



Book Reviews

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BOOK REVIEW . . .

Diseases of Poultry, 10th Edition, B. W. Calnek (editor), with H. John Barnes, C. W. Beard, Larry R. McDougald, and Y. M. Saif (associate editors). Iowa State University Press, Ames, Iowa 50014, USA, 1997, 1,080 pages. \$134.95 (US).

Since the first edition of "Diseases of Poultry" was published in 1943, this text has become the standard reference for diseases of domestic fowl and remains an important general source of information for both infectious and non-infectious avian diseases. The tenth edition was published 6 yr after the ninth and, with some exceptions, updates information and literature citations through 1996. As summarized in the preface, approximately 25% of the photographic plates are new and the number of color plates has doubled, several chapters and subchapters from the old edition have been merged, absorbed into other chapters or expanded to full chapters, and two major new chapters on Nutrition and Infectious Disease and Emerging Diseases and Diseases of Complex and Unknown Etiology have been added. Total number of contributing authors has increased from 77 to 96, and the tenth edition includes 30 new authors or coauthors.

As is the case with any multiauthored work, the amount of effort that went into updating and revising individual sections varies. Extensive revisions and rewrites have been made in chapters and subchapters on Staphylococcosis, Infectious Anemia, Colibacillosis, Mycoplasmosis, Chlamydiosis, Pullorum Disease and Fowl Typhoid, Paratyphoid, Quail Bronchitis, Arboviruses, Turkey Viral Hepatitis, and Tumors of Unknown Etiology, while others remain virtually identical to the ninth edition.

Good examples of this are the subchapters on protozoan and helminth parasites. These have been reorganized from three to two chapters in the tenth edition, but only minor changes have been made in the text and literature citations remain almost the same. A few typographical errors that were present in the ninth edition still persist in the tenth, e.g., misspelling of *Haemoproteus* on page 900.

The new subchapter on Interactions Between Nutrition and Infectious Disease and the new chapter on Emerging Diseases and Diseases of Complex or Unknown Etiology should be of particular interest to wildlife disease workers. While the authors have not made any direct links to the wildlife disease literature, they provide succinct reviews of the impacts of nutrition on immunological responsiveness to disease-causing organisms and describe emerging diseases and diseases of unknown etiology that have not yet been identified in wild reservoirs of infection. Sections on Poult Enteritis-Mortality Syndrome ("Spiking Mortality") of Turkeys, Fulminating Disease of Guinea Fowl, Muscovy Duck Parvovirus, and Pigeon Circovirus are included in this latter section.

Pound for pound, "Diseases of Poultry" is worth the investment if you are looking for a general source book on avian diseases that covers a wide range of topic areas. If you already own a copy of the ninth edition and use it primarily as a general reference, the purchase price may not be worth the updates and revisions that have been made in the latest edition.

Carter T. Atkinson, USGS-Biological Resources Division, Pacific Island Ecosystems Research Center, P.O. Box 218, Hawaii National Park, Hawaii 96718, USA.

BOOK REVIEW . . .

Brucellosis, Bison, Elk, and Cattle in the Greater Yellowstone Area: Defining the Problem, Exploring Solutions, edited by E. Tom Thorne, Mark S. Boyce, Paul Nicoletti, and Terry J. Kreeger. Published for the Greater Yellowstone Interagency Brucellosis Committee by the Wyoming Game and Fish Department, 5400 Bishop Blvd., Cheyenne, Wyoming 82006. 1997. 219 pp. \$15.00 U.S.

The subject of this book is one of the best known and longest running wildlife disease management issues in the United States. The book is a compilation of papers from a 1994 national symposium, the goal of which was "to provide as much information as possible about the numerous complex issues surrounding brucellosis in the GYA [Greater Yellowstone Area]".

The 27 papers include reviews on: brucellosis in cattle, bison, elk, and humans; management of bison and elk in the GYA; the brucellosis eradication program in the United States; current and future efforts to resolve the problem of brucellosis in the GYA; and law pertaining to the brucellosis situation in the GYA. Also included are papers which indicate the positions of relevant federal and state agencies, the livestock industry, conservation organizations, animal protectionist groups, and some native (aboriginal) Americans on the issue. There is also a paper describing the issue of brucellosis and tuberculosis in some free-ranging bison populations in northern Canada, which compares and contrasts the Canadian issue with that of the GYA.

The book presents little new information, but is valuable in consolidating much of the pertinent information on the subject, both scientific and philosophical. There are editorial oversights in the book, including spelling mis-

takes, mis-aligned data tables, poorly reproduced maps, and errors in citing literature. Although there is variation in quality, most of the papers are well written and informative.

Perhaps the most positive aspect of the book is the expressed desire by all represented governmental and non-governmental organizations to cooperate in managing brucellosis in the GYA. How this may translate into an overall course of action is not yet clear, but there are aspects of management that all agree on. For example, all contributors to the book agree that the high incidence of brucellosis in elk populations that use winter feed grounds would fall precipitously if feeding programs were curtailed and the elk were dispersed on winter range. Clearly, this is a winning opportunity to reduce the relative risk of both intra- and interspecific transmission of *Brucella abortus*, and the involved agencies are pursuing it. Consensus likely will be more difficult to reach on the matter of managing brucellosis in free-ranging bison.

Whether or not it is achievable scientifically, the goal of eradicating brucellosis in the GYA may not be achievable politically in light of current technology. This book suggests that in the interim there are smaller, incremental management goals that might, at least, be beneficial in further reducing the risk of transmission of *B. abortus* from wildlife to livestock in the GYA. This modestly priced book should be of interest to a broad audience, given the fundamental and specific aspects of the issue for wildlife management, conservation, disease control, and public policy.

S. V. Tessaro, Animal Diseases Research Institute, Canadian Food Inspection Agency, Box 640, Lethbridge, Alberta, Canada T1J 3Z4.

BOOK REVIEW . . .

Avian Medicine and Surgery, Second Edition, B. H. Coles. Published by Blackwell Science Ltd., Cambridge, Massachusetts, U.S., ISBN #0-632-03356-8, 408 pp. \$44.95.

In the second edition of "Avian Medicine and Surgery," the author provides an updated version of the latest information available in the rapidly growing field of avian medicine. This compact softbound volume is divided into two distinctly different sections. The first 237 pages are devoted to 10 narrative chapters dealing with general topics such as anatomy, surgery, and reproductive problems. The latter half of the book is composed of 13 appendices which summarize information on chemotherapeutic agents, infectious and parasitic diseases, toxins, and other useful miscellaneous information. The text is well referenced internally with many of the narrative remarks parenthetically directing the reader to more detailed information contained within specific appendices. The index also is very extensive and even provides page numbers for such jargon-like terms as "mutes" and "kecks" which may be unfamiliar to many avian practitioners. Another thoughtful inclusion was the addition of a glossary of terms in Appendix 13.

In general, the author does an admirable job of compressing a large amount of information into a small space. However, in some chapters the rapid-fire dissemination of facts may leave readers wishing the details were organized in a more easily accessible format. In contrast, other sections of the narrative are more reader-friendly and colored with useful anecdotal information from the author's own personal experiences. Readers will find an effective summary treatment of avian clinical pathology provided in a chapter entitled "Aids to Diagnosis." Individuals who treat or rehabilitate wild species should benefit from the chapters on "Nursing and Aftercare" and the "Release of Casualty Wild Birds." The former chapter discusses basic issues and techniques that caretakers should consider whenever a bird is maintained in a hospital environment. The latter chapter reviews techniques for evaluating the fitness of individuals for release. Factors affecting survival, assessing physical fitness, the release environment, and release techniques are all briefly, but well covered.

The appendices are organized in a tabular fashion which, once the reader becomes familiar with their arrangement, makes it easy to retrieve a great deal of information in a short period of time. This quick reference format complements the small size of the book. The che-

motherapeutic agents are organized according to drug class (e.g., beta-lactam, aminoglycoside, anti-parasitic, etc.). This allows the author to provide information on the mechanism of action under the heading for each category; however, it makes locating individual drugs more cumbersome. This is especially true because the drug classes are not arranged alphabetically. Similarly, the infectious agents also are not alphabetized. The tables addressing particular infectious diseases provide a wealth of information, but fail to discuss the mechanism of transmission.

In general the book is well-written, but there are several typographical errors and some statements which may be misleading or confusing to inexperienced avian practitioners. For example, on page 38 the author mentions that avian pox lesions "are not seen in Anseriformes." However, Tripathy (1991) emphasized that "all avian species are susceptible to avian poxviruses." On page 62, the author writes that there is "normally a post-prandial rise in plasma bile acids." Instead, K. Flammer (pers. comm.) found that in five species of psittacine birds, food ingestion caused a significant decrease in total serum bile acids. What is referred to as the brachial vein on page 46 also is labeled the basilic vein by anatomists (Orosz et al., 1992). On page 123 the author states that the "autochthonous gut flora of most birds consist mostly of Gram negatives." While normal gastrointestinal flora will vary depending upon the diet of different species, the digestive tracts of most grain- and fruit-eating Psittaciformes contain Gram positive organisms (Harrison and Ritchie, 1994). In the formulary (Appendix 1) the author lists the oral dosage and frequency for enrofloxacin as 7.5-15 mg/kg to be given every 24 hr. After conducting pharmacokinetic trials using African grey parrots, orange-winged amazon parrots, blue-fronted amazon parrots, and Goffin's cockatoos, K. Flammer (pers. comm.) found that oral enrofloxacin should be administered at doses of 7.5-15 mg/kg every 12 hr. For Senegal parrots oral enrofloxacin should be administered at doses of 15 mg/kg every 8 to 12 hr (K. Flammer, pers. comm.). In this same appendix, the author fails to list a dosage for the oral formulations of doxycycline. This is most likely due to the European orientation of the text (Vibravenos is not currently available in the USA).

There also appear to be some errata which should be corrected before any subsequent editions are published. On page 56 the author states that lithium heparin should "not be used

for estimations of glucose or calcium." Then on page 65 it is written that blood samples for calcium analysis "should be collected in heparinised tubes since all other normal anticoagulants bind calcium ions in the blood." Also, following an excellent discussion the how elevated blood levels of CO₂ predispose an anesthetized patient "to atrial and ventricular fibrillation and to cardiac failure", the author states that "cardiac failure during anesthesia of birds is most likely to be caused by hypocapnia. . . ."

The figures provided throughout the text are useful, but the diagrams are somewhat simplistic. In the "Preface to the First Edition" the author states a goal of providing "some guidance to the busy general practitioner presented with a medical or surgical problem concerning birds, with which he may not be very familiar." For these individuals, additional diagrams depicting greater detail (particularly in the chapter dealing with anatomy and physiology) may be helpful. Twelve photographic plates are grouped near the center of the text. For the most part they are of good quality, but their small size makes it difficult to discern some of the smaller lesions which are depicted. Arrows or other indicating marks would be helpful in this case.

For wildlife professionals dealing with avian species, this book contains useful information which is often omitted from other medical texts. It provides a broad overview of basic topics in a succinct format. For the general veterinary practitioner, this book serves as a useful quick reference and will complement the other more detailed texts that are available. However, I would not recommend it as the sole reference for a veterinary library.

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Greg Massey, Hawaii Division of Forestry and Wildlife, Maui Veterinary Services Office, 2600 Piipholo Road, Makawao, Hawaii 96768, USA.

BOOK REVIEW. . .

Rhino Ranching, a Manual for Owners of White Rhinos, J.G. du Toit. 64 pp. South African Veterinary Association, P.O. Box 12900, Orderstepoort 0110, Republic of South Africa. R105-00 or \$35.00 US (air mail); R85-00 or \$30.00 US (surface mail).

This soft-bound volume was published as a wildlife management guide for the South African Veterinary Foundation. Clive H. Walker, the chairman of the African Rhino owners Association, provides the forward to this volume, with a summary of the present status of rhinos in Africa. The volume is small in size, slightly larger than a pocket book, making it useful for carrying in the field. For such a relatively short publication, the book is quite comprehensive, covering many aspects of management for the white rhino, in 10 concise chapters. Following an introductory chapter, subjects covered include, habitat requirements, social behaviour, reproduction, management, capture, mortali-

ties, politics, finances, and reasons for ranching rhinos. Numerous diagrams, maps, sketches and photographs, both in colour and black and white, illustrate salient points. The book is not referenced in the text, but provides a list of sources consulted. Three appendices are found at the end of the book, one on organisations that provide consultation and funds for rhino research and utilisation; a second on resources for political and veterinary assistance, information on brokers, stud books and conferences, and required supplies; and a third listing the provincial departments within South Africa involved with local rhino ranching. Although the book primarily addresses South African issues, much of the information would be of use to those elsewhere involved in the management of white rhinos.

Nancy D. Kock, Faculty of Veterinary Medicine, University of Zimbabwe, P.O. Box MP 167, Mount Pleasant, Harare, Zimbabwe.