

# Exotic Animal Medicine for the Veterinary Technician

Third Edition

This third edition, *Exotic Animal Medicine for the Veterinary Technician* is a comprehensive yet clear introduction to exotic animal practice for technicians in the classroom and clinic setting alike. With an emphasis on the exotic species most commonly present to a veterinary practice, coverage includes avian, reptiles, amphibians, small mammals, and wildlife.

For the first time in full color, this edition features updates throughout with a brand new chapter on fish medicine. Information on anatomy, restraint, and common diseases to radiology, surgical assisting, and parasitology are included.

In addition to provide technicians with all the information necessary to confidently and competently treat exotic patients, *Exotic Animal Medicine for the Veterinary Technician* offers easy-to-follow descriptions of common procedures and techniques. A companion website offers review questions and images from the book in PowerPoint for download.

Features

• Full color

• Covers anatomy, restraint, common diseases to radiology, surgical assisting, and parasitology

• New chapter on fish medicine

#### Companion Website

This book is accompanied by a companion website: [www.wiley.com/go/ballard/exotics](http://www.wiley.com/go/ballard/exotics)

The website includes:

- Supplementary interactive multiple choice questions
- PowerPoint slides of all figures from the book for downloading

Editors

**Ballard, DVM** has worked in veterinary medicine since 1974, first as a veterinary assistant and then later as a veterinary technician. Dr. Ballard holds a Doctorate in Veterinary Medicine from the University of Georgia College of Veterinary Medicine. Before this, she developed a veterinary technology program at Gwinnett Technical College in Lawrenceville, Georgia, where she acts as program director. Dr. Ballard also practices small animal medicine as a relief veterinarian.

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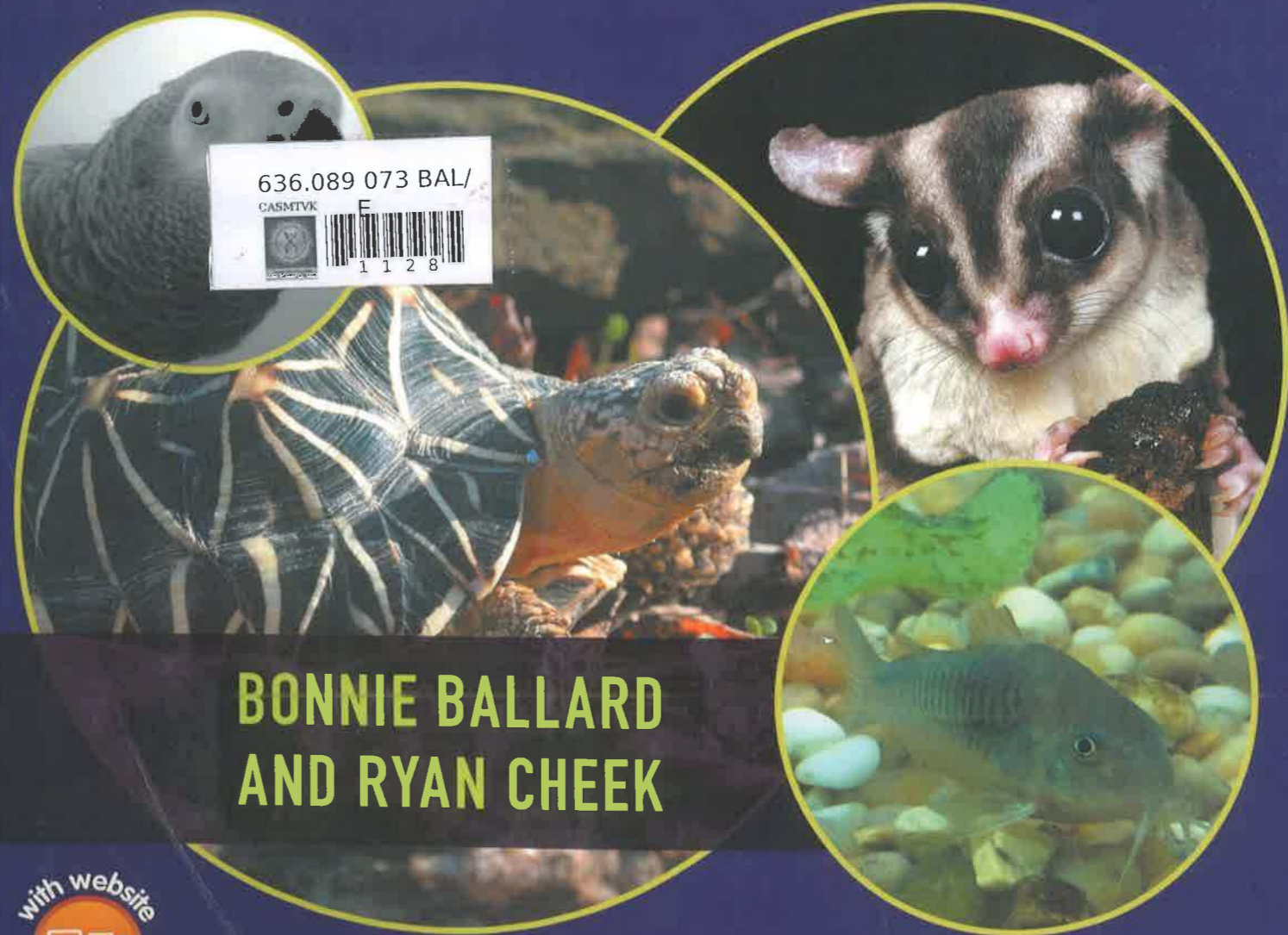


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# Exotic Animal Medicine

## for the Veterinary Technician

Third Edition



BONNIE BALLARD  
AND RYAN CHEEK



WILEY Blackwell

# Exotic Animal Medicine for the Veterinary Technician

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Edited by

**Bonnie Ballard DVM**

and

**Ryan Cheek RVTg, VTS (ECC)**

**Third Edition**

**WILEY** Blackwell

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I would like to thank all the contributors who like Ryan and I have a passion for exotic animal medicine and want to share what we know with veterinary technicians. I would also like to thank Ryan for the idea of doing this book and my husband Brian who unselfishly allows me the time to work on it.

Bonnie Ballard

I would like to thank my family and friends for the support they have given me throughout my career as a veterinary technician and throughout this entire process. A special consideration goes to my wife, Savannah, for her endless patience with me and the many projects that I always have my hands in. I would also like to acknowledge the technicians working in the field of exotic animal medicine. This is an ever changing and evolving field that requires dedication and patience. Your commitment to this field is truly inspiring.

Ryan Cheek

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## Contributors

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**Sandy Skeba**, LVMT, received an AS degree in veterinary technology at Harcum Junior College in Pennsylvania in 1987. After graduation she worked at the New Bolton Center at the University of Pennsylvania Veterinary School, first in large animal ICU and later as a nurse in the small animal hospital. From 1990 to 2000 she worked as a senior technician at the Philadelphia Zoo, and then as a senior laboratory technician at the Alaska SeaLife Center. She is currently employed at the Nashville Zoo.

**Douglas K. Taylor**, DVM, MS, DACLAM, received his veterinary degree from Michigan State University in 1995 and practiced small animal medicine for five years afterward. He received his specialty training in laboratory animal medicine at the University of Michigan, where he also earned his MS degree

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## Preface

The third edition was written to provide the veterinary technician with important updated information about a variety of species commonly seen in exotic practice reflecting changes in this branch of medicine that have occurred since the second edition. This text would be beneficial to the technician who would like to work with these animals but may have graduated years ago before this area of medicine was popular. This text would also be helpful to the technician who works for a veterinarian who would like to add exotic species to his or her practice. While it was not written for veterinarians, they may find it beneficial as well.

With the help of this book, the technician will know what questions to ask to obtain an adequate history, be able to educate the client about husbandry and nutrition, be able to safely handle and restrain common species, and be able to perform necessary procedures when needed. Because the field of exotic animal medicine is a dynamic one, new knowledge is constantly emerging about many of the species kept as pets, and new information can in some cases contradict what was thought to be true before. For many species, exotic animal medicine could be said to be in its infancy. We realize that for some of the species featured in this book, the information presented may need to be modified in the future. What we know about exotic animal medicine is

forever changing and much has not been scientifically proven, it is common to find contradictory information from one reputable source to the next. This can create frustration but also provide the challenge of working in a cutting edge area of medicine. This is the major reason why attending continuing education in this area of medicine is paramount. Veterinary technicians working in exotic medicine need to engage in lifelong learning to be up to date on the latest information.

New contributors have been added to this edition as well as new chapters. While some of the contributors provided drug dosages and formularies, we do not take responsibility for what is provided. We also realize that while technicians do not make decisions about what drugs to use in any animal, they are required to be familiar with different pharmaceuticals, know where to find a dosage, and know how to calculate it.

This book was written with the assumption that the technician already is educated in topics such as anatomy, physiology, medical terminology, pathology, and pharmacology. Only what is unique to the species featured is presented.

We hope this book proves to be beneficial to all technicians interested in exotic animal medicine.

Bonnie Ballard  
Ryan Cheek

## About the Companion Website

This book is accompanied by a companion website:

[www.wiley.com/go/ballard/exotics](http://www.wiley.com/go/ballard/exotics)

The website includes:

- Supplementary interactive multiple choice, true/false, and short answer questions.
- PowerPoint slides of all figures from the book for downloading.

The password for the site can be found in the following location: last word in the legend for Figure 2.37.

Instructors can also gain access to a companion website with the above materials and answers to the multiple choice questions. To access this site, please go to the book's page on [wiley.com](http://wiley.com) and navigate to the Instructor Site; you can then register your information to gain access.



**Nashville Zoo at Grassmere**  
Operating Protocols  
Enrichment Documenting Scale

Updated 12/24/2013



## Enrichment Documenting Scale

**Direct Evidence:** keeper observes animal and assesses its level of interaction with enrichment initially

|   |  |
|---|--|
| 1 | Animal runs/flees from enrichment                                      |
| 2 | Animal appears to ignore enrichment                                    |
| 3 | Animal orients to/looks at, but does not physically contact enrichment |
| 4 | Animal makes brief contact (e.g., sniffs/licks/pecks at enrichment)    |
| 5 | Animal makes substantial or repeated contact with enrichment           |

**Indirect Evidence:** keeper is unable to observe animal's response to enrichment by directly observing interaction, but instead used indirect evidence of the animal's use of enrichment

|   |   |
|---|---|
| A | No evidence of interaction (e.g., pristine, untouched cardboard box)                      |
| B | Minimal evidence of interaction (e.g., evidence of touching or brief contact with box)    |
| C | Moderate evidence of interaction (e.g., box moved and urine marked)                       |
| D | Substantial evidence of interaction (e.g., box upside down, urinated on, and moved 8 ft.) |
| E | Significant evidence of interaction (e.g., box ripped to shreds and scattered everywhere) |

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