

BOOK REVIEWS

M. SHAMIM JAIRAJPURI and WASIM AHMAD : « Dorylaimida — Free-living, Predaceous and Plant-parasitic Nematodes », 1992, 458 + xii pp. E. J. Brill, Leiden. ISBN 9004092293.

Nematodes are the most abundant multicellular animals on earth, preying or parasitising on virtually every life-form, and saturating sediments and soils in numbers that dwarf those of all other invertebrates taken together. They are also extremely diverse, their number of species probably being second only to that of the insects.

Unlike the zoological subdiscipline of entomology, however, nematology has known little more than a century of substantial growth to reach its current state. In many respects it is still in its infancy, especially where the ecology and physiology of these organisms is concerned. With the notable exception of research on the laboratory model organism *Caenorhabditis elegans*, most progress in nematology has been made in the taxonomical field, in the shape of an explosive growth of the number of species and higher taxa being discovered and described. In consequence, specialists found it more and more difficult to survey this taxonomical « oilspill », and it became less and less easy for the non-initiated to enter into the field. It is therefore extremely fortunate that several works dealing with different orders of soil nematodes have appeared in recent years.

The new book by Dr. JAIRAJPURI and Dr. AHMAD now tackles the largest and probably least accessible of these : the Order Dorylaimida. This group consists of nematodes which feed with a protrusible needle-like tooth, along or through which nutrients are sucked up. In the microscopic universe of interstitial soil space, this mode of feeding clearly opened up a bonanza of niches and foodsources, for dorylaims have developed into a stunning array of forms and taxa. As a result, a presentation of the current taxonomical knowledge of Dorylaimida is no easy task, and the authors clearly chose to direct their effort towards the compilation of a factual and concise book.

After an introductory preface, the first chapter of « Dorylaimida » deals with the morphology of these animals, providing an outline of the structure, diversity and taxonomic importance of the various organs. Next is a chapter summarising the history of dorylaim classification above superfamily level, presenting a key to the superfamilies, and listing the classification adhered to in the book. The following eight chapters each deal with one of the dorylaimid superfamilies recognised by the authors, and the final chapter gives information on the order Triplonchida, an aberrant group that is considered related to, but distinct from Dorylaimida. The book ends with nineteen pages of references, and an index to the taxa mentioned.

The chapters on the dorylaimid superfamilies and on Triplonchida form the main body of the book, each starting with an outline of the history of the taxon in question, and then presenting keys and diagnoses to the families, subfamilies and genera within it. For each genus the authors also give a list of species, references to available keys, and illustrations of at least one species.

Undeniably, there are some flaws in this book. Thus, it contains more than its due share of printing errors, and even several cases of consistently erroneous spelling. The genus *Takamangai* is always referred to as *Takamangi*, for instance, and the name of J. G. DE MAN, one of nematology's pioneers, is written with capital «D» throughout, giving further life to an old and persistent error.

More importantly, where matters of contents and scope are concerned, the succinct style of the book has resulted in the unfortunate omission of various interesting facts and topics. It is said, for instance, that dorylaims have four juvenile stages during development, just like other nematodes, while in fact some members of the family Longidoridae go through one stage less. In general, hardly any attention is given to the small but interesting body of knowledge available on the ecology, physiology and culture of dorylaims. This results in a text that somewhat fails to draw attention to the living processes of these animals as active organisms, and one feels that an opportunity was missed to provide a source book for other research areas than the purely taxonomical.

Nevertheless, «Dorylaimida» will clearly be the major reference work to these animals for many years to come, and it is to be hoped that it will provide a strong impulse to further research by specialists and non-specialists alike. For identification, the dichotomous keys in the book are more than adequate, but it proves to be a particularly powerful tool in combination with DORY, the computerised key to Dorylaimida of ZULLINI and MANGANELLI (1989), where the flexibility of character input of the program perfectly complements the illustrations, diagnoses, species lists and references provided by the book. And as for research aimed at further investigation of the complicated relationships between dorylaims, there can be no better starting point than a publication like this one, compiling and ordering the unwieldy amount of current literature on the taxonomy of Dorylaimida into a single, easily accessible volume.

ZULLINI, A. and G. MANGANELLI (1989) — «A new computer program for nematode identification». *CABIOS*, 5 : 243-244.

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