

E. V. Gvozdev: Ekologiya parazitov vodnykh zhivotnykh (Ecology of parasites of water animals)

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This study consists of separate reports dealing with ichthyoparasitological problems and ecology of parasites of water animals mainly under conditions of the Kazakh SSR. They were written by several authors and edited by Prof. E. V. Gvozdev from the Institute of Zoology of the Kazakh SSR Academy of Sciences in Alma-Ata. Besides the scientists from the Laboratory for the Research of Parasites of Birds and Fishes of this institute, also authors from other institutions co-operating with this laboratory took part in the preparation of this book. It is dedicated to the memory of the corresponding member of the USSR Academy of Sciences V. A. Dogiel, who founded a planned investigation of parasites of fishes and other animals in Kazakhstan. The introductory chapter by E. V. Gvozdev and A. I. Agapova presents a short survey of the history of the ichthyoparasitological research in Kazakhstan which was substantially influenced by the activities of Prof. Dogiel.

Following this chapter are 13 original reports which may be divided into four groups according to the treated subject. Most of them deal with ichthyoparasitology. Parasitological problems associated with the introduction and acclimatization of new fish species are discussed by O. N. Bauer (introduction of palaeoarctic parasites into the Nearctic region and vice versa), A. I. Agapova (the influence of fish introduction on the distribution of their parasites) and B. Akhmetova and G. S. Diarova (parasites and diseases of *Ctenopharyngodon idella* in Chimkent pond fish management). The importance of wild fishes in the epizootiology of some diseases of fishes of economic importance in Kazakhstan is dealt with in the paper by G. S. Diarova. A. I. Agapova analyses the biology of fish parasites in Kazakhstan (primarily their life-cycles and ways of infection of the definitive hosts). On the basis of this analysis the author attempts to classify the parasites according to the character of biocenotic conditions in the locality. D. Zhatkanbaeva presents the results of her studies of metacercariae and adults of *Diplostomum pusillum*. Further two papers concern parasitic protozoans of some fishes from

the Bukhtarmin dam water reservoir (E. V. Braghina) and the dynamics of parasite fauna of the main commercial fishes from Alakol Lakes (K. V. Smirnova and N. V. Kairova).

Of interest is the paper by O. V. Dobrokhotova on the distribution of Cyclopoida in the Kazakhstan water bodies and their role in the circulation of cercariae of fishes and birds. The data on the ecology and distribution of individual species of Copepoda are of great value even for those workers who are engaged in the study of other groups of parasites utilizing these crustaceans during their life-cycles.

Three papers concern snails as intermediate hosts of trematodes: infection of fresh-water snails with larvae of fish trematodes in Kazakhstan (Yu. V. Belyakova), biology of the snail *Bithynia leachii* and ecological factors influencing its infection with the larvae of *Opisthorchis felineus* (E. G. Sidorova and A. I. Shustova). T. N. Soboleva reports on the study of helminths parasitizing some species of amphibians and water reptilians in Kazakhstan.

The volume concludes with a list of 254 references concerning fish parasites in Kazakhstan and republics of Central Asia in the years 1966—1973.

In spite of a certain heterogeneity of the papers, some of which only partly concern the ecology of parasites, the edition of this book will be greeted as a valuable source of information not only on the life-cycles of helminths and ecological conditions influencing the parasite fauna of water vertebrates, but also on the distribution and ecology of their intermediate hosts. The results of a many-years' work of the Laboratory for the Research of Parasites of Fishes and Birds are of importance for the recognition of the factors responsible for the incidence of parasitic diseases of water vertebrates, mainly commercial fishes, and development of rational measures for their control.

The book should be particularly useful for parasitologists, zoologists, ichthyologists and veterinarians engaged in parasitology.

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