wider than the apex of pronotum; in lateral view longer than high; vertex immarginate, narrower than width of eye; frons horizontal, strongly projecting, spinelike, a little curved; clypeus very prominent, compressed; eyes large, granulate, reaching gula in lateral view and considerably removed from anterior margin of pronotum; antennae inserted near the anterior margin of eyes in lateral view, between the lower edge of spinelike frons and clypeus; antennae shorter than body, first segment thickest, second slightly thickened at apex, covered with short setae. Rostrum gradually tapering toward apex, reaching mid coxae; first segment not longer than head.

Pronotum broader than long, finely transversely rugose, strongly widened behind calli, over twice as wide at base as at apex, lateral margins vertically rounded, posterior margin broadly sinuate before scutellum; apical collar flat; calli flat, conflated; mesoscutum widely exposed, scutellum triangular, flat, wider than long.

Hemelytra fully developed, lateral margins nearly parallel (especially in male); cuneal fracture distinct; cuneus almost twice as long as broad; membrane well-developed, bicellulate. HSIAO (1944) presented the membrane as unicellulate. In fact the venation is not fully visible but there is another small, indistinct cell (fig. 1). Hind wing with veins hardly visible, the leading edge distinctly sclerotized.



1-3, 6. *Rhinophrus hsiaoi*: 1 - distal part of hemelytra; 2-3 - parameres, 6 - protarsus; 4-5. *R. borneensis*: 4-5 - parameres

Xyphus with disk flat, lateroposterior margins elevated; ostiolar peritreme small.

Legs with long anterior coxae, profemora distinctly enlarged (as if they were used to hold the prey), hind femora flattened, slightly thickened at the apical third; tibiae without spicules, covered with short setae; tarsi slender, three-segmented, claws slightly curved in the apical part, with a very small, subapical tooth (fig. 2). Parameres small and narrow.

Rhinophrus hsiaoi sp. n.

ETYMOLOGY

The name is proposed in honour of Dr Hsiao TSAI-YU, an outstanding Chinese heteropterist who distinguished the genus.

DIAGNOSIS

Closely allied and very similar to *Rhinophrus borneensis* but differs from it in larger body, pale second antennal segment, which is additionally more thickened at the apex, and the size and shape of the parameres (fig. 3-6).

DESCRIPTION

Male - Body length 3.6 mm., width 0.7 mm.

Head almost entirely black, shining. Length of head with frontal process 0.6 mm; eyes large, ocular index 0.75; first antennal segment dark brown, shining, a little curved in middle, covered with single setae; second segment pale only slightly darkened at apex, covered with dense, short setae; thickened at apex; third and fourth segments slender, brown, covered with setae; length of antennal segments (in mm): 0.56:1.0:0.67:0.44.

Pronotum black, shining, length 0.57 mm, width at apex 0.33 mm; width at base 0.8 mm, scutellum black shining; length 0.28 mm, width 0.35 mm.

Hemelytra reddish brown, partly transparent, distinctly surpassing apex of abdomen; covered with short setae; cuneus reddish, dark; embolium dark; membrane pale-grey, with a brown spot; hemelytra length 1.95 mm, width 0.39 mm. (excluding clavus), cuneus length 0.40, width 0.18 mm

Procoxae yellowish, profemora dark brown, tibiae brown, pale only in the middle and at the base, tarsi pale; mid legs pale; metacoxae pale, metafemora pale at the base and dark brown at apex, tibiae brown with pale spots at the base and apex, tarsi pale, third segment of the protarsi almost as long as first and second together.

Female - unknown.

TYPE MATERIAL

Holotype male: Malaysia: "Sabah: Sinda, 1800`, viii, 1977" Brit. Mus. 1984-20., (BMNH).

Rhinophrus borneensis Hsiao, 1944

TYPE MATERIAL

Holotype female: No. 56725, Sandakan, Borneo BAKER, (USNM)

OTHER MATERIAL EXAMINED

1 male *Rhinophrus borneensis* Hsiao, Sandakan, Borneo, BAKER, det. T.J. HENRY, 1985 (USMN).

REMARKS

The tribe *Rhinophrini* was proposed by HSIAO (1944), who also stated that *Rhinophrus* was related to the genus *Fulvius* STÅL. CARVALHO (1952) placed this genus within the tribe *Cylapini*. In SCHUH (1995) *Cylapinae* are listed in alphabetical order. The subfamily placement of *Rhinophrus* is problematic. HSIAO's suggestion (1944) that *Rhinophrus* is allied with *Fulviini* seems fully justified when the characters of the head, shape of the claws, and the characters of parameres are considered.

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