

# Hight occurrence and diversity of intestinal parasites in two captive migratory duck species at Shengjin Lake, Anhui Province, China

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## Abstract

Intestinal parasites affect the health of birds and pose a risk of transmitting diseases. This study utilized fecal examination to assess the occurrence of intestinal parasites in two captive waterbird species, revealing a high infection rate and a diverse range of parasite groups. Nematodes were found to be the most common intestinal parasite species in two duck species, Common teal (*Anas crecca*) and Baikal teal (*Sibirionetta formosa*). A total of 96 fecal samples were collected and analyzed using the modified floating and sedimentary McMaster technique, revealing an overall infection rate of 78.13% (75/96), with 42.67% (35/72) being single infections and 57.33% (43/75) mixed infections. Nematodes were the most prevalent with an infection rate of 66.67% (64/96), followed by protozoa (34.48%), trematode (14.42%), and cestode (5.21%). Three nematode species were identified in both ducks, including *Cappillaria* spp., *Strongyloides* spp., and *Ascaris* spp. The mean egg per gram (EPG) of *Strongyloides* spp. was highest in Common teal while Baikal teal had a higher mean EPG of *Cappillaria* spp. Duck species, genders and seasons were observed as factors, result showed a significant difference in occurrence rate and mean OPG/EPG between males and females in both duck species, and a higher occurrence during the summer than in the autumn and winter seasons. The high occurrence of intestinal parasites in these two dabbling ducks, particularly nematode species, may reflect the health status of waterbirds in captive. The results are important for understanding the status of intestinal parasites and assessing the risk of epidemics.

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