



A new Brazilian species of *Loxandrus* LeConte, 1852, with description of immatures and notes on natural history (Coleoptera: Carabidae: Loxandriini)

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Abstract

Loxandrus oophagus sp. nov. is described (type-locality: Uberlândia, State of Minas Gerais, Brazil). Larvae, pupae and adults of the new species of the carabid beetle were collected on foam nests of the anuran *Leptodactylus fuscus* (Schneider, 1799) in the surroundings of Uberlândia, 18°55S, 48°17W (Brazil, Minas Gerais), at 750 m altitude. The new species is compared with the similar *Loxandrus quinarius* Will & Liebherr, 1997, only known from Santa Cruz, Bolivia, differing by the morphology of tarsomeres. Larvae prey on anuran eggs. Description of the immatures and the natural history of the species are provided. The larva differs from the known larvae of *Loxandrus* species mainly by being eruciform, glabrous and depigmented, its small head and legs, and the lack of stemmata and urogomphi, representing an unusual last instar type among the Carabidae.

Key words: anuran eggs, carabid beetle, egg ectoparasitoidism, *Leptodactylus fuscus*, nest foam

Introduction

Larvae, pupae and adults of a carabid beetle collected on different occasions from October 2004 to January 2010, by T. R. de Carvalho, K. G. Facure and A. A. Giaretta in anuran foam nests of *Leptodactylus fuscus* (Schneider, 1799) were sent to the senior author for identification. Larvae were said to be predators of anuran eggs.

Our studies of the adults' specimens showed that they are consistent with *Loxandrus* LeConte, 1852 and could be included in the Straneo's seventh group of the genus (1991), which comprises 15 described species. Worldwide *Loxandrus* includes about 230 recognized species with the majority in South America and others in Central America, North America and Australia (Will, 2008). The systematic position of the genus has been extensively discussed over the last 20 years; the genus was included in the Pterostichinae (as Pterostichini, Reichardt, 1977) but by now some authors place both tribes, Pterostichini and Loxandriini, within a larger concept of Harpalinae (Will *et al.*, 2000; Ober, 2002; Will, 2008).

Loxandriini beetles in the Neotropics are mostly wetland-inhabiting (Will, 2005). The natural history and immature stages of *Loxandrus* species and related taxa are very poorly known, so far only larvae of two species have been described (Will, 2008). We are describing the larva and the pupa herein since the larvae of the new species are quite different from the known larvae of *Loxandrus* and of other pterostichines (Bousquet, 1985).

Material and methods

The biological study of immatures and adults was conducted by T. R. de Carvalho at the “Clube Caça e Pesca Itororó” and on the local road-sides, both being in Uberlândia, State of Minas Gerais, Brazil. The insects were col-