

Book Reviews

O. I. Belogurov & L. S. Belogurova. «Free-living nematodes of the family Oncholaimidae. (Morphology, phylogeny, system and key for genera of the World Fauna)». Academy of Sciences of the USSR (Far East Division), Vladivostok, 1988, 100 pp.

O. I. Belogurov & L. S. Belogurova. «Free-living marine nematodes of the suborder Oncholaimina from seas of Russia and neighbouring waters (A key for identification)». Russian Academy of Sciences (Far East Division), Vladivostok, 1992, 222 pp.

The husband and wife team Professor O. I. Belogurov and Dr. L. S. Belogurova are renowned Russian nematologists who have published extensively on the morphology and taxonomy of marine free-living nematodes, especially on the Oncholaimidae and related groups. These authors have produced two books which present a review of their contributions to their science and also contain much previously unpublished data. In book one, «Free-living nematodes of the family Oncholaimidae. (Morphology, phylogeny, system and key for genera of the World Fauna)», the authors provide chapters giving comprehensive descriptions of nematode form and function, comparative anatomy, morphology, taxonomy and systematics. They also give diagnoses of nematode genera and keys for their identification. In book two, «Free-living marine nematodes of the suborder Oncholaimina from seas of Russia and neighbouring waters (A key for identification)», the authors provide a summary of marine free-living nematode morphology followed by comprehensive diagnoses of the Oncholaimina families (Pelagonematidae De Coninck, 1965, Oncholaimidae Filipjev, 1916 and Enchelidiidae Filipjev, 1918),

diagnoses of all subtaxa, identification key and descriptions of 105 species recovered from the seas of the former USSR and adjacent areas. These two books should best be read together as collectively they represent an authoritative account of marine free-living nematodes occurring in the seas and around the former USSR.

The anatomical description contained in book one provides a comparative treatise of nematode body shape and size, integuments and its derivatives, body wall and movement, body cavity, nervous system and sensillae, alimentary tract and constituents, excretory system and coelomocytes, spinnerette and the reproductive system. The data for this section were partly obtained from published ultrastructural studies. But the authors themselves are expert in light microscopy. Numerous new terms are introduced by the authors to describe many facets of these structures e.g. endocupola, marginal lamella, hexamenoid, mesosphaen, pro-, meso-, and basorhabdions (cephalic end), retentor, homeangoid (tail). The authors discuss the form and function of these structures, including their development (transformation), evolution and likely origin. The application of these structures as discriminative characters for taxonomy is also reviewed. However, the reader should be aware that many of these structures are small or indistinct and were observed only as a consequence of the authors being highly skilled light microscopists. The occurrence of several of these structures requires to be verified, probably with the application of SEM or TEM techniques.

The chapters on morphology also contain numerous theoretical considerations on the evolution of the nematodes and their constituent parts. Such opinions will undoubtedly give rise to controversy but nevertheless provide a sound basis for debate and much further study and interpretation. The chapters on systematics, which include detailed descriptions, may also provoke debate. There are several instances where there appears to be a superabundance of

intermediate taxa i.e. subfamilies, tribes, subtribes, which is especially noticeable in the Oncholaimidae. The use of cladograms to display the relationships between genera would have been helpful as a system should be as simple and pragmatic as possible. However, these chapters do provide a very useful basis for examining the systematics of these nematodes.

Unfortunately, the book have been prepared for Russian nematologists and do not contain English summaries or even English legends for many excellent drawings and diagrams. The skill of the Belogurovs in illustrating the complexity of nematode anatomy with

clarity yet omitting none of the fine detail is a credit to their expertise, knowledge and understanding of nematode structure.

Both books, collectively, represent a very useful and comprehensive treatise on marine free-living nematodes and provide an invaluable reference for many nematologists and taxonomists.

These book also provide a fitting tribute an memorial to Professor Oleg Ivanovich Belogurov who sadly passes away peacefully on 31th December, aged 53.

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