

Handbook of Wildlife Chemical Immobilization, Third Edition

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BOOK REVIEWS

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The following reviews express the opinions of the individual author(s) 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.

Handbook of Wildlife Chemical Immobilization, Third Edition. By Terry J. Kreeger, and Jon M. Arnemo (published by Terry Kreeger, printed by Sunquest, Shanghai, China. 2007). 432 pp. US \$50 (paperback).

Review by Keith D. Amass

When I look at my collection of Chemical Immobilization references they are neat, orderly, well cared for, and in pristine condition, except for three books—Terry Kreeger's three editions of the *Handbook of Wildlife Chemical Immobilization*. They sit there in tatters on the bookshelf, covers taped back on, pages folded, Post-it notes coming out in all directions. They are unquestionably the most worn and ragged books on my shelf; because they are always the first references I pick up when I begin to plan a field capture procedure. Why have I found these handbooks so useful in the initial planning stages? More about that later ...

In this third edition, Dr. Terry Kreeger (Wyoming Game and Fish Department, Wheatland, Wyoming) continues to update and improve his excellent reference on wildlife chemical immobilization, this time teaming up with world renowned field veterinarian Dr. Jon Arnemo (Forestry and Wildlife Management, Hedmark University College, Campus Evenstad, Elverum, Norway).

As has been the case in the first two editions, the reference contains three major sections. Section 1 (pages 1–152) presents a very brief review of the basics of Chemical Immobilization, addressing topics such as DEA scheduling, Record Keeping, Withdrawal Times, Drug Volume Calculation, Injectable and Inhalant Medications, Antagonists (Reversal Agents), Remote Drug Delivery Equipment (Darts and Dart Projectors), Considerations Prior to Capture, Approach, Drug Administration Sites, Handling the Immobilized Animal, Animal Emergencies and Medical Treatment, and a Quick Reference Guide

For Human Exposure. Section 2 (pages 153–297) presents Drug Dosages By Species for more than 450 species arranged in alphabetical order, including the average weight range for the species, recommended drug combination and dosage, supplemental drug and dosage (should the animal be incompletely immobilized), species specific comments, and a list of species-specific references. Section 3 (pages 298–387) represents a lifetime of reference accumulation and review by the authors and the late Dr. Ulie Seal, containing more than 2,000 references specifically associated with chemical immobilization. This is followed by a glossary of terms and an index.

In addition to technical updates (including expanded primate anesthesia information contributed by Dr. Marno Walters, Atrix Zoo Amsterdam), the third edition is now full color, has a sewn binding, and it is indexed. Note that the second edition contributions of Dr. Jacobus Raath are retained in this edition as well.

The book is written for a broad-range audience intended to include wildlife biologists, wildlife and zoo veterinarians, game ranchers, animal control personnel, and students. The book is easy to read, well organized, and provides information that would be useful for all user groups. This book is not intended as a “self-taught” course but will provide an excellent brief overview of the technique of chemical immobilization for the novice, as well as many useful field tips for the experienced user.

Although the handbook was produced to be a “field” reference, I find greater utility in this book as a “desk” reference or initial stepping stone to assist in the planning stages of species-specific field-capture protocol development, and in the development of standard operating procedures (SOPs) for accidental exposure to immobilizing medications.

Why is the *Handbook of Wildlife Chemical Immobilization* a good starting point for me in formulating a capture plan? It is my contact directory. The Drug Dosages by Species section combined with the Reference section gives me a quick review of what drugs have

been used in a species historically and who did the work. I can then acquire the original reference papers, and in addition, contact the researchers directly for their advice on the most current (and many times not yet published) species-specific information.

Please note the Drug and Dosages by Species section provides drug dosages only. As with any book providing only a “drug dosage,” responsible use will require the reader to obtain more detailed information about the complete capture protocol from the original reference or the original author before use.

The Quick Reference Guide for Human Exposure is also a good source of initial reference material for an emergency care physician or toxicologist to use in conjunction with other readily available medical resources, such as the *Micromedex Poisindex Management*, to develop SOPs for accidental human exposure to immobilizing medications.

The only problem I have encountered in using this handbook is that sometimes it is

difficult to find the exact citation from which a drug dosage was acquired. The authors provide a species-specific drug dosage list, followed by a list of references; however, the individual drug dosages are not specifically referenced. If I made any recommendations for the next edition it would be to include a section on Preventing Accidental Human Exposure to Immobilizing Drugs and to expand the section on the field treatment of hypothermia.

This book is bargain priced for the years of field-experienced advice it contains and for the multitude of hours both authors have spent acquiring, accumulating, and reviewing references. It is a “must have” on the bookshelf of anyone using the technique of chemical immobilization.

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