



Four new species and first nominal record of *Chasmogenus* Sharp, 1882 (Coleoptera: Hydrophilidae) from Brazil

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Abstract

The genus *Chasmogenus* Sharp, 1882 (Hydrophilidae: Acidocerinae) is recorded from Brazil for the first time. Four new species are described and illustrated from the Southeastern Region of the country: *C. fluminensis* sp. nov. (Rio de Janeiro State), *C. liliana* sp. nov. (Rio de Janeiro State), *C. itatiaia* sp. nov. (Minas Gerais and Rio de Janeiro States), and *C. ubatuba* sp. nov. (São Paulo State). *Chasmogenus sapucay* Fernández, 1986 is recorded for the first time from Northern and Southeastern Brazil. Notes on morphology and an updated key for the South American species are provided.

Key words: Acidocerinae, Description, Hydrophilinae, identification key, Neotropics, New records

Resumo

Quatro espécies novas e primeiro registro nominal de *Chasmogenus* Sharp, 1882 (Coleoptera: Hydrophilidae) para o Brasil. O gênero *Chasmogenus* Sharp, 1882 (Hydrophilidae: Acidocerinae) é registrado para o Brasil pela primeira vez. Quatro espécies novas são descritas e ilustradas proveniente da região sudeste do país: *C. fluminensis* sp. nov. (Rio de Janeiro), *C. liliana* sp. nov. (Rio de Janeiro), *C. itatiaia* sp. nov. (Minas Gerais e Rio de Janeiro) e *C. ubatuba* sp. nov. (São Paulo); *C. sapucay* Fernández 1986 é registrada pela primeira vez nas regiões Norte e Sudeste. Notas sobre a morfologia e uma chave atualizada para as espécies sul-americanas são fornecidas.

Palavras-chave: Acidocerinae, Descrição, Hydrophilinae, Chave de identificação, Região Neotropical, Novos registros

Introduction

The water scavenger beetle genus *Chasmogenus* Sharp, 1882 (Hydrophilidae: Acidocerinae) occurs in all zoogeographic regions except the Nearctic and contains about 40 valid species (Hansen 1999, Short & Hebauer 2006, Short & Fikáček 2011). Originally described by Sharp (1882) for a single species from Guatemala and Panamá (*C. fragilis* Sharp, 1882), *Chasmogenus* was later synonymized with *Crephelochares* Kuwert 1890 by d'Orchymont (1919), considering them as a single subgenus of *Helochares* Mulsant, 1844. Subsequently, d'Orchymont (1939) separated *Chasmogenus* and *Crephelochares* and treated them both as valid subgenera of *Helochares*.

For many years, knowledge of this group remained scanty for the Neotropics until the work of Fernández (1986). In this paper, Fernández reinstated *Chasmogenus* as a genus in its own right, redescribed *C. fragilis* Sharp and described one new species (*C. sapucay* Fernández 1986) from Paraguay. In addition, *Crephelochares* was synonymized with *Chasmogenus*. Hebauer (1992) regarded *Crephelochares* a subgenus of *Chasmogenus*, which differs from *Chasmogenus* s. str. by having antennae 9-articulated and more complex genitalia. As currently defined, *Chasmogenus* s. str. was restricted to the Neotropics, while *Crephelochares* was found only in the Old World. Hansen (1991, 1999) considered these differences rather subtle and the two taxa very similar, and treated *Chasmogenus* and *Crephelochares* as synonyms, following the proposed by d'Orchymont (1919) and Fernández (1986). This classification will be followed by us in this paper.

- 9 Body length larger than 5.0 mm (6.0–6.2 mm). Anterior clypeal margin rounded, without emargination. General dorsal punctures of elytra and pronotum moderately coarse, only slightly smaller than systematic punctures. Phallobase elongated with manubrium weakly distinct. Inner margin of parameres emarginated on apical fifth, outer margin subparallel to somewhat concave medially. Median lobe constricted medially (Fig. 26) *C. itatiaia* **sp. nov.**
- Body length smaller than 5.0 mm (3.80–4.55 mm). Anterior clypeal margin with rounded emargination, exposing a gap between clypeus and labrum (*e.g.* Fig. 28). General dorsal punctures of elytra and pronotum fine, much smaller than systematic punctures. Phallobase short with manubrium distinct. Inner margin of parameres slightly emarginated on apical three-tenths, outer margin slightly concave. Median lobe not constricted medially (Fig. 24). *C. lilianae* **sp. nov.**

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