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Heterocerus paranaensis sp. nov. from Brazil (Insecta: Coleoptera: Heteroceridae)

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Abstract. *Heterocerus paranaensis* sp. nov. from Brazil (Paraná) is described, illustrated and compared with similar species. The occurrence of *H. similis* Grouvelle, 1896 in the Brazilian state Paraná is confirmed for the first time.

INTRODUCTION

During the study of small series of unidentified Heteroceridae collected from the Bolivian state of Paraná I identified an unidentifiable female of *Tropicus* sp. (3 spec.), 33 specimens (12 ♂♂, 21 ♀♀) of *H. similis* Grouvelle, 1896 (first record for Paraná state) and one (♂) specimen of *H. paranaensis* sp. nov. which is described herein. This species is close to *H. mollinus* Kiesenwetter, 1851 and *H. sinuosus* Pacheco, 1964.

Knowledge of Heterocerus fauna in Brazil is relatively good, currently a total of 31 species of this genus are known, (13 species of *Heterocerus* Fabricius, 1792 and 18 species of *Tropicus* Pacheco, 1964). Their occurrence in the individual federal states are in Skalický (2017).

MATERIAL AND METHODS

Separate labels are indicated by double slashes, locality data are cited verbatim in "quotation marks". Author's remarks are given in square brackets. Holotype specimen is deposited in the author's collection.

RESULTS

Heterocerus paranaensis sp. nov.
(Figs. 1-5)

Type material. Holotype (♂): "Brazil, Paraná, União da Vitória, Iguazu r[iver], 18.xi.2001, Vít Dvořák lgt." // "Holotype Heterocerus paranaensis Skalický det. Skalický 2021" [red label].

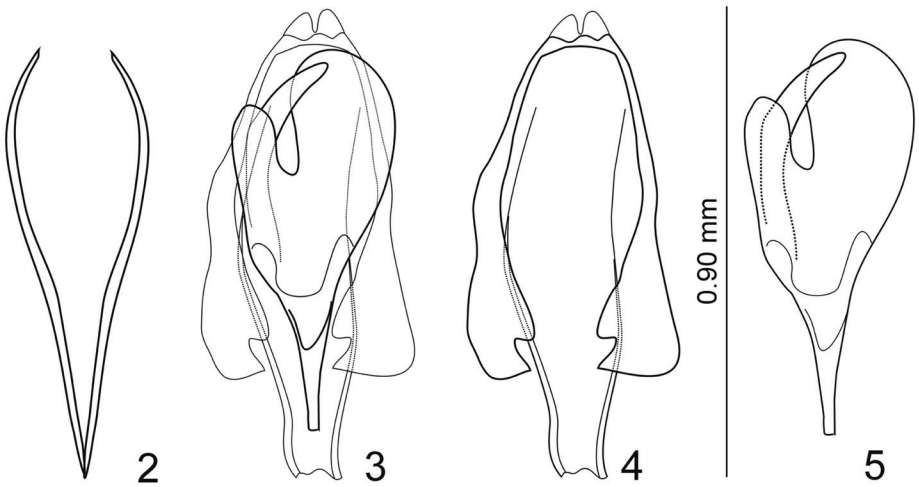
Notes. Genitalia is mounted in Canada balsam. According to the collector, this is a night hunt with using light from the car.

Description. Holotype ♂: (Fig. 1), total length 4.35 mm; elytra 2.75 mm long, 1.75 mm wide across shoulders. Elytra uniformly brown, without visible spots, pronotum black to brown, pale brown lateral. Labrum, clypeus and head black to brown, legs and ventral surface pale brown. Mandibles relatively short, robust; dorsal subapical teeth rounded, anterior margins with two strong spines. Prostheca, without notch, series of teeth at interior side sparse. Visible part of labrum as wide as long, laterally curved, anterior angles softly serrate in median portion; surface of labrum softly granular with dense, yellowish setae laterally. Antennae 11- segmented with 7- segmented club. Scape and pedicel triangular, with long erected setae. Clypeus without anterior horns; anterior margin emarginate, surface finely punctured, with short, brownish, semi-erect setae intermixed with sparse and long erect ones. Head finely granular, setae short, adjacent, intermixed with long erect setae above eyes. Pronotum oval, wider than long (ratio 1.85: 1), as wide as base of elytra, pronotal base completely rimmed. Surface of pronotum finely granular (granules approximately as large as eye facets) without intermixed larger punctures. Setae on pronotum sparse, yellowish, short, adjacent, with longer and erect setae laterally. Scutellum triangular, about 1.5 times longer than wide, anterior corners rounded, posterior corner pointed, base of scutellum under elytral line; surface regularly granulate, granules approximately as large as eye facets. Elytra with few slight longitudinal furrows; with well developed humeral depressions extending obliquely to almost third length of elytra. Scutellar depressions well developed. Surface of elytra distinct granular, size of punctures varying from as little as a half of, to as much as twice that of eye facets, punctures separated by a third to half of their own width. Setae on elytra yellowish, sparse, adjacent, with intermixed longer setae. Epipleural ridges absent. Ventral surface relatively densely and coarsely granular; setae adjacent, short. Metaventrite with post-mesocoxal ridge. Mesoventrite U-shaped, with three short spines in front of each mesocoxa, prosternal spine wide. Post-metacoxal line absent. Stridulatory arch marked with transverse striae. Protibia with 10 stout spines, mesotibia with 8 weak long spines. Spines of metatibia weak, concealed by setae. Spiculum gastrale (Fig. 2) 0.85 mm long, V-shaped, arms narrow, firmly connected by membrane apically. Aedeagus (Figs. 3-5) triangular, 0.90 mm long, well sclerotized; parameres short, fused with phallobasis. Supporting sheath without border posteriorly. Penis oblong, with long processus accessorius on the left side.

Female. Unknown.

Differential diagnosis. Due to the shape of the male genitalia and external marks (size, basal color, elytra without spots, 11- segment antennae, male clypeus without anterior horns, metaventrite with postmesocoxal spine), *H. paranaensis* sp. nov. cannot be assigned to any group according to Charpentier (1965). The closest groups are *elongatus* and *breboi* from which it differs mainly by the absence of clypeal horns (present in both groups), absent elytral spots (present in both groups) and in the morphology of the male genitalia (parameteres and median plate connected only by the membrane in the *elongatus* group, absence of processus accessorius in median lobe in the *bredoi* group, and presence of processus accessorius on right side in the *elongatus* group).

Figs. 1-5: *Heterocerus paranaensis* sp. nov. holotype: 1- habitus, dorsal view; 2- spiculum gastrale, dorsal view; 3- aedeagus, dorsal view; 4- tegmen, dorsal view; 5- penis, dorsal view.



The group of *neoheterocerus,* originally described as a new genus by Pacheco (1964) and assigned back to the genus *Heterocerus* by King & Lago (2012), with distribution in the Nearctic and Neotropical regions, has a partially similar species of male genitalia, all species in this group do not have any post-mesocoxal ridge on the metaventrite.

H. paranaensis sp. nov. is similar to *H. coheni* Skalický, 2007 occurring in Ecuador (Skalický 2007) in external marks, from which it differs in the shape of the male genitalia (compare figs.

1-4 in Skalický (2007) and Figs. 1-5 in this paper). Male genitalia is partially similar to two species (*H. mollinus* Kiesenwetter, 1851 and *H. sinuosus* Pacheco, 1964) originally described in genus *Lanternarius* sensu Pacheco (1964) and assigned to the genus *Heterocerus* also in King & Lago (2012) (compare figs. 12-15, 132-139 and 157-162 in Pacheco (1964) and Figs. 1-5 in this paper). Both species listed above have a wide distribution in Canada and the USA, for *H. sinuosus* there is a known distribution in Mexico.

Etymology. Species name refers to the occurrence site.

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