

The coprological analysis of capercaillie (*Tetrao urogallus*) from aviary breeding centers

Klaudiusz Szczepaniak¹, Krzysztof Tomczuk¹, Maciej Grzybek¹, Roman Dziedzic²

¹Sub-Department of Parasitology and Invasive Diseases, Institute of Biological Bases of Animal Diseases, University of Life Sciences in Lublin, Akademicka 12, 20-950 Lublin, Poland

²Sub-Department of Animal Ecology and Wildlife, Department of Zoology, Animal Ecology and Wildlife, University of Life Sciences in Lublin, Akademicka 13, 20-950 Lublin, Poland

Corresponding Author: Klaudiusz Szczepaniak; e-mail: klaudiusz.szczepaniak@up.lublin.pl

Polish populations of capercaillie (*Tetrao urogallus*) have shown a rapid decline in the 20th century which caused this species to be included in the red list of strictly protected species. Reintroduction projects are underway in most European countries. The birds are mainly obtained from closed breeding centres. In Poland, two aviary breeding centers have been established in the Leżajsk and Wisła Forest Districts. The aviary breeding system can predispose birds to invasions of some parasites, especially those with a direct life cycle. The objective of the research was to determine the occurrence of endoparasites in capercaillie (*Tetrao urogallus*) from aviary breeding centers.

A total of 18 fresh fecal samples belonging to 18 different birds from six aviaries (Leżajsk Forest Districts) were analyzed using the flotation method with saturated sodium chloride and sucrose (specific Gravity 1.25 g/ml). To determine actual parasite burden, OPG (oocysts per gram of feces) and EPG (eggs per gram of feces) were calculated using the McMaster method with the Raynaud modification.

The overall prevalence of endoparasites was 44.4%. Only two parasite genera were found in the *Eimeria* and *Capillaria* samples. *Eimeria* oocysts were detected in six samples, and *Capillaria* oocysts in five. Three birds had a mixed invasion. Ten samples were negative. For *Capillaria* spp., the highest EPG was 200 and OPG 400.

Although the invasions of endoparasites in aviary breeding centers of capercaillie (*Tetrao urogallus*) in the Leżajsk Forest District do not represent a serious health problem, the high prevalence of parasites requires regular parasitological monitoring of this population.