

BOOK REVIEW

Edited by Richard Botzler
botzlerr@sbcglobal.net

Book reviews express the opinions of the individual authors regarding the value of the book's content for Journal of Wildlife Diseases readers. The reviews are subjective assessments and do not necessarily reflect the opinions of the editors, nor do they establish any official policy of the Wildlife Disease Association.

Reptiles and Amphibians: Self-Assessment Color Review. 2nd Ed. By Fredric L. Frye. CRC Press, Taylor and Francis Group, Boca Raton, Florida. 2015. 252 pp. ISBN 9781482257601. US \$43.95 hardback; \$35.16 paperback.

David E. Green

This is a colorful, thoroughly illustrated and diverse introduction to the diseases, surgery, clinical pathology, parasitology, and radiography of reptiles and amphibians. More than 90% of the 232 cases (or “Questions” as each case is called by the author) are reptiles, and these are fairly well balanced among chelonians, snakes, and lizards (predominantly iguanas). The variety of images that accompany the introduction to each case is excellent, and might include a photograph of a live animal, a radiograph, a blood smear, a fecal smear, specimens from a necropsy, photomicrographs, and infrequently, differential blood count and serum chemistries. Often, each case has two or more images, and can include two or more animals. Questions are then posed about the gross photographs (or other images), but the posed questions are not simply, “What’s the disease?”, but also concern treatments, pathogenesis, status of an organism as a pathogen or not, amenability to surgery, risks to remaining animals, etc. Additional images in the answers to many cases are often helpful, definitive, and of high quality.

The range of cases is broad, but because only 7% of cases are amphibians, this is predominantly a text on reptiles. There are

five cases involving the Order Crocodylia, but there are no tuataras, caecilians, or larval amphibians. About 35 cases are blood smears, fecal smears, or skin scrapings, which should appeal to clinicians and clinical pathologists, but many of these cytological images ask merely the identity of the cell, the parasite, or the parasitic egg (or oocyst). The cytological images are consistently of high quality, but it might be frustrating to some readers that the host animal from which the blood cells or parasites originated is often not identified. Mere identification of disease-free animals or their sex constitutes >40% of the amphibian cases and several reptile cases.

In the Preface, the author repeats his purposes from the first edition as being to teach and train students and young veterinarians by presenting diverse images, and then to pose questions that go far beyond a diagnosis, but also to emphasize treatments, prognosis, etiology, prevention, or impact on a colony. Nearly all reptiles and amphibians in this text are captive animals; readers seeking information on diseases of free-ranging reptiles and amphibians will be disappointed with this book. The “answers” for many cases often have a half page of text and additional images, and some answers are longer than a page. However, answers for many cases involving blood smears, parasitology, or identity of the animal, tend to be very brief, often a single line, with no delving into prognosis, treatment, prevention, or impact on a colony. A chance for the author to share experiences, common diseases, treatments, prognoses, etc., clearly was lost in the “identify” cases.

In this 2nd edition, the author notes that several cases have been contributed by other

veterinarians. These additional contributors are carefully acknowledged in the Preface, but are not identified with their cases. The multiple contributing veterinarians in this edition might explain the inconsistent answers; rarely are etiology, disease, treatment, prognosis, colony impact, etc., itemized in the answers for each case.

The quality of images (mostly gross photographs and radiographs) suffers somewhat because of the small size of the book (roughly 20×15 cm) and the small size of images; most images are 4×5 cm or 5×7.5 cm, with some being larger. In my opinion, about 5% of images are too dark to demonstrate a feature or the abnormality. The quality of the radiographs is also uneven. However, additional radiographs often are included in the answers.

The cases in the text are presented randomly, as intended by the author to reflect random presentation of amphibians and reptiles in the clinical environment. This makes the book exceptionally difficult to use as a reference. However, the adequate index will help to locate examples of many diseases. If there is a 3rd edition, consideration should be given to deliberately arranging the cases by taxonomic orders or suborders.

The range of demonstrated diseases in reptiles is very good, including viral, bacterial, fungal, protozoal, helminthic, nutritional, toxic, traumatic, and neoplastic etiologies. The range of diseases and syndromes in amphibians is sparse. Ranaviruses, paramyxoviruses, snake fungal disease, and mesomycetozoon parasites are not illustrated. Certainly, many other diseases and syndromes could be considered absent from the book, but ranaviruses especially are worthy of mention or inclusion, because of their lethality and emerging prevalence in chelonians.

The accuracy and quality of answers for the 232 cases generally is very good. But there are some errors for those so inclined to search for

them. These include a misspelled scientific name (Case 18), a garbled explanation of Bidder's organs in toads (Case 129), diagnosis of inflammation of the prepuce and hemipenis (balanoposthitis) in a lizard that lacks a prepuce (Case 207), and duplication of a case (Case 39 and Case 160). Although larval amphibians are not included among the cases in this text, it should be mentioned that there is a lethal toxicity problem associated with handling larval amphibians with latex and nitrile gloves. At present, it is not known whether adult (or postmetamorphic) amphibians are as sensitive to latex and nitrile gloves, but it probably would be prudent when handling a client's sick pet frog to wear nontoxic, disposable gloves. If gloves are worn when handling larval and, probably, neotenic amphibians (e.g., axolotls), they should be vinyl gloves that have been thoroughly rinsed in tap water. Rinsed vinyl gloves are the preferred gloves when handling postmetamorphic amphibians (Case 170).

In summary, this book will be useful to veterinarians and students working with pets and captive wildlife, and less so for those working with free-ranging amphibians and reptiles. With few exceptions, images are of good quality with many additional images included in the "answers" segment for each case. There is a decided imbalance in the quantity of information in the answers to the cases, but the explanations of treatments, surgeries, prognosis, and risk to remaining animals is of high quality. The author has fulfilled his goal of randomly presenting interesting reptile and amphibian cases for teaching and training students and young veterinarians.

David E. Green, US Geological Survey, National Wildlife Health Center, 6006 Schroeder Road, Madison, WI 53711 (degreen@usgs.gov).