



## A review of the *Oocyclus* Sharp of Venezuela with description of twelve new species (Coleoptera: Hydrophilidae: Laccobiini)

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### Abstract

The water scavenger beetle genus *Oocyclus* Sharp is reported from Venezuela for the first time. A review of more than 3000 specimens revealed fourteen species, including twelve described as new: *O. andinus* **sp. n.**, *O. bolivari* **sp. n.**, *O. coromoto* **sp. n.**, *O. floccus* **sp. n.**, *O. galbus* **sp. n.**, *O. meridensis* **sp. n.**, *O. petra* **sp. n.**, *O. pico*, **sp. n.**, *O. pittieri* **sp. n.**, *O. sapphirus* **sp. n.**, *O. trujillo* **sp. n.**, and *O. zulianus* **sp. n.** Two species previously known only from Central America, *O. maculatus* Sharp and *O. substillus* Short & Perkins, are recorded for the first time in South America from localities along the Andean border with Colombia. Nearly all species are associated with hygropetric habitats such as wet rocks, waterfalls, and seepages; one species, *O. petra*, was also occasionally found in sandy stream margins that lacked rock substrate. The Neotropical genus *Beralitra* d'Orchymont is placed in synonymy with *Oocyclus*, yielding two new

combinations: *Oocyclus obscurus* (d'Orchymont) comb. n. and *Oocyclus iguazu* (Oliva) comb. n. A key to the Venezuelan species of *Oocyclus* is provided in addition to habitus and diagnostic character illustrations.

**Key words:** aquatic beetles, taxonomy, Neotropical Region, hygropetric habitats, new synonym, *Beralitra*

## Resumen

Escarabajos del género *Oocyclus* Sharp son reportados por primera vez para Venezuela. Catorce especies son registradas, incluyendo doce descritas como nuevas: *O. andinus* sp. n., *O. bolivari* sp. n., *O. coromoto* sp. n., *O. floccus* sp. n., *O. galbus* sp. n., *O. meridensis* sp. n., *O. petra* sp. n., *O. pico*, sp. n., *O. pittieri* sp. n., *O. sapphirus* sp. n., *O. trujillo* sp. n., y *O. zulianus* sp. n. Dos especies previamente conocidas solo en Centroamérica, *O. maculatus* Sharp and *O. substillus* Short & Perkins, se registran por primera vez en Suramérica en localidades a lo largo de la frontera andina con Colombia. Casi todas las especies están asociadas a hábitats higropétricos como rocas, cascadas y grietas húmedas; una especie, *O. petra*, fue encontrada ocasionalmente en los márgenes de arroyos arenosos que no tenían un sustrato rocoso. El género Neotropical *Beralitra* d'Orchymont se establece como sinonimia de *Oocyclus*, con dos combinaciones nuevas: *Oocyclus obscurus* (d'Orchymont) comb. n. y *Oocyclus iguazu* (Oliva) comb. n. Se propone una clave para las especies de Venezuela así como ilustraciones de caracteres diagnósticos y de hábito.

**Palabras clave:** escarabajos acuáticos, taxonomía, región neotropical, hábitats hygropetric, nuevo sinónimo, *Beralitra*

## Introduction

The water scavenger beetle genus *Oocyclus* Sharp, 1882 consists of 35 species in the Neotropical and Oriental Regions. It is the largest genus in the “*Oocyclus*-group”, which also includes the genera *Beralitra* d'Orchymont, 1919, *Ophthalmocyclus* Komarek, 2003, *Scoliopsis* d'Orchymont, 1919, and *Tritonus* Mulsant, 1844. Nearly all species of the *Oocyclus*-group for which we have biotic information occur in hygropetric habitats, including rock seeps and waterfalls. Due to recent surveys that have targeted collecting in these habitats, our understanding of *Oocyclus* has grown tremendously in the last ten years, with many new species being described (e.g. Short & Perkins 2004: Mesoamerica; Short & Swanson 2005: Thailand; Minoshima 2009: Laos; Short 2009: India).

While a few species of *Oocyclus* are known from southern South American (Brazil, Argentina, Paraguay), none are recorded from the northern half of the continent. Extensive surveys of hygropetric habitats throughout Venezuela and a review of material in existing collections have yielded more than 3000 specimens, which represents the largest single review of *Oocyclus* material to date. This material is comprised of 14 species, including 12 described here as new.

## Material and methods

More than 3000 specimens were examined for this study. Most of these (1947; 65%) were recently collected by us as part of a broader survey of aquatic insects in Venezuela. Specimens were examined using an Olympus SZX16 binocular microscope to 200× magnification. Habitus photographs were taken with a Microptics system. Between 15 and 25 images were taken for each figure, and subsequently aligned and stacked using CombineZ. Habitus photos and genitalia drawings of all new species are based on paratype specimens.

In descriptions the total body length divided by the greatest body width is abbreviated as TL/GW.

## Depositories

CIBC      Centro de Investigaciones Biológicas, Universidad del Zulia, Venezuela (M. García)  
CMNC      Canadian Museum of Nature, Ottawa, Canada (R. Anderson)  
KSEM      University of Kansas, Lawrence, USA (A. Short)