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## New species and new records of the hygropetric water beetle genus *Oocyclus* Sharp from South America (Coleoptera: Hydrophilidae)

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### Abstract

Three new species of *Oocyclus* Sharp, 1882 are described from tropical South America: *O. maluz* sp. n. (Venezuela), *O. miza* sp. n. (Venezuela), and *O. brunneus* sp. n. (Bolivia). New distributional records are provided for *O. andinus* Short & García, *O. coromoto* Short & García (newly recorded from Suriname), *O. floccus* Short & García (newly recorded from Guyana and Suriname), *O. iguazu* (Oliva), *O. meridensis* Short & García, *O. petra* Short & García (newly recorded from Guyana and Suriname), *O. trio* Short & Kadosoe (newly recorded from Guyana), *O. trujillo* Short & García, and *O. yubai* Clarkson & Short (newly recorded from Paraguay). Updates to the keys of the Brazilian and Venezuelan *Oocyclus* species are provided.

**Key words:** Hygropetric habitats, Neotropics, Guiana Shield, Laccobiini, new species

### Introduction

Recent attention to waterfall and other hygropetric habitats in tropical South America has led to the discovery of a mostly unknown aquatic beetle fauna. The water scavenger beetle genus *Oocyclus* Sharp, 1882 is one of the most common beetle taxa found in these habitats. Just five years ago, only five species of the genus were described for continental South America (Hansen 1999, Short & Hebauer 2006). Presently there are 32 described species and more continue to be discovered nearly every year (García-Hernandez 2009, Short & García 2010, Short & Kadosoe 2011, Clarkson & Short 2012). Here, we describe three new species that were recently discovered in Venezuela and Bolivia, as well as report a number of new species occurrences for Guyana, Suriname, and Paraguay that extend the distributions for the taxa.

### Material and methods

Specimens were examined using an Olympus SZX16 binocular microscope to 100× magnification. Habitus photographs were taken with a Microoptics system. Between 15 and 25 images were taken for each figure and then aligned and stacked using CombineZP software. Habitus photos and genitalia drawings of all new species are based on paratype specimens.

We examined more than 800 specimens for this study, which are deposited in the following institutions:

BMNH	Natural History Museum, London, United Kingdom (M. Barclay, C. Taylor)
MALUZ	Museo de Artrópodos, Universidad del Zulia, Venezuela (J. Camacho)
MIZA	Museo del Instituto de Zoología Agrícola, Maracay, Venezuela (L. Joly)
NMPC	National Museum, Prague, Czech Republic (M. Fikáček)

Nature Reserve, base of Voltzberg, 4.67387°N, 56.1847°W, 86 m, 29.vii.2012, leg. Short, Maier, McIntosh, & Kadosoe, flowing seep over rock, SR12-0729-01A (57 exs., SEMC, NZCS).

**Remarks.** This species was first discovered and described from southwestern Suriname near the boarder with Guyana. Here, it is newly recorded from Guyana as well as additional localities in north-central Suriname.

### ***Oocyclus trujillo* Short & García, 2010**

**New material examined (35): VENEZUELA: Merida State:** 2 km N. La Azulita, 8°44.114' N, 71°26.898' W, 873 m, 28.i.2012, leg. Arias & Gustafson, seeps, VZ12-0128-01A (35, SEMC).

### ***Oocyclus yubai* Clarkson & Short, 2012**

**New material examined (49): PARAGUAY: Paraguari District:** Parque Nacional Ybycui, La Rosada, 22.iv.1980, leg. Oscar R. Martinez, (49 exs., USNM, SEMC).

**Remarks.** This species was previously only known from southern Brazil. It is the second species to be recorded from Paraguay, after *O. iguazu* (Clarkson & Short 2012).

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### **References**

- Clarkson, B. & Short, A.E.Z. (2012) Revision of the *Oocyclus* Sharp of Brazil with description of ten new species (Coleoptera: Hydrophilidae: Laccobiini). *Zootaxa*, 3183, 1–35.
- García-Hernandez, A.L. (2009) Dos nuevas especies de *Oocyclus* (Coleoptera: Hydrophilidae) de Colombia. *Revista Colombiana de Entomología*, 35, 250–252.
- Hansen, M. (1999) *World Catalogue of Insects 2: Hydrophiloidea (s. str.) (Coleoptera)*. Apollo Books, Amsterdam, 416 pp.
- Oliva, A. (1996) First mention of the genera *Beralitra* Orchymont, 1919 (with a new species) and *Oocyclus* Sharp, 1882 (Coleoptera: Hydrophilidae: Laccobiini) from Argentina. *Bulletin et Annales de la Société royale belge d'Entomologie*, 132, 35–43.
- Short, A.E.Z. & García, M. (2010) A review of the *Oocyclus* Sharp of Venezuela with description of twelve new species (Coleoptera : Hydrophilidae : Laccobiini). *Zootaxa*, 2635, 1–31.
- Short, A.E.Z. & Hebauer, F. (2006) World catalogue of Hydrophiloidea – additions and corrections, 1 (1999–2005) (Coleoptera). *Koleopterologische Rundschau*, 76, 315–359.
- Short, A.E.Z. & Kadosoe, V. (2011) Chapter 4. Aquatic Beetles of the Kwamalasamutu Region, Suriname (Insecta: Coleoptera). In: O'Shea, B.J., Alonso, L.E. & Larsen, T.H. (Eds.), *A Rapid Biological Assessment of the Kwamalasamutu region, Southwestern Suriname*. RAP Bulletin of Biological Assessment 63. Conservation International, Arlington, VA, pp. 79–90