

**Title: Intestinal system helminths of red foxes and molecular
characterization Taeniid cestodes**

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ABSTRACT

Red foxes (*Vulpes vulpes*) are the most prevalent wild carnivores in the world and definitive hosts of many pathogenic parasites for humans and farm animals. These animals travel great distances in search of prey and nests, and cause contamination of large geographic areas with parasites. For this reason, monitoring the parasitic pathogens of red foxes is particularly important in terms of public and animal health. The goal of this study was to determine the intestinal helminths and molecular characterization of *Taenia* species of red foxes in Turkey. In this study, 103 red fox intestines obtained from 29 provinces of Turkey were examined with sedimentation and counting technique. Collected helminths were diagnosed according to their morphologic features. Additionally, further molecular analysis (PCR and DNA sequencing) was performed for the identification of Taeniid cestodes. At the end of the study, it was determined that 87.37% (90/103) of red foxes were infected with at least one helminth species. Detected helminths and their prevalence's were *Mesocestoides* sp. (56.31%), *Joyeuxiella echinorhynchoides* (33%), *Taenia polyacantha* (15.53%), *Dipylidium caninum* (0.97%), *Pterygodermatites affinis* (51.45%), *Toxascaris leonina* (45.63%), *Uncinaria stenocephala* (33%), *Oxynema numicidum* (20.38%), *Toxocara canis* (14.56%), *Ancylostoma caninum* (12.62%), and *Trichuris vulpis* (1.94%), respectively. Additionally, *Pachysentis* sp. (37.69%), *Centrorhynchus* sp. (0.97%) (Acantocephala), and nymphs of *Linguatula serrata* (20.38%) (Arthropoda) were also detected in the same intestinal samples. This is the most comprehensive study that has been conducted on the intestinal helminthes of red foxes in Turkey. To the best of our knowledge, molecular characterization of *T. polyacantha* and the detection of *O. numicidum*, *A. caninum*, *Pachysentis* sp., and *Centrorhynchus* sp. are the first reports in red foxes in Turkey. Our study revealed that red foxes are important hosts for many intestinal helminth species and are link between domestic and sylvatic cycles of these parasites.

Derginin SCI-E olduğuna dair erken görüntüsü ve internet sitesi adresi:

<https://mjl.clarivate.com/search-results>

The screenshot shows the MJI search results page for 'parasitology research'. The page is titled 'Refine Your Search Results' and shows a search bar with the text 'parasitology research' and a 'Search' button. Below the search bar, it indicates 'Found 22,148 results (Page 1)' and a 'Share These Results' link. The main content area is titled 'Exact Match Found' and displays the journal 'PARASITOLOGY RESEARCH'. The publisher is 'SPRINGER, ONE NEW YORK PLAZA, SUITE 4600, NEW YORK, United States, NY, 10004'. The ISSN / eISSN is '0932-0113 / 1432-1955'. The Web of Science Core Collection is 'Science Citation Index Expanded'. Additional Web of Science Indexes are 'Biological Abstracts | BIOSIS Previews | Current Contents Life Sciences | Essential Science Indicators | Zoological Record'. There are links to 'Share This Journal' and 'View profile page'.

Derginin WoS'daki Quarter'ını gösteren kanıtlayıcı ekran görüntüsü ve site adresi:

<https://avesis.cumhuriyet.edu.tr/researcher/journal/search>

The screenshot shows the AVEsis journal search results page for 'PARASITOLOGY RESEARCH'. The page is titled 'Dergi Veritabanı' and shows a search bar with the text 'PARASITOLOGY RESEARCH' and a 'Ara' button. Below the search bar, it indicates '1 Kayıttan 1 - 1 Arası Kayıtlar'. The main content area is a table with the following columns: Dergi Adı, Issn, Yayınevi, Konular, WoS Quarter, Scopus Quarter, and Scimago Quarter. The table contains one row for 'PARASITOLOGY RESEARCH' with the following values: Issn: 0932-0113, 1432-1955; Yayınevi: Springer Verlag; Konular: BIOLOGY, HEALTH SCIENCES; WoS Quarter: Q2; Scopus Quarter: Q1; Scimago Quarter: Q1. There is a 'Detay' button next to the row.

Dergi Adı	Issn	Yayınevi	Konular	WoS Quarter	Scopus Quarter	Scimago Quarter
PARASITOLOGY RESEARCH	0932-0113, 1432-1955	Springer Verlag	BIOLOGY, HEALTH SCIENCES	Q2	Q1	Q1