CASE REPORT

First report of Plagiorhynchus spp. in the Mallard Duck (Anas platyrhynchos) in Van, Turkey

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Yeşilbaşlı Ördekte (Anas platyrhynchos) Plagiorhynchus spp.’nin Türkiye’de (Van) İlk Bildirimi

Abstract

A dead mallard duck (Anas platyrhynchos) was found in the Ercek district of Van province and was brought into Parasitology Department of Yuzuncu Yil University. After the necropsy, some acanthocephalans were found in the intestinal wall of the mallard duck. Acanthocephalans were identified as Plagiorhynchus spp. according to their morphological peculiarities. It is important because this case is the first report of this infection in a mallard duck in Turkey.

Keywords: Plagiorhynchus spp., mallard duck, Turkey
Anas platyrhynchos, the mallard duck, is a bird that belongs to the Anatinae subfamily and the waterfowl family Anatidae. It lives a wide range of habitat and climates, from Arctic tundra to subtropical regions (John 1981). In spite of several investigations on helminths in chickens and birds, very little has been done on investigating the importance of intestinal helminths in the ducks.

The common internal parasitic infections occur in birds include cestodes, nematodes and coccidians (Badparva et al. 2015). Currently, 23 species of the nominotypical subgenus of Plagiorhynchus Lühe, 1911 (Acanthocephala, Plagiorhynchidae) are considered valid (Amin 2013). Plagiorhynchus spp. infects the small intestine of birds and mammals. The parasites are transmitted by insects of frequently the genera Coleoptera or Orthoptera (Richardson and Nickol 2008).

Ever since, Plagiorhynchus spp. has been commonly identified in various bird species in different parts of the world including East Asia, North America, South Africa and Australia (Schmidt and Kunz 1966, Moore 1983, Amin et al. 1999, Smales 2003). In addition to these several birds, Plagiorhynchus spp. has also been recorded from the gut of predatory birds (Ferrer et al. 2004) and of avian scavengers, for example crows (Jones 1928, Smales 2003). The aim of this study was to report the mallard ducks Anas platyrhynchos as a new host for acanthocephala of the genus Plagiorhynchus in Turkey for the first time.

The Van province (38° 28’ N 43° 20’ E) is part of the Eastern Region of Turkey. The city is located around the Lake Van, the largest lake of Turkey. There are approximately 500 bird species so far recorded in Turkey (Sekercioglu 2006). Although approximately 500 bird species were recorded from Turkey, all of the acanthocephala fauna infected these birds are still unknown. Van Lake Basin lies along fly ways of many migratory birds and this closed basin is hosted 213 of the bird fauna found in Turkey (Ozdemir and Durmus 2009). A dead mallard duck (Anas platyrhynchos) was found in the Ercek district of Van province and was brought into Department of Parasitology of University of Yuzuncu Yil. After the necropsy, acanthocephalans were found in the intestinal wall of the mallard duck. The parasites were isolated by washing the intestines and passing the contents through a sieve. The collected parasites were kept in 70% ethanol with 5% glycerol. The acanthocephalans were examined with a light microscope to take morphological measurements and to determine sex. Plagiorhynchus spp. was identified according to literature.
present study contributes by describing a new host for Plagiorhynchus spp. More research is required to evaluate the possible damage caused by acanthocephalan infections and other helminth infections in birds.

References


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