

# Book Reviews

## BOOKS FOR VETERINARIANS

### Manual of Small Animal Emergency and Critical Care Medicine (2nd edition)

Douglass K. Macintire,<sup>†</sup> Kenneth J. Drobatz, Steve C. Haskins, & William D. Saxon

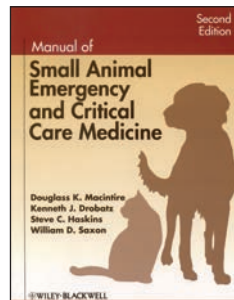
690 pages. 2012. Wiley-Blackwell.  
ISBN 978-0-8138-2473-4. Price \$89.99.

<sup>†</sup>Deceased

The first edition of the *Manual of Small Animal Emergency and Critical Care Medicine* has become a resource and reference for students, technicians, general practitioners, and specialists. The second edition retains many of the attributes of the first that made it a must-have for any small animal library. The authorship of the first edition was preserved for the second edition, and the unfortunate passing of one of the senior authors, Dr. Douglass Macintire, may make this second edition a timeless and priceless reference. All authors offer practical, thorough, and evidence-based approaches to the stabilization and care of emergency and critical care patients and the management of specific categories of emergencies.

The outline format is retained in the second edition, which makes it an easy-to-access and comprehensive reference for both general practitioners and emergency care teams. The chapters on anesthesia and analgesia and nutrition are exceptionally well written and provide excellent guidelines for practitioners. Each chapter includes a detailed review of anamnesis, assessment, diagnostic testing, and treatment, including considerations for surgical and postoperative care, inpatient monitoring, and potential complications when appropriate. Despite the generally thorough coverage of most topics, detailed discussion of some novel and controversial treatments are lacking. Specific limitations include a lack of appropriate integration or prioritization of some contemporary therapeutics for cardiovascular disease and thrombosis prevention and treatment. Further, the second edition was released prior to the RECOVER CPR guidelines; therefore, those guidelines are not integrated into this book. Regardless, the second edition remains an accessible, well-written, and user-friendly text to guide practitioners in managing common small animal emergencies in any setting.

Reviewed by Amy J. Alwood, DVM, DACVECC  
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### Canine Sports Medicine and Rehabilitation

M. Christine Zink & Janet B. Van Dyke

465 pages. 2013. Wiley-Blackwell.  
ISBN 978-0-8138-1216-8. Price \$99.99.

*Canine Sports Medicine and Rehabilitation* is a well laid out book with clearly defined chapter headings. In general, each chapter is concise and clearly written and contains gray boxes with case studies that are used to provide a helpful overview of various conditions and treatment. Highlights of the book include the chapters on nutrition, muscle physiology, disorders of the spine, and locomotion. I am disappointed that there is no discussion of toe injuries because they represent a substantial percentage of the caseload for sports medicine practitioners.

Although some chapters are well referenced with current scientific literature, many chapters frequently cite expert opinion rather than peer-reviewed studies, which speaks to the current paucity of research in the field of animal rehabilitation. Research findings from human studies are cited throughout the book. Though I concede that these studies can give us an idea of the likely effects of rehabilitation in veterinary patients, some important studies of rehabilitation in veterinary species are not referenced (eg, the kinematics of therapeutic exercises in dogs) or are omitted in favor of references to studies performed in humans (eg, skin cooling in dogs in response to ice).

The question one has to ask when reviewing a book is does it meet the claims made on the book's cover? The editors of this book have taken on the daunting task of covering the vast and sprawling subject of canine sports medicine and rehabilitation. A canine rehabilitation and sports medicine practitioner needs to be well versed in subjects as diverse as muscle metabolism and prosthetics. This book is described as a comprehensive, gold-standard reference on the subject. An exhaustive list of injuries and their treatment is not possible, especially in a small 1-volume edition such as this. Regardless, the authors should be lauded for their efforts, and I look forward to the second edition being an expanded, 2-volume set.

Reviewed by Julia Tomlinson, BVSc, PhD, DACVS, DACVSMR  
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### BSAVA Manual of Canine and Feline Neurology (4th edition)

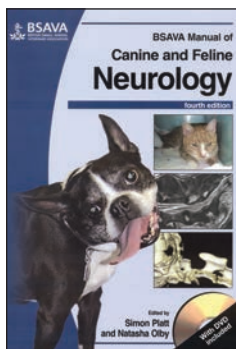
Simon Platt & Natasha Olby

542 pages and DVD. 2013. Wiley-Blackwell.  
ISBN 978-1-9053-1934-3. Price \$149.99.

Much has changed in the world of small animal neurology in the 8 years between the third and fourth



editions of the *BSAVA Manual of Canine and Feline Neurology*. Once again, the authors have done an excellent job of assimilating a vast amount of information into a comprehensive, well-referenced, user-friendly guide that will be useful to practitioners at all levels. The all-inclusive nature of the text makes it a practical study guide for aspiring veterinary students. The organization of the text into 3 parts (diagnostic procedures, neurologic presentation, and therapeutics) and the comprehensive indexing make it a quick reference for general practitioners. Finally, this book can be used as a thorough review for those in the specialty practice of neurology.



New to the fourth edition is a chapter on genetic diseases. This chapter addresses the advances in genetic testing and how these tests have broadened our understanding of the genetic basis of disease. The chapter on rehabilitation has been expanded to emphasize the importance of these treatment modalities for the successful recovery of neurosurgical patients. The chapter on traditional Chinese veterinary medicine provides an introduction to a topic that clients are requesting information about with increased frequency. The inclusion of a supplemental DVD with more than 100 video clips is arguably the most important update to this edition. Most neurologists would agree that pattern recognition is an important part of our job. There is simply no substitute for seeing gait disturbances and other neurologic deficits in real clinical cases.

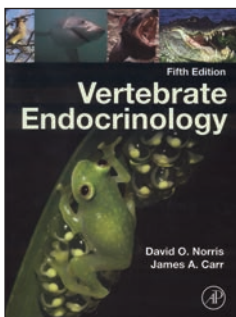
**Reviewed by Todd M. Bishop, DVM, DACVIM**  
**Upstate Veterinary Specialties**  
**Latham, NY**

### Vertebrate Endocrinology (5th edition)

**David O. Norris & James A. Carr**

585 pages. 2013. Elsevier Academic Press.  
 ISBN 978-0-12-394815-1. Price \$99.95.

One of the strengths of *Vertebrate Endocrinology* is that almost every page contains a pertinent color illustration or table (often selected from different sources), which makes the book easy and pleasant to read. The book has 15 chapters, and the hypothalamic-pituitary axis is emphasized. Each chapter ends with study questions and suggestions for further reading, which will help students prepare for an examination. The first 3 chapters are dedicated to the identification and comparison of endocrine and nonendocrine regulators, biochemical issues, and important experimental concepts in endocrine research, such as the need for and use of adequate controls, selection of representative samples, and an-



alytical methods for various hormones. Subsequent chapters address the organization of the hypothalamic-pituitary axis in mammals, compared with that in nonmammalian vertebrates. This comparative approach between mammals and nonmammalian vertebrates is also used in the chapters dedicated to the thyroid and adrenal glands, pancreas, digestive and reproductive systems, and calcium regulation loops. This book will be useful for graduate students interested in comparative endocrinology. However, although most chapters do mention various endocrine disorders, the book lacks clinical vision or applications relevant to species of veterinary interest that would be beneficial for veterinary students. As an instructor of veterinary endocrinology, I found this book to be a good source for both illustrations and basic information, and a complement for clinical and animal management discussions in endocrinology.

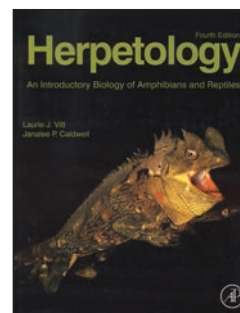
**Reviewed by Hugo Eiler, DVM, PhD**  
**University of Tennessee**  
**Knoxville, Tenn**

### Herpetology: An Introductory Biology of Amphibians and Reptiles (4th edition)

**Laurie J. Vitt & Janalee P. Caldwell**

757 pages. 2014. Elsevier.  
 ISBN 978-0-12-386919-7. Price \$89.95.

The release of the fourth edition of *Herpetology: An Introductory Biology of Amphibians and Reptiles* comes at a perfect time. Global interest in herpetology continues to increase with new professional organizations and societies with motivated and intelligent herpetologists emerging in nearly every country. Many of the new insights into the understanding of reptile and amphibian biology have been updated in this edition resulting in its increased size and making it a great value.



The authors indicate that some of their goals for this edition were to present the many discoveries in herpetology that have been made since the third edition was released in 2008 and update the taxonomy, which continues to change as a result of increasingly sophisticated evolutionary analyses. For example, the taxonomies in chapters 15 through 22 differ from those in previous editions, thus highlighting the rapid advances being made in phylogenetics. Additionally, many new species, genera, and families have been described since the last edition. Finally, the work of some of the leading herpetological researchers is featured in this edition.

The authors have kept the text to a level that will be useful to undergraduates with a basic understanding of biology, but will still be of interest and value to those with a more extensive background. The authors have

chosen to use color throughout the text because color is an important component in the lives of reptiles and amphibians. The colored images are particularly useful in the chapters in which crypsis, aposomatic coloration, and social behaviors mediated by visual displays are discussed. This book will be an excellent addition to the library of anyone interested in herpetology.

**Reviewed by Dr. Byron J.S. de la Navarre, DVM**  
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**Chicago, Ill**

## **Bacterial Toxins: Genetics, Cellular Biology and Practical Applications**

**Thomas Proft**

234 pages. 2013. Caister Academic Press.  
ISBN 978-1-908230-28-7. Price \$319.00.

Written by 20 experts and divided into 9 chapters, *Bacterial Toxins: Genetics, Cellular Biology and Practical Applications* meets the editor's stated goal of highlighting recent advances in toxin research, particularly those made by complete genome sequencing and protein crystallography. Although each chapter is comprehensive and provides a detailed review of recent findings on a given topic and could be a stand-alone resource, the chapters work well together when integrated into this book. The sections on *Escherichia coli* verotoxin, *Helicobacter pylori* CagA, and staphylococcal superantigen-like toxins, in particular, are written with researchers in mind. Although these chapters contain review sections that students and practitioners may find useful, they are followed by in-depth descriptions of toxin structure and the effects of toxins on cells at the protein level, which will likely be of interest only to microbiologists and cell biologists. Conversely, the chapters on *Clostridium difficile* toxin and the uses of botulinum toxin are more appropriate for a general audience.

Initial consultation of the table of contents could lead readers to wonder whether advances in the understanding of anthrax toxin and clostridial toxins aside from *C. difficile* are discussed in this book. Although these toxins do not have specific chapters dedicated to them, they are discussed in some depth in chapter 3, titled Poor-forming Toxins. This book is not intended to be an exhaustive review of bacterial toxins, but anyone with a willingness to embrace an in-depth study of the material will find it to be a valuable review. As long as readers recognize the intended scope of the book, they will not be disappointed. The price of the book may make it best suited for library acquisition rather than individual purchase, but overall, it is worth reading.

**Reviewed by Sara D. Lawhon, DVM, PhD, DACVM**  
**Texas A&M University**  
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## **A Comprehensive Guide to Toxicology in Preclinical Drug Development**

**Ali S. Faqi**

885 pages. 2013. Elsevier.  
ISBN 978-0-12-387815-1. Price \$199.95.

A crucial phase during drug development is the broad series of preclinical toxicological studies necessary for evaluating drug safety prior to the initiation of clinical studies in humans. Safety issues remain a leading factor for attrition during drug development, and most safety-related attrition occurs during preclinical toxicological testing. *A Comprehensive Guide to Toxicology in Preclinical Drug Development* is a detailed guide for toxicologists, regulatory scientists, and academics working in drug discovery, development, or regulatory sciences. The inclusion of the word comprehensive in the title is quite fitting because all topics regarding toxicology during drug development are expertly covered as are metatopics that, while important to the subject matter, one might expect to find in other references. The 36 chapters in this book include detailed discussions of both classical toxicology (pharmacokinetics and toxicokinetics; acute, subacute, and chronic toxicity testing; carcinogenicity testing; clinical and anatomic pathology; developmental and reproductive toxicology; and genetic toxicology) and emerging technologies (drug-abuse potential testing, imaging, predictive toxicology, carcinogenicity in genetically engineered animals, metabonomics, and toxicogenomics). Both small and large molecules are integrated into discussions, a first for such a comprehensive reference. Moreover, this book includes chapters dedicated to preclinical testing for specific drug classes (vaccines, oligonucleotides, monoclonal antibodies, and botanicals), indications (oncology and ocular), and special populations (pediatric). Chapters on regulatory toxicology regarding the role of the study director, preclinical monitoring, and biostatistics are also included. Additionally, there is a chapter on new drug regulations and approval in China, an important emerging drug market, and a chapter on virtual drug development of in-licensed pharmaceuticals, which will be of interest to entrepreneurs. These 2 metatopical chapters serve as good primers and provide readers with references that are solely dedicated to each topic. A specific strength of the book is the contributions made by an outstanding group of thought leaders, which provide readers with fresh approaches to the challenges of preclinical safety. Because of the knowledge-based experience conveyed by the authors, this book will likely become a go-to reference for those involved in the planning, execution, or oversight of drug development. From a veterinary perspective, the sole weakness of this comprehensive book is the absence of a specific chapter on animal health drug development. This book will be an important addition to the libraries of researchers in toxicology and related disciplines, and with its comprehensive approach to preclinical toxicology, it will be a key reference for any medical professional interested in drug development.

**Reviewed by Terrence P. Clark, DVM, PhD, DACVCP**  
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