

F. Moravec: Nematodes of Freshwater Fishes of the Neotropical Region. *Academia, Praha, 1998, ISBN 80-200-0705-9, hard cover. 177 figs., 464 pp.*

After publishing a valuable book on the nematode parasites of freshwater fish in Europe, Dr. Moravec has now produced an equally valuable account of the nematodes of freshwater fish in the neotropic region, namely South and Central America and adjacent islands. The literature on the nematodes of fishes in the neotropics is widely scattered and Dr. Moravec brings it together nicely in this volume. In his introduction, he points out that significant ecosystems in the region are threatened by human activities and it is important to expand our knowledge of the fish fauna and their parasites.

Following the introduction is a chapter outlining the methods for examining fish, collecting nematodes and fixing and preserving them for subsequent microscopic study. This is followed by a chapter on the morphology and taxonomy of fish nematodes; the classification follows the CIH Keys. These two chapters will be useful for novices.

A third chapter covers the *Biology of Nematodes Maturing in Fish* and is a general account of reproduction and transmission through intermediate hosts of various types of nematodes. Factors involved in prevalence and intensity at the population level are discussed. A fourth related chapter covers the influence of the environment on the composition of the parasite fauna and its distribution. This is followed by a short chapter discussing the pathogenicity of nematodes in farmed, aquarium and wild populations of fish. There is, however, limited information on the effects of nematodes on fish in wild populations and much more study is required.

The remainder of the book (pp. 61-413) consists of a systematic account of the nematodes found in fish classified according to the CIH Keys. The author provides keys to superfamilies, families and genera as well as to species. The description of species are detailed and accompanied by excellent illustrations. Nematodes which mature in fish consist of 134 species (in 11 superfamilies), about double the number reported from Europe. The commonest genera are *Cucullanus*, *Camallanus* and *Procamallanus* but it is of special interest that 12 species of oxyuroids occur in nine genera. Pinworms have not been found outside tropical or subtropic regions of the world and the number of monotypic genera is striking. The book also lists and describes larvae found in fish which belong to adult nematodes of mammals, birds and predacious fish. These include *Dioctophyma renale*, *Eustrongylides* spp. and the usual ascaridoids (*Anisakis*, *Contracaecum*, *Hysterothylacium*) as well as gnathostomes and *Spiroxys*. An extensive host-parasite list is provided.

This is a well prepared book which will be useful for individuals interested in the broader zoological aspects of parasites of fish and indispensable for those concerned with fish diseases. The book is nicely illustrated and the material well-documented in an extensive bibliography. Dr. Moravec is to be congratulated for producing another valuable volume in his area of expertise.

R.C. Anderson