

J. Prokopič, T. Genov: Distribution of helminths in micromammals (Insectivora and Rodentia) under different ecological and geographical conditions

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For a long time the authors of this treatise have been studying helminths of Insectivora and Rodentia in two different natural localities: in Czechoslovakia (southern Bohemia, near the village of Klee) and in Bulgaria (in the vicinity of the lake Srebarno, N. E. Bulgaria). A total of 5,851 specimens of animals represented by 26 species (9 Insectivora and 17 Rodentia) were examined. 118 helminth species (24 trematodes, 41 cestodes, 4 acanthocephala and 49 nematodes) were obtained from the animals examined. In the present volume the results of these large-scale investigations are summarized and an ecologo-geographical analysis of the specific composition of parasites found is given.

The basic part of the reviewed book consists of two chapters: a systematic survey of helminths (pp. 14—93) and peculiarities of the infection by helminths of the animal species examined (pp. 94—139). These chapters are prefaced with two small sections. The research materials and methods are described in the first section (p. 8—9), while in the second characteristics of the localities, where the investigations were carried out are presented (pp. 10—13). The last chapter of the volume contains discussions (pp. 140—141).

The chapter devoted to the systematic review of helminths deals with detailed data on each helminth species found, such as its hosts and the incidence of infection (extensiveness and intensity) relevant to each locality examined. It also contains literary data on its records in other localities in Czechoslovakia and Bulgaria as well as in adjoining countries. With most species the results of the ecological studies made by the authors and the corresponding information from the literature are presented. This chapter and the next one as well contains a great number of tables. This form of material presentation greatly facilitates its comprehension. However, the reviewer would like to make a few criticisms. Firstly, the title of the chapter "Systematical-faunistic survey of helminths of small mammals from various biogeocoenoses" does not seem to be quite to the point. In fact it deals only with a systematic survey of helminths. The next chapter is actually concerned with faunistic survey. Secondly, treatises of such type include in their systematic surveys, along with specific taxons, also taxons of a higher rank (families, orders). In this work

they are absent. Due to this fact it remains uncertain what system in relation to different helminth classes the authors adhered to, while analyzing the parasite species discussed.

The title of the next big chapter is: "Infection of the host with various helminth species under different ecological and geographical conditions." The data concerning the specific composition, i.e. helminth fauna of each species examined constitute its main subject. Consequently, it would be more correct, as we have already noted, to call this chapter faunistic. It deals with detailed data on helminths, recorded by authors in different host species of Insectivora and Rodentia. There are lists of helminths of each animal species examined with the data on taxonomy of small mammals from both localities as well as general data about incidence of infection. A comparative analysis of animal infection from different localities is presented with the attempt to elucidate the role of different ecological factors, determining the character of helminth fauna of animals concerned. The chapter contains many diagrams vividly illustrating the incidence of infection by helminth species met with in different hosts. In Insectivora the largest number of helminth species was found in *Sorex araneus* (38) species *Neomys anomalus* (24 species, 227 specimens and in Rodentia—in *Microtus arvalis* (31 species).

The final chapter of the volume, as we have already mentioned, is devoted to discussion. Unfortunately it is very short and there is not much general discussion of the comprehensive material presented in the book. Only general actual data on the results of micromammal research in each locality and the difference in qualitative and quantitative indices of the results in these localities are stated. A general conclusion of the authors is very important, but it points to the fact that helminths along with other organisms represent an important component of the biocoenoses and that the type of biocoenosis inhabited by hosts determines the peculiar features of specific composition of their parasites.

The main value of the book under review consists in the large factual material, being its subject-matter. Undoubtedly the treatise makes a considerable contribution to the knowledge on helminths of Insectivora and Rodentia, the most numerous representatives of mammals.

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