

Identification of *Isospora sabiai* (Apicomplexa: Eimeriidae) from thrushes *Turdus* spp. (Passeriformes: Turdidae) from southeastern Brazil

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The thrushes are cosmopolitan passerines of the Turdidae family, which has homogeneous characteristics, as evolved vocal repertoire and omnivorous eating habits. The Turdidae is one of the families of Passeriformes with many descriptions of coccidian parasites, mainly when are considered the flycatchers, robins and nightingales classified in the past as turdids. However, only six coccidian species are recorded from New World thrushes. The aim of this study was to examine the feces from thrushes *Turdus* spp. captured in southeastern Brazil to determine what coccidian parasites were present. A total of thirteen expeditions were conducted in three different localities in southeastern Brazil: (1) Marambaia Island, in the Municipality of Mangaratiba, State of the Rio de Janeiro; (2) Itatiaia National Park located in the Serra da Mantiqueira on the border of the States of Rio de Janeiro, Minas Gerais and São Paulo, and (3) Cacaria, in the Municipality of Piraí, State of the Rio de Janeiro. The birds were kept in individual boxes and feces collected immediately after defecation. After identification of the species, the bird was released and stool samples were placed in centrifuge tubes containing a K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> 2.5% solution at 1:6 (v/v). Samples were carried to the Laboratório de Biologia de Coccídios, UFRRJ, and were incubated at room temperature for 10 days. Oocysts were isolated by flotation in Sheather's sugar solution and examined microscopically. Morphological observations, line drawings, photomicrographs and measurements were made using an Olympus BX binocular microscope coupled to a digital camera Eurocam 5.0. Fifty-three *Turdus* spp. were captured and examined and 15 (28%) were positive for *Isospora sabiai* Pinho, Rodrigues, Silva, Lopes, Oliveira, Ferreira, Cardozo, Luz, Ferreira, Lopes, Berto, 2017. These 15 *Turdus* spp. positives were: 5 *Turdus albicollis* Vieillot, 1818; 4 *Turdus leucomelas* Vieillot, 1818; 3 *Turdus rufiventris* Vieillot, 1818; and 3 *Turdus flavipes* Vieillot, 1818. The *I. sabiai* oocysts were sub-spherical to ellipsoidal, 20.9 × 18.6 µm, with smooth, delicate, bilayered wall, ~1.1 µm thick. Micropyle inconspicuous or imperceptible. Oocyst residuum absent, but small polar granules rounded or comma-shaped present. Sporocysts elongate ellipsoidal to reniform, 16.5 × 9.2 µm. Stieda body knob-like. Sub-Stieda body rounded to conical, sometimes homogeneous with the Stieda body. Sporocyst residuum present, usually as a cluster of numerous granules. Sporozoites vermiform with 2 refractile bodies. Although *I. sabiai* have exhibited subtle morphometric differences associated with each host species, a single morphological pattern was observed in all oocysts. Thus, the identification of *I. sabiai* in several localities in southeastern Brazil and in different *Turdus* spp. emphasizes the wide

dispersion of this coccidian species and the success in the adaptation to different *Turdus* spp.

Keywords: Coccidia, oocysts, diagnostic, Taxonomy, Ecology, Parque Nacional do Itatiaia, Marambaia Island, Cacara