



ГОДИНИ
МАКЕДОНСКО
ЕКОЛОШКО ДРУШТВО
YEARS
MACEDONIAN
ECOLOGICAL SOCIETY

**6th CONGRESS OF ECOLOGISTS
OF THE REPUBLIC OF NORTH MACEDONIA,
WITH INTERNATIONAL PARTICIPATION**

ABSTRACT BOOK

October 15th-18th 2022, Ohrid

Publisher:

Macedonian Ecological Society
Blvd. Boris Trajkovski, street 7, No 9A, 1000 Skopje,
North Macedonia

Citation:

Abstract book, 6th Congress of Ecologists of the Republic of North Macedonia,
with International Participation.
October 15th-18th 2022, Ohrid,
Macedonian Ecological Society, Skopje, 2022

Editor:

Metodija Velevski

Printed by:

Grafoden, Skopje

Printing run:

250 copies

CIP – Каталогизација во публикација

Национална и универзитетска библиотека "Св. Климент Охридски", Скопје

502/504(062)(048.3)

CONGRESS of ecologists of the Republic of Macedonia with international participation (6 ; 2022 ;
Ohrid)

Abstract book / 6th Congress of ecologists of the Republic of North Macedonia, with
international participation, October 15th-18th 2022, Ohrid ; [editor Metodija Velevski]. - Skopje :
Macedonian Ecological Society, 2022. - 236 стр. ; 25 см

Регистар

ISBN 978-9989-648-44-1

а) Екологија -- Собири -- Апстрактни

COBISS.MK-ID 58348293

Rodent helminth fauna of Special Nature Reserve Koviljski Rit on the territory of Vojvodina

Božana Tošić¹, Borislav Čabrilo¹, Milan Miljević², Sara Savić³, Tamaš Petrović³, Olivera Bjelić-Čabrilo¹

1 - University of Novi Sad, Faculty of Sciences, Department of Biology and Ecology, Trg Dositeja Obradovića 2, 21000 Novi Sad, Serbia

2 - Department of Genetic Research, Institute for Biological Research "Siniša Stanković" - National Institute of Republic of Serbia, University of Belgrade, Bulevar despota Stefana 142, 11000 Belgrade, Serbia

3 - Scientific Veterinary Institute "Novi Sad", Rumenački put 20, 21000 Novi Sad, Serbia

E-mail of the presenting author: bozana.tosic@dbe.uns.ac.rs

Special nature reserve Koviljski rit is one of the rare remaining floodplains within the Pannonian plain in Serbia, representing a mosaic of woodland, meadow, marsh and pond ecosystems that are tightly interconnected into a unique habitat characterised by high biodiversity, particularly among small rodents. Over the course of field research in this area carried out in 2019, seven rodent species were registered (*Apodemus agrarius*, *A. flavicollis*, *A. sylvaticus*, *Micromys minutus*, *Mus musculus*, *Microtus agrestis*, *M. arvalis*), and 47 individuals of these species were captured and subjected to helminthological examination. Ten nematode species (*Heligmosomoides polygyrus*, *Heterakis spumosa*, *Mastophorus muris*, *Strongyloides ratti*, *Syphacia agraria*, *S. frederici*, *S. montana*, *S. stroma*, *Trichuris muris*, *Calodium hepaticum*) and two tapeworm species (*Hymenolepis fraterna*, *Skrjabinotaenia lobata*) were found. Infection prevalence in the total host population was 85.1%. Of the individual nematode species, *H. polygyrus* was the most prevalent (57.4%), *S. stroma* had the highest mean infection intensity (116), and *S. agraria* had the highest mean abundance (25.8). From a zoonotic standpoint, the most significant species was *C. hepaticum*, which parasitises on the host liver. Its infection prevalence was 4.3% which does not indicate infection hotspots, but certainly requires increased attention and monitoring. Parasites are ubiquitous in the lives of wild animals and constitute a major component of biodiversity. More than 50% of known species on Earth are parasites or pathogens, and over 60% of human pathogens are of zoonotic origin. Helminths are the most prevalent group of macroscopic endoparasites, with helminthiases considered as a major issue in infective disease. Helminths, particularly gastrointestinal nematodes, can greatly influence human and animal health. In the context of global anthropogenic changes of natural ecosystems, studies of helminths of wild mammals in protected areas are of special interest, simply because the diversity of animals and their parasites is highly preserved in such areas due to their protection regimes. Rodent population control and studies of their helminth fauna in these areas is a primary means of control of the zoonoses they carry.

Key words: roundworms, tapeworms, protected areas, zoonoses