



***Isospora ramphoceli* n. sp. (Apicomplexa: Eimeriidae) from the Brazilian tanager (Aves: Passeriformes: Thraupidae) *Ramphocelus bresilius dorsalis* Sclater, 1855**

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Abstract

In the current study, a new coccidian species (Protozoa: Apicomplexa: Eimeriidae) collected from the Brazilian tanager *Ramphocelus bresilius dorsalis* Sclater, 1855 is reported from Brazil. *Isospora ramphoceli* n. sp. has oocysts which are spherical to sub-spherical, $23.7 \times 22.8 \mu\text{m}$, with smooth, bilayered wall, $\sim 1.2 \mu\text{m}$ thick. Micropyle, oocyst residuum and polar granule are absent. Sporocysts are ellipsoidal or slightly ovoidal, $16.0 \times 11.4 \mu\text{m}$. Stieda body knob-like and prominent and substieda body large and homogeneous. Sporocyst residuum is composed of granules of different sizes. Sporozoites are vermiform with one refractile body and a nucleus. This is the sixth description of an isosporoid coccidium infecting *R. b. dorsalis* and the twelfth description from Thraupidae.

Key words: taxonomy, morphology, coccidia, *Isospora*, oocysts, Passeriformes, Thraupidae, Marambaia Island, Rio de Janeiro, Brazil

Introduction

The Brazilian tanager *Ramphocelus bresilius dorsalis* Sclater, 1855 is a thraupid bird resident in Brazil. Its natural habitats are subtropical or tropical moist lowland forests, subtropical or tropical dry shrub land, and heavily degraded former forest (Sick 1997; CBRO 2009).

Boughton *et al.* (1938) recovered *Isospora*-like oocysts from feces of four Andean tanagers: (1) the southern palm tanager, *Thraupis palmarum* Wied, 1821; (2) the magpie tanager, *Cissopis leveriana* Gmelin, 1788; (3) the southern silver-beaked tanager, *R. carbo* Pallas, 1764; and (4) the Brazilian tanager, *R. b. dorsalis*. All of these coccidia were obtained from captured birds in zoos, but none of them was described or named.

Recent studies have reported some isosporoid coccidia infecting *R. b. dorsalis*. Berto *et al.* (2008; 2009a) describe five *Isospora* species from birds of the Marambaia Island, in Southern Brazil. Another six species of *Isospora* were described from other birds of the Thraupidae, totalizing eleven species parasitic of this family (Lainson 1994; Templar *et al.* 2004; Metzelaars *et al.* 2005; Berto *et al.* 2009b).

The current study describes the sixth eimeriid species infecting Brazilian tanagers *R. b. dorsalis*, on Marambaia Island, Rio de Janeiro State, Brazil; and the twelfth description from Thraupidae.

Material and methods

Eleven Brazilian tanagers were captured using nets in Marambaia Island (23°04'S, 43°53'W). They were kept for 10–20 minutes in individual cages, and faeces were collected immediately after defecation. After