

MUHAMMED A. N., The status and control of ticks and tick-borne diseases of cattle in Nigeria. Paper presented to the National Workshop on the Control of Arthropod Vectors of Diseases in Nigeria, Enugu, 16th-20th July, 1979.

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**Yu. S. Balashov (Ed.): Atlas elektronno-mikroskopicheskoy anatomii iksodovykh kleshchey (An atlas of electron microscopic anatomy of ixodid ticks). Publ. House Nauka Leningrad 1979, 256 pp., 415 Figs. Price 2.30 R.**

Transmission electron and scanning electron microscopes are used in parasitology with ever increasing frequency as evidenced by the present publication. Yu. S. Balashov, the leading world specialist in the studies on fine external and internal structures in the family Ixodidae, compiled in it the results obtained by himself and a collective of authors under his guidance during long-term studies on external morphology and ultrastructure of different internal organs in the model tick species *Hyalomma asiaticum* Schulze et Schlottke. However, the data obtained may be also applied to other tick species.

Following a brief introduction containing a survey of methods used, there are 9 chapters entitled: External morphology, Teguments, Intestine, Salivary glands, Excretory organs, Internal tissues, Central nervous system, Sense organs, Genital system. The subject matter is arranged so that the structure and function of relevant organ are described in a concise text and simultaneously documented by illustrations. The figures take up 175 pages, constituting the

major part of the book. They are composed of photomicrographs taken in the scanning microscope (the first 78 Figs.) and in the transmission electron microscope (the remaining photographs) of very good quality on one hand and of very instructive diagrams depicting most diverse microstructures on the other. The reader thus can have a clear view of the finest structure of different tick organs. In the list of references 182 papers used are cited.

This is an excellent publication, the first of its kind in the world literature, noteworthy above all by the fact that the data are presented with all developmental stages of the species studied, both in the unfed and engorged state. The book will surely find a positive response among ixodologists, but among other specialists as well who are concerned with the study of ultrastructures of arthropods. The authors are to be sincerely congratulated for having produced this valuable publication.

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