

Parasitological survey in wild birds kept for rehabilitation in Central Eastern Portugal

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Abstract

The study of parasites in the wild fauna may have several objectives, namely finding the most prevalent species, relate their presence with the feeding behaviour, assessing the ones that can be related with ecosystem changes as biological tags and diagnosing the most pathogenic harmful ones. Wildlife rehabilitation centers can be a helpful way of performing this kind of studies, since using faecal samples, most of the gastrointestinal parasite fauna can be assessed.

A parasitological survey was performed at CERAS, a Wildlife Rehabilitation Center located in Castelo Branco, Portugal, from January 2016 till May 2017. A total of 65 birds were examined, being 50 birds of prey (27 diurnal; 23 nocturnal) and 15 of other families. Fecal samples were collected in all birds, being performed flotation and natural sedimentation coprological methods. From 65 samples, 24 showed parasitic forms (36.9%), although only 16 (24.6%) showed patent infections, being the remaining 8 positive for mite eggs (12.3%) and 1 of them even showed a mouse nematode egg (*Aspicularis* sp.) (1.5%) considered as pseudoparasites. From the 50 birds of prey, 13 (26%) showed at least 1 oocyst and/or helminth egg. Regarding protozoans, 5 birds showed *Eimeria* spp. oocysts (10%) and concerning helminth eggs, only 1 had infection by Cestodes (2%), 6 by Trematode (12%) and 9 had nematode eggs (18%), being the most prevalent group of parasites, and the most biodiverse one (Anisakidae, *Syngamus* sp., *Tetrameres* sp. and *Capillaria* sp, being this last one the most prevalent, with 9 out of 9 positive for these helminths). Diurnal birds showed 9 positive in 27 (33.3%), while nocturnal showed 4 positive in 23 (17.4%). Concerning the other birds, 3 out of 15 (20%) were positive (1 corvid, 1 gull, 1 egret) with a less diverse parasite fauna (*Eimeria* spp., Trematoda, *Capillaria* spp.).

As preliminary conclusions, we can state that birds of prey are the most representative group kept in this animal facility, being also the group with higher parasitic prevalence and most biodiverse composition, particularly the diurnal species, probably due to a more diverse feeding behaviour of eagles, falcons and hawks compared with owls.

Key words: Wild birds; Rehabilitation Center; Gastrointestinal Parasites; Survey; central Portugal