

BOOK REVIEWS

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Book Review

INFECTIOUS AND PARASITIC DISEASES OF WILD BIRDS

John W. Davis, Roy C. Anderson, Lars Karstad, and Daniel O. Trainer, editors. 1971. lowa State University Press, Ames, Iowa. 344 pp. \$12.50.

Almost every one who has become interested in the field of wildlife diseases has at one time or another kept a checklist of the species of wild birds that have been reported to have various diseases or parasites. After a few months, the list almost inavriably winds up in the wastebasket as one begins to realize how numerous these reports are and how widely scattered in the literature. Those who have been forced to undertake the task of organizing and presenting a course in "Wildlife Diseases" as part of a university curriculum have found that the task of summarizing this widely dispersed literature is a staggering chore.

This book, one of three on diseases of wildlife, is an attempt to provide a primer on the diseases of wild birds. It is a book that can serve as the basic textbook for the "Wildlife Diseases" course and provide an overall view of the field (and hopefully replace those scribbled checklists!)

Twenty-eight authors have contributed one or more chapters to the book. As with such joint authorship projects, there is considerable variation both in depth of discussion and in the merit of the work. However, the book is a notable first attempt to pull together research papers and notes tucked away in a hundred different journals and to provide a preliminary, although somewhat rickety, platform on which to begin.

This book will prove a valuable reference to the beginning student of wildlife disease, and a primer for the wildlife manager who is assigned to the management of habitat for large flocks of waterfowl: it should become a standard textbook for all courses in "Wildlife Diseases," both in the wildlife curricula and in schools of veterinary medicine. It should stand as a companion volume to Biester and Schwarte's "Diseases of Poultry" in all state poultry diagnostic laboratories and in the offices of those veterinarians who are engaged in commercial poultry practice or who are responsible for the regulatory aspects of poultry diseases.

Now that I have urged all to obtain this book, I must, in good conscience, offer my criticisms and suggest some corrections that might be made before the second edition appears.

Karstad (Chapter 4, Pox) provides a good review of this viral disease, but I think he fails to impress upon the reader just how common this disease is in many species of birds. The mourning dove, which is a major game bird species in southern and western United States is very frequently infected, and the disease has been rported from doves over a wide geographical range. Pox lesions are most frequently seen on the head of the dove, and, contrary to the table on page 39, cephalic lesions are commonly seen in mcckingbirds in Maryland and Florida.

Rosen (Chapter 8, Avian Cholera) gives a list of the species of wild birds reported as infected with *Pasteurella multocida* and refers to Rosen, 1967. Unfortunately, Rosen, 1967, is not in the list of references cited, pp. 71-74. Rosen, 1969, which is cited, does not include all of these records and so the error is not simply a typographical one. If this chapter is, as I believe, the first publication of these records, it would have made it easier for the reader if they had been listed in the references as Rosen, 1967, unpublished data, etc.

Rosen (page 61) states that only two enzootic areas of pasteurellosis in waterfowl exist in the world — Muleshoe National Wildlife Refuge, Texas, and north central California. The repeated outbreaks of avian cholera in nesting common eiders on St. Lawrence Bay in 1964 and 1966 (Reed and Cousineau, 1967. Naturaliste Can. 94: 327) and along the coast of Maine in 1963 and 1970 suggest that this region may be another enzootic area.

In chapter 16, Aspergillosis, O'Meara and Witter report the occurrence of the disease in a common crow, Corvus cryptoleucus. According to my bird books, the proper name for the common crow is Corvus brachyrhynchos; Corvus cryptoleucus is the white-necked raven of southern New Mexico and west Texas.

The problem of Lankesterella is discussed in three chapters where it would have been better to confine the discussion to one. The chapter by Box attempts to clarify some of the current confusion between Lankesterlla and Toxoplasma, but the subsequent chapter by Sanger (Toxoplasm) simply confuses the issue again.

Garnham and others have pointed out the differences between avian and mammalian *Toxoplasma*, and most of the references cited by Sanger as reporting avian Toxoplasmoses were published before this distinction was recognized. If the editors had exercised tighter review on these chapters, it would have helped make the material less confusing to the student. It is confusing enough to those supposed to be knowledgeable.

Sanger's chapter on neoplastic diseases in wild birds is too perfunctory. Although neoplastic disease is common in birds maintained in zoological gardens, it is rather rare in wild birds — perhaps largely because most wild birds do not live long enough for the disease to manifest itself. However, cases do occur and some of these records should have been mentioned by Sanger. As it is written now, the chapter is a brief discussion of tumors in parakeets, a group of birds not common in the wild in North America.

The final chapter by Hartung is a review of the field of toxicology and a general discussion of the effects of various poisons upon wild birds. Hartung's statement that "Hunt's extensive band returns were unable to demonstrate a significant reduction in longevity after the ingestion of lead" is directly opposed to observations reported by Bellrose (III. Nat. Hist. Survey Bull. 27 (3): 286+) who estimated that in the Mississippi Flyway 4 percent of the mallards die of lead poisoning. The reviewer believes that Hartung should have referred to Bellrose's work as well as Hunt's.

Hartung could have emphasized the diagnostic significance of brain residue levels of the organochlorine pesticides. Work done at the Patuxent Wildlife Research Center has shown that the brain residue levels of DDT, DDE, and dieldrin are the levels one needs in order to clearly establish that one of these chemicals has in fact been responsible for a bird's death.

On balance, the book is an excellent first attempt. The chapters on avian cholera, botulism, duck plague, pseudotuberulosis, chlamydiosis, parasitic nematodes, and coccidia are excellent and provide thorough reviews of their subjects. The chapters on tuberculosis, listeriosis, trichomoniasis, and leucocytozoon infection are excellent concise discussions which are well suited to acquaint the novice with the scope of these diseases among wild bird populations.

All in all, this book is a valuable addition to the library of wildlife biologists and laboratory diagnosticians as well as to the student of wildlife diseases.

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Book Review

"INFECTIOUS DISEASES OF WILD MAMMALS"

edited by John W. Davis, Lars H. Karstad and Daniel O. Trainer, Iowa State Press, Ames, Iowa, Copyright 1970, 421 pages.

This is the first serious attempt that I am aware of to catalogue in one volume the diseases of importance in our wild mammal populations. The book is well done; the editors are to be commended for having solicited, from various authors, a number of articles and then enforced a style that is well carried out throughout the volume. In general, all of the chapters are good. Some are unusually good detailed reviews with complete bibliographies. It is interesting that a great many diseases discussed are of either public health importance or importance to our domestic animals. Indeed, my only criticism of the volume is that there are too many descriptions that refer primarily to the disease as it exists in domestic animals. This is not a fault of the authors nor the editors but simply points up the need for further investigation of these diseases in our wild animal species. There are errors; in a few areas current nomenclature for etiological agents is not used, but with the time required for writing, editing, and publication, it is extremely difficult to maintain current nomenclature.

Several chapters deserve particular mention. The first section is on "Viral Diseases," and the first chapter is on rabies, a disease of great importance to public health, domestic animals, and wildlife. Dr. Sikes is a recognized authority in the field and has done a commendable job in presenting the total picture of rabies as it exists in North America today, primarily as a disease of wild animals. It is regretable that figure 1.9 of the Negri body is not clearer. The presentation of the concept of oral vaccination of wild animals in the chapter on "Epizootic Hemorrhagic Disease" of deer is intriguing. The chapter on "Bluetongue" is well written, but in one area there is a problem in organization. Under immunity, the first two paragraphs are really discussing sero-diagnosis and not immunity in any sense of resistance. I would suggest that these might be relocated in subsequent editions. In the chapter on "Myxomatosis and Fibromatosis of Rabbits, Hares, and Squirrels" the Shope's papilloma of rabbits is mentioned under "Diagnosis" but is not adequately discussed anywhere in the volume, leading to some confusion. In the chapter on "Lymphocytic Choriomeningitis" the infections in mice is clearly presented as a public health threat but in describing the signs of infection in mice the author fails to note the similarity of the signs to those of rabies infection in mice. The paragraph on immunity in the chapter on hog cholera is unusually good.

The second section in the book is devoted to bacterial infection of wild animals. In the chapter on "Tularemia," the valuable table of hosts seems to have omitted antelope, which have been reported in Wyoming as sources of human infection. In the chapter on "Pasteurellosis," avian susceptibility in this group of organisms is not clearly defined or mentioned in the chapter. It is later referred to, and although this is a volume on mammalian diseases, the inter-relationship should have been brought out. The chapter on "Brucellosis" is good but does not meet the question of whether or not Brucella neotomae infects domestic animals or man. Although I am not aware that Br. neotomae is of consequence, I wish the author had given his opinion in this area. The chapter on "Listeriosis" points up the need for further study of the epizootiology and epidemiology of this disease. The chapter on "Tick-Borne (Pasture) Fever and Rickettsialpox" is of considerable current interest.

Erlichia canis infections is a potential in dogs returning from Southeast Asia. The comment that this group of organisms has never been known to infect humans is of considerable interest; since most of the known rickettsial diseases are zoonotic, the comment assumes additional significance.

The third section of the book is brief and devoted to skin tumors of the cervidae.

The fourth and final section of the book, devoted to toxins, is also reasonably brief. It is a very broad presentation but is a good overview and presents examples of many types of toxicities and their implications for wild animals.

This is a book that I can recommend highly for workers in wildlife diseases, veterinarians, and workers in the field of public health, particularly those that are concerned with the zoonoses. In one volume it gathers together must of the available pertinent information on the diseases of wild mammals and indicates their relationship to diseases in domestic animals and man.

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ATTENTION MEMBERS - 1972 DUES

Billing envelopes for 1972 dues were mailed to members on October 1. If you haven't received yours, please remit \$10.00 U.S. immediately in order to avoid possible delay in receiving WDA publications. There will be no second notice. Members who are delinquent after December 31 will be removed from the mailing list.

1971 ANNUAL WDA MEETING

More than 110 individuals registered for the 1971 Annual Wildlife Disease Conference. This year's conference was held at Colorado State University, Fort Collins, Colorado, during August 25-27 and offered a diverse program of 77 technical papers. In addition to the technical papers, the Larimer County Veterinary Medical Association sponsored an evening social program that provided the opportunity to informally discuss research presented during that program. The final session of the meeting consisted of a "Stump the Experts" panel which attempted to answer questions from the floor.

The conference banquet was highlighted by awarding of the WDA's Distinguished Service Award to Dr. Lars Karstad and the Emeritus Member Award to Dr. Carlton M. Herman. Dr. Herman has now received both awards presented by WDA, being the first recipient of the Distinguished Service Award in 1969.

Several new officers were installed this year with Drs. Lowell Adams assuming the leadership reins as president, Les Page as vice-president, Milt Friend as secretary and Glen Hoffman succeeding himself to council.

Among the more important items considered at the Council Meeting were the possibility of development of a European Section of WDA and establishment of other sections within WDA. Included in the proposal was the publication of a newsletter by WDA at an annual cost of \$2.00 per subscriber to provide impetus for European members to join. This proposal was referred to the publications committee for study. Sectionalization was proposed as a mechanism whereby groups or organizations with interests related to wildlife diseases could belong to WDA and still