

Identification and density of coccidian parasites (Apicomplexa: Eimeriidae) of wild birds in a region of Atlantic Forest in southeastern Brazil

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Brazil is among the 5 most megadiverse countries in the world, presenting 14% of all biodiversity known worldwide. Brazil also has a greater tropical vegetation covering the world, presenting a large number of endemic species, making it one of the most important countries in the world for investment in bird conservation. The district of Cacaria in the municipality of Piraí, Rio de Janeiro, Brasil, has a large area of vegetation cover, but is impacted by local cattle breeding besides other anthropic actions. Birds may have a great diversity of parasites, as ectoparasites, helminths and coccidia. The coccidian parasites are the major cause of enteritis, behavioral and reproductive changes, in most species of birds. Coccidia studies are relevant both to animal health and to the knowledge of the biodiversity of these parasites. In this context, the aim of this study was to examine the feces from wild birds captured in fragments of Atlantic Forest in the district of Cacaria in southeastern Brazil to identify and quantify the coccidian parasites that were present. To date, 10 expeditions have been carried out on 3 fragments of Atlantic Forest in Cacaria. A total of 129 birds 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). 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 quantified by OPD (oocysts per fecal drop) conferring the densities. Morphological observations, photomicrographs and measurements were made using an optical microscope coupled to a digital camera. A total of 129 wild birds were captured and examined and 16 of them were positive for coccidian parasites. *Isospora* spp. were identified from *Turdus leucomelas* Vieillot, 1818, *Dacnis cayana* (Linnaeus, 1766), *Basileuterus culicivorus* (Deppe, 1830), *Schistochlamys ruficapillus* (Vieillot, 1817), *Leptopogon amaurocephalus* Tschudi, 1846, *Turdus amaurochalinus* Cabanis, 1850, *Conirostrum speciosum* (Temminck, 1824), *Haplospiza unicolor* Cabanis, 1851 and *Islerothraupis luctuosa* d'Orbigny & Lafresnaye, 1837. *Eimeria* spp. were identified in *Pyriglena leucoptera* (Vieillot, 1818). The highest densities were observed in *D. cayana*, *T. leucomelas*, *B. culicivorus*, *T. amaurochalinus* and *S. ruficapillus*, which had OPDs of 162, 157, 105, 87 and 43, respectively. The recovered and quantified oocysts are still in the process of specific identification, however these preliminary results demonstrate the diversity and distribution of these coccidia in this region of Atlantic Forest. In addition, the development of this study possibly will reveal new species and new hosts.

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