Diseases in Free-Living Wild Animals.

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BOOK REVIEW

Diseases in Free-Living Wild Animals. A. McDiarmid (ed.) 1969, Academic Press, New York. 332 pp.

This book consists of a collection of papers presented at a symposium held at the Zoological Society of London in the spring of 1968. All of the contributors are specialists in the fields of study discussed and much new information is included in their presentations.

This book is divided into five sections dealing with viruses, bacteria, protozoa, metozoa and fungi, and neoplasms. In general, the value of the book is limited by its coverage of only a few specific diseases and often their impact on wildlife is considered in only a limited geographical area. The virology section deals only with Foot-and-Mouth disease as a specific disease and a general discussion of the epizootiology of Arboviruses. The two chapters on Red Squirrel Disease and Ulcerative Dermal Necrosis of Salmonids in Ireland are complete in their descriptions of the pathogenesis but are otherwise largely speculative. This is not a criticism of the authors, since little is known of the etiology of these two conditions.

The bacteriology section covers salmonellosis, leptospirosis, brucellosis, pseudotuberculosis, and mycobacterial infections. The student of wildlife disease can get much useful information from this section, even though some chapters cover only limited geographic areas and a small number of host species. The lack of any mention of *Salmonella* sp. in waterfowl is a rather serious omission in that these highly mobile birds could play an important role in the dissemination of the organisms. Each of the chapters in this section covers the topics adequately, from transmission to pathogenesis.

The protozoa section contains two chapters on trypanosomes, certain piroplasms, and blood protozoa of free-living birds. The first chapter on trypanosomes contains discussions of interaction of wildlife carriers with man and his domestic animals. The role of healthy carriers in the normal transmission cycle and the role of the accidentally infected host in which severe disease results are considered. The significance of anterior and posterior station infections is presented in terms of their role in the epizootiology of the diseases which result from each. The chapter on trypanosomes in the Serengeti National Park is excellent and should serve as a useful reference for students.

The most important consideration in the chapter on piroplasms of wild mammals is that although they are extremely common and not host specific, yet virtually nothing is known of their biology. This chapter covers the existing knowledge on piroplasms of several African animals. *Theileria, Theileria*-like organisms, *Cytauxzoon, Echinozoon,* and *Nuttallia* are discussed in terms of their prevalence, host specificity and usefulness as laboratory models for further study. The authors suggest that protozoologists pay more attention to acarologists who could provide much useful information for further work on this group of organisms.

The chapter on blood protozoa of birds includes consideration of the entire range of protozoa described from wild birds. Incidence, transmission, and seasonal variations are covered with methods for more accurately assessing the parasite burden of birds surveyed in the field. When known, the effect of each organism on its host and the immune factors controlling survival and the production of latent infections were discussed.

Ectoparasites of British wild rodents and the interaction of these parasites with laboratory rodents are covered in detail.

The discussion of helminth infections in wild ruminants is well done. The high potential for cross-transmission is stated along with geographic location as a factor in the epidemiology of domestic vs. wild host infections. The observation that wild ruminants usually suffer more severely from helminth infections than do their

domestic counterparts is brought out; also that domestic ruminants constitute the important reservoirs, with the exception of hydatidosis. The author concludes that wild ruminants are not an important source of infection for domestic stock. One rather important omission is discussion of the importance of *Elaeophora schneideri* in wild ruminants of North America. This parasite recently has been shown to cause debilitating infections in elk.

Mycotic infections are discussed as two groups — the superficial or dermatophytes, which are considered contagious, and the systemic, which are non-contagious.

Neoplasms of wildlife observed in Britain are discussed in terms of their frequency in free-living and captive birds and mammals. The need for a better reporting system is emphasized, since much valuable data already has been lost.

The chapter on myxomatosis serves as an excellent model of what happens when a pathogen is introduced into a highly susceptible population. Natural attenuation of the original strain is described and a comparison is made between the rates of attenuation in Australia and in Britain. The role of the mosquito vs. the flea in the attenuation process is brought out, along with the development of genetic resistance in hosts in certain isolated areas of Australia.

The overall value of this book depends on the specific needs of the reader. It offers highly specific information on some subjects and broad generalizations on others. The book is a worthwhile contribution in the field of wildlife disease, but its incompleteness points up the need for a highly organized and up to date source, covering all aspects of diseases of free-living animals.

RICHARD M. KOCAN

WDA Council Nominations

The WDA nomination committee which consisted of Drs. R. M. Robinson (chairman), K. Todd, and G. Hoffman has submitted its nominees for 1970. The only position up for election is that of council members-at-large. The candidates recommended were: William G. Winkler and Wilbur L. Bullock. Both have agreed to nomination.

A short biographical sketch of each candidate is enclosed for inclusion in the Bulletin prior to election. This information could be distributed in the January issue of the Bulletin, which would provide time for individual consideration and the possible submission of other candidates' names to the Secretary for inclusion on the ballot.

D. O. Trainer
President.

Curriculum Vitae

— Wilbur L. Bullock

Academic Training:		Professional Experience:
Queens College	B.S. 1942	University of New Hampshire: Instructor to Professor, 1948 to present. Acting chairman, Zoology Dept. 1952, 1958-59.
University of Illinois	M.S. 1947	
University of Illinois	Ph.D. 1948	