R. C. Anderson: Nematode Parasites of Vertebrates. Their Development and Transmission.

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Nematodes represent one of the most important groups of metazoan parasites of vertebrates. Some of them are known to be the agents of serious diseases of domestic and wild animals including fish, whilst others may represent an important public health problem. However, in addition to their practical importance, the nematodes also represent a significant model for the solution of a number of theoretical questions concerning host-parasite relationships, biology, ecology, zoogeography and phylogeny of these parasites and their hosts, as well as questions of general biology. The present knowledge of parasitic nematodes is still incomplete, particularly in regard to their biology and ecology. Although several monographs exist with detailed information on the development and transmission of medically important nematodes and some data concerning a few major groups can be found in several textbooks, no attempt has ever been made to summarize all contemporary knowledge of the main features of the development and transmission of parasitic nematodes of vertebrates and to relate this information to the latest concepts about systematics and relationships.

This much needed, comprehensive book has been written by Roy C. Anderson, Professor of Zoology at the University of Guelph, Ontario, Canada, an outstanding, internationally well-known and recognized Canadian nematologist and zoologist who has contributed greatly to our understanding of the systematics, transmission and epizootiology of many nematode parasite groups and one of the three co-editors of the widely used "CIH Keys to the Nematode Parasites of Vertebrates". As the author states, the volume is unique in its comprehensive coverage, and includes nematode parasites of humans, domestic animals and wildlife, including fish.

The relatively short introductory chapter deals with some general aspects of these nematode parasites, their systematic arrangement and distribution, development, and principles of transmission. It enables the reader to become familiar with the author's earlier hypothesis about the origin of nematode parasitism, as well as with some terms relating to nematode development and transmission some of which (e.g. "precocity") have recently been proposed by Prof. Anderson. This chapter is very useful and it is only a pity that, while discussing problems of nematode transmission, the author did not mention the so called postcyclic parasitism, a phenomenon playing an important role in the transmission, dissemination and dispersion of parasitic nematodes mainly in aquatic environments.

The following seven chapters deal with the individual orders of nematodes parasitizing vertebrates. The arrangement of orders, superfamilies, families and subfamilies almost follows the system used in the above mentioned "CIH Keys to the Nematode Parasites of Vertebrates". The author systematically describes the biological characteristics of the 27 superfamilies of nematodes, followed by families, subfamilies and, sometimes, genera. He attempts to include all the available data published on the biology of every nematode species parasitizing vertebrates and, in this way, 561 particular species have been reviewed and approximately 2 700 references have been cited. There are only a few papers dealing with the nematode species from vertebrates that have been omitted. Otherwise, the text is well written and well arranged; it is concise but very informative and clear. Some criticism may arise from the use, in sevaral cases, of scientific names for some species of nematodes or their hosts (e.g., *Camallanus fotedari* and *C. zacconis* are at present considered synonyms of *C. cotti*, *Camallanus adamsi* has been synonymized with *Neocamallanus ophiocephali*, and the rainbow trout is currently designated as *Oncorhynchus mykiss* instead of *Salmo gairdneri*). In addition, it is possible to say that besides *Anatrichosoma* and *Trichosomoides* listed in the Trichosomoidinae (p. 550), the genus *Huffmanela* comprising a few, mostly little-known species of histozoic parasites of fish belongs undoubtedly to the same group of trichosomoids.

Besides extensive data concerning the nematode development and transmission, the author has also established (p. 238) a new cucullanid species, *Truttaedacnitis pybusae*, parasitizing the lamprey *Lampetra lamotteni* in Canada, originally considered by Pybus et al. (1978) to be identical with the European species *Dacnitis stelmioides* Vessichelli, 1910 (the recognized synonym of *Cucullanus* (*Truttaedacnitis*) *truttae* Fabricius, 1794); the new species is distinguished from the latter on the basis of its biological characteristics.

The text is supplemented with many useful illustrations and an index of the Latin names for the nematode taxa.

This excellent book, in which the author utilized all his rich experience, represents one of the key works on nematology and parasitology which will be undoubtedly appreciated as an important source of information by parasitologists, as well as interested physicians, veterinarians, zoologists and wildlife and fisheries biologists. Both the author and the publisher are to be congratulated on this publication.

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