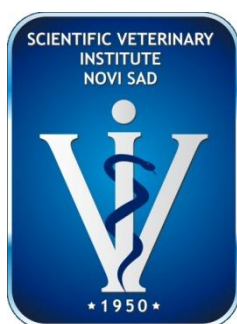


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INSTITUTE OF VETERINARY MEDICINE OF SERBIA

*„One Health – New Challenges“*  
**First International Symposium of  
Veterinary Medicine  
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# BOOK OF ABSTRACTS



**Hotel "Premier Aqua" - Vrdnik  
May 21 – 23, 2015**

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## ECTO- AND ENDOPARSITIC BURDEN OF APODEMUS MICE (RODENTIA: MURIDAE) AT HUNTING RESORT KAMARIŠTE (SERBIA)

Olivera Bjelić Čabrilović<sup>1</sup>, Aleksandra Petrović<sup>2\*</sup>, Aleksandar Jurišić<sup>2</sup>, Borislav Čabrilović<sup>1</sup>, Dina Tenji<sup>1</sup>, Ivana Ivnović<sup>2</sup>

<sup>1</sup> Department of Biology and Ecology, Faculty of Science, University of Novi Sad, Novi Sad, Serbia

<sup>2</sup> Department of Environmental and Plant Protection, Faculty of Agriculture, University of Novi Sad, Novi Sad, Serbia

\* Corresponding author: [petra@polj.uns.ac.rs](mailto:petra@polj.uns.ac.rs)

### Summary

Because of the wide ranges of activity, seasonal migrations and population size fluctuations, most rodent species represent a specific type of an "epidemiological bridge" which is responsible for the maintenance of high population density of ecto- and endoparasites within certain habitats, but more importantly, their spatial transfer beyond their boundaries. Three mice species of genus *Apodemus* were present at hunting resort Kamarište: *A. agrarius*, *A. flavicollis* and *A. sylvaticus*. Considering the confirmed role of mice as important reservoirs and vectors of zoonotic diseases, the aim of the study was to determine the qualitative and the quantitative diversity of ectoparasites and helminths. Six species from four genera of ixodid ticks were identified: *Ixodes ricinus*, *I. trianguliceps*, *Dermacentor marginatus*, *Haemaphysalis concinna*, *H. punctata* and *Rhipicephalus sanguineus* and two genera of fleas: *Nosopsyllus* and *Ctenophthalmus*. The highest prevalence was obtained for larval stages of *I. ricinus* found on *A. sylvaticus*, and the lowest for nymphs of *R. sanguineus* on *A. agrarius*. The highest value of the average infestation intensity index was obtained for larval stages of *D. marginatus* on *A. flavicollis*. Parasitological research of mice digestive systems confirmed the presence of eight helminth species: one fluke species: *Plagiorchis elegans*, two species of tapeworms: *Rodentolepis straminea* and *R. fraterna*, and five species of nematodes: *Heligmosomoides polygyrus*, *Syphacia stroma*, *S. agraria*, *S. frederici* i *Heterakis spumosa*. Six species of helminths were identified in *A. flavicollis*, with highest abundance of *S. stroma*, but the highest infestation of mice specimens was with *H. polygyrus*. *A. agrarius* hosted five helminth species, with the highest abundance of *S. agraria*, but the most frequent was *H. spumosa*. *A. sylvaticus* had the lowest endoparasitic burden with only two helminth species in one specimen, but more abundant was *S. stroma*. The richest helminths diversity was detected in *A. agrarius* digestive tract with Simson index (1-D) of 0.7. Furthermore, of all identified helminth species only *R. fraterna* has medical and veterinary importance, while other species are rodent typical.

**Keywords:** ticks, fleas, flukes, nematodes, tapeworms, *Apodemus*, Kamarište

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