

Identification of *Isospora sagittulae* (Apicomplexa: Eimeriidae) from the white-shouldered fire-eye *Pyriglena leucoptera* (Passeriformes: Thamnophilidae) in the Itatiaia National Park, Brazil

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The Thamnophilidae family is comprised of small passerines often observed capturing ants and other arthropods in dense vegetation. The Atlantic Forest and the Amazon are the most important biomes where the thamnophilids are distributed. To date, 2 species of *Isospora* Schneider, 1881 were described from passerines of this family: *Isospora sagittulae* McQuiston, Capparella, 1992, which was originally described from *Hylophylax naevioides* (Lafresnaye, 1847) in Ecuador, and posteriorly from *Gymnopithys salvini* (Berlepsch, 1901) and *Willisornis poecilinotus* in the Brazilian Amazon; and *Isospora parnaitatiaiensis* Silva, Rodrigues, Lopes, Berto, Luz, Ferreira, Lopes, 2016, which was recently described from *Pyriglena leucoptera* (Vieillot, 1818) in the Itatiaia National Park, in Southeastern Brazil. In this context, the aim of this study was to examine the feces from *P. leucoptera* captured in the Itatiaia National Park in southeastern Brazil to determine what coccidian parasites were present. Five expeditions were conducted in the Itatiaia National Park. A total of 11 *P. leucoptera* were captured with mist nets. The birds were kept in individual boxes and feces collected immediately after defecation. After identification of the species, the bird was photographed and released and stool samples were placed in centrifuge tubes containing a potassium dichromate 2.5% solution at 1:6 (v/v). Field-collecting permits were issued to B.P. Berto (SISBIO/ICMBio: 49605-1; CEUA/UFRRJ/ICBS: 008/2015). Samples were carried to the Laboratório de Biologia de Coccídios, UFRRJ. Samples were incubated at room temperature for 10 days. Oocysts were isolated by flotation in Sheather's solution and examined microscopically. Morphological observations, photomicrographs and measurements were made using an optical microscope coupled to a digital camera. Eleven *P. leucoptera* were captured and examined and 6 of them were positive for *I. sagittulae*. Its oocysts are ovoidal to ellipsoidal,  $30.6 \times 24.0$  ( $29-33 \times 22-25$ )  $\mu\text{m}$ , with smooth, bilayered wall, length/width (L/W) ratio 1.3 (1.2-1.5)  $\mu\text{m}$ . Micropyle and oocyst residuum are absent, but 1-3 polar granules are present. Sporocyst are subspherical to ovoidal,  $15.8 \times 13.1$  ( $15-17 \times 12-14$ )  $\mu\text{m}$ . Stieda body thin and flattened and substieda body triangular to rounded. Sporocyst residuum is diffuse. Sporozoites are vermiform with one refractile body and a nucleus. The previous reports of *I. sagittulae* in Ecuador and Brazilian Amazon demonstrated the occurrence of this parasite in non-sympatric birds of the same family but from different genera that inhabit opposite sides of the Andes and of the Amazon River. In this sense, the current work reaffirm the wide geographic distribution of this coccidian species in South America, besides confirming the low specificity to a host genus, since *P. leucoptera* is here reported as the fourth host genus/species of *I. sagittulae*.

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