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978-0-521-03895-9 - The Physiology and Biochemistry of Cestodes

J. D. Smyth and D. P. McManus

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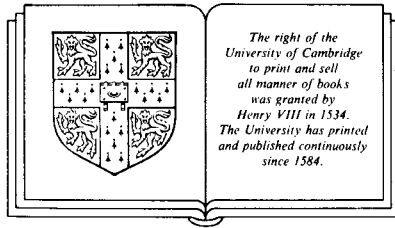
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Preface

The text of this book is based essentially on *The Physiology of Cestodes* (J. D. S. Smyth; W. H. Freeman/Oliver & Boyd, 1969) with an extended content and title to take into account the impact of biochemistry and molecular biology on the field. In addition, other new investigative techniques, such as transmission and scanning electron microscopy, cytochemistry, immunochemistry, population dynamics, immunobiology, and *in vitro* culture has greatly extended our understanding of cestode physiology and in this text we have attempted to review progress made up to 1986/87. Within the permissible space restrictions, it has not always been possible to quote work prior to 1970 and the reader is referred to the earlier volume for these data. Reference to early work of major fundamental importance, however, has been retained.

As well as being the causative organisms of a number of major human and animal diseases (e.g. cysticercosis, hydatidosis), cestodes serve as elegant experimental models for the study of fundamental biological phenomena. These include not only problems of specific parasitological interest, such as host-specificity, but also more basic problems such as enzyme dynamics, membrane transport and cell and tissue differentiation (especially asexual/sexual differentiation), common to many other biological fields.

An attempt has been made to give a representative worldwide coverage of the literature with major reviews being quoted where possible. Even with vigorous selection, the number of references has increased from 492 in the earlier volume to nearly 1000 in this version. Where appropriate, reference to papers in the less well-known foreign languages are supplemented with the relevant *Helminthological Abstract* number so that readers can readily consult an abstract in English. The number of figures has been increased by some 50 new diagrams or photographs and there are 71 tables, most of them new.

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Preface to the second edition

One of us (D. P. Mc.) was responsible for Chapters 4, 5 and 6, and the other (J. D. S.) for the remaining chapters. Both of us were previously on the staff of the Department of Pure and Applied Biology, Imperial College, University of London, where much of our work reported here was carried out.

J. D. Smyth
D. P. McManus
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