

A new species in the formerly monotypic genus *Heptarthrius* SUFFRIAN (Chrysomelidae: Cryptocephalinae).

by

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Abstract

The genus *Heptarthrius* SUFFRIAN, 1866 was described by monotypy. No information on *Heptarthrius* other than the original description was available. A new species from Brazil, *H. triangulum*, is described and compared with *H. longimanus* SUFFRIAN, 1866 from Venezuela. The central groove of the prosternum, the shape of the antennae and the large size were found to be characters suitable to distinguish *Heptarthrius* from other genera within the Monachina.

Keywords: Coleoptera, Chrysomelidae, Cryptocephalini, *Monachina*, Neotropics.

Resumo

O gênero *Heptarthrius* SUFFRIAN, 1866 foi descrito baseado em uma monotípia. Além da descrição nenhuma outra informação sobre *Heptarthrius* estava disponível. Uma nova espécie encontrada no Brasil, *H. triangulum*, é descrita e comparada com *H. longimanus* SUFFRIAN, 1866 da Venezuela. O sulco central do prosterno, a forma da antena e o tamanho são considerados características válidas para distinguir *Heptarthrius* de outros gêneros em Monachina.

Introduction

Three genera of the subtribe *Monachina* CLAVAREAU, 1913 of Cryptocephalini are of Neotropical distribution, namely *Lexiphanes* GISTL, 1848 (= *Monachus* CHEVROLAT, 1837), *Stegnocephala* BALY, 1877 and *Heptarthrius* SUFFRIAN, 1866 (SEENO & WILCOX, 1982). BLACKWELDER (1946) listed 112, 7 and 1 species in *Lexiphanes*, *Stegnocephala* and *Heptarthrius*, respectively. *Heptarthrius* was described by monotypy. No information on *Heptarthrius* other than the original description was available. The field work of the Tropical Ecology Working Group of the Max-Planck-Institute for Limnology resulted in the discovery of a second species of *Heptarthrius*. In this study, this new species is described and compared with the species described by SUFFRIAN (1866).

Material and methods

The dried adult was dissected by separating the abdomen in water, the contents were soaked in cold diluted KOH and then washed in water. The eye length was measured in lateral view, the interocular space in frontal view. Abbreviations used: MNHUB = Museum für Naturkunde der Humboldt-Universität, Berlin,

Results

Heptarthrius longimanus SUFFRIAN, 1866

Linn. Ent. 16: 2; Chapuis (1874) Gen. Col. 10: 173; Blackwelder (1946): 643.

Labeling. Holotype (male, MNHUB): / 24040 [white] / *longimanus* (MOR.) SUFFR.* Venezuel. MOR. [green].

Size [mm]: length 4.9, width of elytra at humeri 2.8, length of pronotum 2.0, width 2.7.

Head. Head dark rusty-red, not visible in dorsal view; eyes evenly convex; eyes very large and upper lobes closely approached, therefore ratio of distance between upper lobes to eye length is 0,9:4,2; eye length about 6 x gena; canthus deep and triangular; antenna see Fig. 17; antennomers without circular sensillate depressions, segments 5-11 apically expanded, antennae inserted high on frons; clypeal area well separated by a notch; labial palpi acute.

Thorax. Pronotum dark rusty-red, dull, glabrous, impunctate except for very shallow, sparse punctures seen at 40 x, lateral margins even, not simultaneously visible in dorsal view; basal margin of pronotum with dense row of fine teeth, followed by incomplete row of coarse punctures; middle of basal margin expanded and slightly raised; scutellum heart-shaped, glabrous and shiny, not raised, without basal ridge; prosternal process with sides sinuate, apically and laterally with ridges, apex convex, with central longitudinal ridge; elytra dark rusty-red, glabrous, impunctate except for traces of rows of punctures which are very shallow in basal half, lateral row of punctures between shoulder and lateral margin and six deep elongate impressions between shoulder and scutellum, base of elytra simple; elytra apically rounded, reaching upper third of pygidium only, but pygidium not visible in dorsal view; epipleura with one row of fine punctures, epipleura half length of elytra and broad, as wide as distance between lateral margin of elytron and lateral row of punctures; legs without tibial spurs; external edge of tibiae distinctly grooved, tarsi slender (Fig. 10), claws bifid (Figs. 6, 8), fore-tibia as long as fore-femur.

Abdomen. Venter dark brown, except for light brown last sternite and pygidium, puncturation of venter and pygidium coarse, with very short white setae; lateral lobe at base of abdomen almost rectangular (Fig. 15); apex of male abdomen (Fig. 13) without hollow; **Male genitalia:** Aedeagus was not extracted because the historic type is fragile, and the information was not necessary to distinguish from the following species.

Distribution and biology. Known from the type specimen from Venezuela only. No information on biology and host plants is available. The larva is unknown.

Heptarthrius triangulum n.sp.

Locus typicus: Brazil, Amazonia, Ilha de Marchantaria (03°15'S, 59°58W).

Labeling. Holotype (male, INPA): / Brazil, Amazonia, Ilha de Marchantaria (03°15'S, 59°58W) [white label] / emergence trap, 22.I.1982, leg. J. Adis, E11MA [white] / *Heptarthrius triangulum* n.sp. HOLOTYPUS Schöller des. [red] /.

Diagnosis: A black species with elytra partly rusty-yellow (Fig. 1), pronotum shagreened and fore-tibia 1.2 times longer than fore-femur.

Size [mm]: length 3.9, width of elytra at humeri 2.4, length of pronotum 1.5, width 2.3.

Head. Head with transverse wrinkles, with groove between upper lobes of eyes; eyes

evenly convex; very large and upper lobes approached, therefore ratio of distance between upper lobes to eye length is 0,1:1; eye length about 8 x gena; canthus deep and triangular; antenna see Fig. 16; segments without circular sensillate depressions, antennae inserted high on frons; clypeal area well marked; labial palpi acute.

Thorax. Pronotum shagreened, impunctate except for a basal row of punctures; lateral margins even, not simultaneously visible in dorsal view; middle of basal margin expanded and slightly raised; basal margin of pronotum with dense row of fine teeth; scutellum triangular, glabrous, shagreened and impunctate, without basal ridge, not apically raised above elytra; elytra striate, scutellar row and 9 rows, punctures very fine, interstices shiny, elytra apically rounded, epipleura 1/2 length of elytra, with some punctures.

Abdomen. Venter black, dull except for margins of meta- and mesothorax brown; apex of male abdomen (Fig. 12) without hollow; prosternal process (Fig. 5) with sides sinuate, apically and laterally with ridges, apex convex, with central longitudinal ridge; legs as in Figs. 1, 11; external edge of tibiae distinctly grooved, claws appendiculate (Figs. 7, 9); lateral lobe at base of abdomen rounded (Fig. 15); puncturation of pygidium coarse and dense, with short white setae. Aedeagus: Figs. 3 and 4 show aedeagus soaked in water, if dried membranous lobes within orificium overlap partly apical part of aedeagus, externally visible structures of internal structure of aedeagus are indicated only in Figs. 3 and 4, I refrained from dissecting the aedeagus of the only specimen known so far, aedeagus in glycerine-filled microtube on pin.

Etymology. The name refers to the shape of the dark pattern on the elytra (Fig. 1).

Distribution and biology. Known from the type specimen from Central Amazonia, Brazil only. The specimen was collected from *Echinochloa crassipes* H.B.K. (HITCH). (Gramineae = Poaceae) in a seasonal várzea or whitewater floodplain with the help of an emergence trap (ADIS, 2002a). The collection site was described in ADIS (2002b). The larva is unknown.

Discussion

This study confirms the position of *Heptarthrius* within the Monachina. SUFFRIAN (1866) pointed out the central groove of the prosternum (Fig. 5), which can be found in *Heptarthrius* only within the Monachina, but which is common in the Pachybrachina. The latter character in combination with the shape of the antenna (Fig. 17) and the large size of the beetle were SUFFRIAN's arguments to place *Heptarthrius* in a basal position within the Monachina. Genitalia were not studied by SUFFRIAN. The membranous lobes within the orificium of the aedeagus overlapping partly the apical part found in *Heptarthrius* were not observed in *Lexiphanes* yet, however, few species were studied so far. The two species of *Heptarthrius* can be distinguished as follows:

Key to the species of *Heptarthrius*.

- 1 Elytra glabrous, impunctate except for traces of rows of punctures which are very shallow in the basal half, dark rusty-red; fore-tibia as long as fore-femur *H. longimanus*
- Elytra striate, scutellar row and 9 rows, punctures very fine, rusty-yellow with black triangular-shaped marking; fore-tibia 1.2 times longer than fore-femur *H. triangulum*

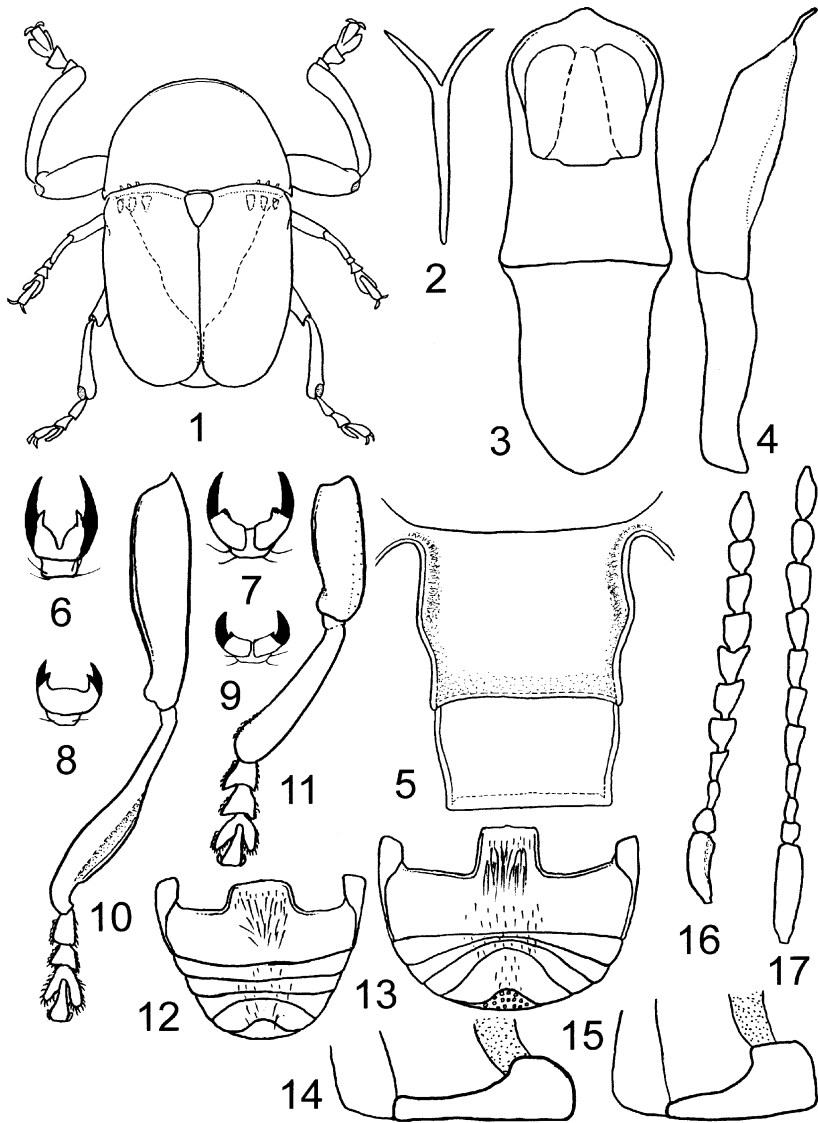
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Figs. 1-17:

1-5: *H. triangulum* sp. nov.: 1: dorsal habitus, triangular-shaped dark marking on elytra indicated; 2: tergalapodem; 3: aedeagus dorsal; 4: aedeagus lateral; 5: prosternal and mesosternal process; 6, 7: claw, hind leg: *H. longimanus* SUFFRIAN (6); *H. triangulum* (7); 8, 9: claw, fore leg: *H. longimanus* (8); *H. triangulum* (9); 10, 11: fore leg: *H. longimanus* (10); *H. triangulum* (11); 12, 13: abdomen ventral: *H. triangulum* (12); *H. longimanus* (13); 14, 15: abdomen lateral: *H. triangulum* (14); *H. longimanus* (15); 16, 17: antenna: *H. triangulum* (16); *H. longimanus* (17).

