

S. O. Movsesyan: Tsestody fauny SSSR i sopredelnykh territoriy (Davaineaty). (Tapeworms of the fauna of the U.S.S.R. and adjacent territories (Davaineata.)) Publ. House Nauka, Moskva 1977, 272 pp., 85 Figs. Price 2.70 R.

This monograph is another volume of a series summarizing the data on cestodes of vertebrates of the U.S.S.R. and adjacent countries. The author followed a long tradition of the Soviet helminthological school and prepared an excellent book of great value for the scientific work and practical use. The cestodes of the suborder Davaineata Skrjabin, 1940 are of great practical importance as they parasitize 359 species of birds belonging to 23 orders (particularly Colymbiformes, Galliformes, Otidiformes and Anseriformes) and 42 mammals of 7 orders (particularly Lagomorpha, Rodentia, Carnivora and Primates). The studies were based on the material deposited with the Central Helminthological Museum, K. I. Skryabin All-Union Institute of Helminthology (VIGIS) in Moscow and a rich material deposited with the Institute of Zoology of the Azerbaijdzhan Academy of Sciences and Kazakh Academy of Sciences.

The book is divided into general and special part. Already the general part suggests the author's wide knowledge of the Soviet and world literature. He applied his experience in cestode investigations and compared his results with those of other Soviet (Skryabin, Matevosyan, Spassky, Spasskaya) and foreign (Fuhrmann, Baer, Mola, López-Neyra) authors. He wrote comprehensive chapters on the morphology, biology and geographic distribution of cestodes of the suborder Davaineata. The chapter dealing with phylogenetic relationships of genera and families of these cestodes is particularly significant. There are many critical comments to the validity of some characters recognized by previous authors and the taxonomic importance of these characters in determining, e.g., species, genus, subfamily and family. This concerns among others the number and morphology of hooks, type of excretory system and reproductive system including shape of eggs, and type of uterus. The author concludes that a specific character separating cestodes of the suborder Davaineata from other suborders of Cyclophyllidea is the shape of rostellar hooks, which is quite special and typical. Having analyzed individual characters he assumes that the phylogenetically oldest cestodes of the suborder Davaineata are those of the family Davaineidae.

The process of polymerization in the evolution of the Davaineata is evidenced by increasing number of rostellar hooks, appearance of chitinous spines on the suckers, differentiation and increasing number of excretory canals and increasing number of testes. The process of oligomerization is indicated by the compactness of

vitellarium and vitelline gland. The author compiled numerous important data on the life cycles of these cestodes and pointed out a gap in the knowledge of this subject, since the life cycle has been studied only with 14 of the 340 known species. In his opinion particularly the questions of embryonal development require a further investigation.

A deep analysis of his own material, as well as a good knowledge of the world literature, enabled the author to make several amendments of the present system of Davaineata. He described many taxons new for the science: one family—Ophryocotylidae, one subfamily—Cotugniinae, six genera—*Fuhrmannetta*, *Paroniella*, *Pentacoronaria*, *Raillietina*, *Skrjabinia*, *Paradiogenes*, and ten subgenera. Some of the genera previously placed in the family Davaineidae, as *Baerfainia* Yamaguti, 1959 and *Ascometra* Cholodkowsky, 1912, were transferred by the author to Hymenolepididae and Paruterinidae. He elevated to the rank of species many subspecies or varieties and recognized the validity of 340 species, 25 genera and 3 families of the suborder Davaineata. Seventy species parasitize birds and mammals in the U.S.S.R. and he studied 50 of them using an original material. The author submitted to the scientific public an original system qualitatively different from that known till the present time.

The systematic part contains illustrations of individual species and keys to families, genera and species are also added. The volume is completed by a list of all known species of cestodes of the suborder Davaineata registered in the U.S.S.R. (with localities and hosts), list of cestode species parasitic in the respective hosts, list of intermediate hosts, 532 literary citations and list of cestode species and their synonyms.

The book was carefully edited by K. M. Ryzhikov and E. M. Matevosyan. It is a valuable contribution to the world helminthological literature. The author is an experienced scientist, with many-sided scientific erudition. His book is not a mere interpretation of facts, but it presents many original ideas and stimulating problems showing further possible directions of the research of cestodes with a special regard to systematical zoology and applied parasitology. It is therefore recommended not only to the scientists but also to university teachers and students and particularly to specialists in human and veterinary medicine.

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