

Book Review of The Wildlife Techniques Manual

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The Wildlife Techniques Manual. 2 Volumes.

Editor, Silvy NJ. The Johns Hopkins University Press, Baltimore, Maryland. Seventh edition, February 7, 2012.

Product dimensions: 11.3 × 8.9 × 3.0 inches. 1136 pages. Hardcover: US\$150.00. ISBN-10: 1-4214-0159-2; ISBN-13: 978-1-4214-0159-1.

The 7th edition of *The Wildlife Techniques Manual* is a landmark publication that will certainly become a classic and highly recommended tool (Figure 1). The 7th edition is completely revised and updated, and for the first time appears as a two-volume set. Volume 1, with 22 chapters, covers techniques in wildlife research, and Volume 2, with 15 chapters, covers techniques in wildlife management (see the appendix for a complete list of chapters).

Since its original publication in 1960, *The Wildlife Techniques Manual*, a concept created by The Wildlife Society, has remained the cornerstone text for the professional wildlife biologist. Every decade or so (Figure 2) the book is revised, edited, and updated. As new techniques are developed, new chapters are warranted. Edited by Nova J. Silvy, the new edition covers new methodologies used in the field and laboratory. Topics include experimental design, wildlife health and disease, capture techniques, population estimation, telemetry, vegetation analysis, conservation genetics, wildlife damage management, and urban wildlife management.

As I read through the manual, one chapter in particular caught my attention: Chapter 5, use of dogs in wildlife research and management (Dahlgren 2012). I have a keen interest in the use of dogs in conservation because I worked with a dog handler in the early 2000s searching for the often elusive San Joaquin kit fox (*Vulpes macrotis mutica*; Smith et al. 2006). My dog handler colleague, Dr. Deborah A. Smith, was indeed a co-author on this chapter and I was very pleased to see her work mentioned in this manual. Certainly, the use of dogs in wildlife studies is a new thing? In assuming this, I am wrong. The 4th edition was the first to have a chapter specifically on the use of dogs in wildlife biology (Zwickel 1980). However, a chapter specific to dogs as wildlife management tools did not appear again until the 7th edition. The ebb and flow of chapter topics represents how the wildlife research community perceives demand for various field techniques and methods.

Chapter 6 is an important example of how relevant *The Wildlife Techniques Manual* is to current events (Sheffield 2012). At 9:45 PM, CDT, on 20 April 2010, the Deepwater Horizon offshore oil drilling rig exploded and resulted in a significant oil spill along the Gulf Coast. Chapter 6 addresses how to identify and handle contaminant-related wildlife. Various contaminants are addressed including mercury, lead, cadmium, solvents, ethylene glycol, and petroleum products. As new environmental catastrophes develop due to demands of our ever-changing world, *The Wildlife Techniques Manual* will be right there to provide



Figure 1. All editions of *The Wildlife Techniques Manual*, with the 7th edition featured as two volumes (far right).

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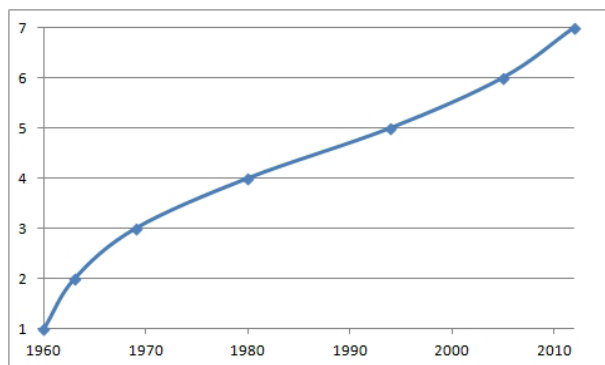


Figure 2. All editions of *The Wildlife Techniques Manual* plotted by year and edition; 1st and 2nd editions Mosby (1960, 1963); 3rd edition Giles (1969); 4th edition Schemnitz (1980); 5th edition Bookhout (1994); 6th edition Braun (2005); and 7th edition Silvy (2012).

guidance and techniques to preserve and conserve our natural resources.

The second volume of the 7th edition is key in understanding wildlife in the landscape and how it relates to the human dimension. With habitat loss, fragmentation, and modification, wildlife species are becoming displaced and have fewer places to go. The second volume discusses wildlife management on a variety of landscape types, including rangelands, inland and coastal wetlands, farmlands, and urban environments. As impacts to the remaining wildland areas continue, these chapters will become cornerstone guides on informing wildlife managers how to address a variety of wildlife management issues. Region-wide management plans will quickly become vital to the continued conservation of natural resources, and tools like Habitat Conservation Plans will (and should be already) be a paramount force in wildlife preservation (Randel et al. 2012).

In summary, this new and revised 7th edition could not have been published at a better time. The dynamic and changing landscape needs wildlife managers with a passion for wildlife conservation and preservation; this two volume techniques manual set is a vital tool in accomplishing the goals and aspirations of local and global wildlife biologists to the betterment of our planet. As this 7th edition is field-tested and exercised to its limits, I predict an 8th edition will soon need to be developed, as loss of habitat, disappearing biodiversity, and the ever-expanding human population will create new challenges that will need to be quickly addressed before it's too late.

Literature cited

- BOOKHOUT TA. (Editor). 1994. *Research and Management Techniques for Wildlife and Habitat*. 5th edition. Allen Press, Inc., Lawrence, Kansas, USA.
- BRAUN CE. (Editor). 2005. *Techniques for Wildlife Investigations and Management*. 6th edition. Port City Press, Baltimore, Maryland, USA.
- DAHLGREN DK, ELMORE RD, SMITH DA, HURT A, ARNETT EB, CONNELLY JW. 2012. Use of dogs in wildlife research and management. In: *The Wildlife Techniques Manual*. 7th edition. Editor, NJ Silvy. The Johns Hopkins University Press, Baltimore, Maryland, USA. 140-153.
- GILES RH JR. (Editor). 1969. *Wildlife Management Techniques*. 3rd edition. Edward Brothers, Inc., Ann Arbor, Michigan, USA.
- MOSBY HS. (Editor). 1960. *Manual of Game Investigational Techniques*. Edward Brothers, Inc., Ann Arbor, Michigan, USA.
- MOSBY HS. (Editor). 1963. *Wildlife Investigational Techniques*. 2nd edition. Edward Brothers, Inc., Ann Arbor, Michigan, USA.
- RANDEL CJ, CLARK HO JR, NEWMAN DP, DIXON TB. 2012. Environmental impact assessment and habitat conservation plans. In: *The Wildlife Techniques Manual*. 7th edition. Editor, NJ Silvy. The Johns Hopkins University Press, Baltimore, Maryland, USA. 307-318.
- SCHEMNITZ SD. (Editor). 1980. *Wildlife Management Techniques Manual*. 4th edition. The Wildlife Society, Bethesda, Maryland, USA.
- SILVY NJ. (Editor). 2012. *The Wildlife Techniques Manual*. Two volumes, 7th edition. The Johns Hopkins University Press, Baltimore, Maryland, USA.
- SMITH DA, RALLS K, CYPHER BL, CLARK HO JR, KELLY PA, WILLIAMS DF, MALDONADO JE. 2006. Relative abundance of endangered San Joaquin kit foxes (*Vulpes macrotis mutica*) based on scat-detection dog surveys. *Southwestern Naturalist* 51(2):210-219.
- ZWICKEL FC. 1980. Use of dogs in wildlife biology. In: *Wildlife Management Techniques Manual*. 4th edition. Editor, SD Schemnitz. The Wildlife Society, Bethesda, Maryland, USA. 531-536.

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Appendix: List of chapters**Volume 1****Research and analytical techniques**

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|------------------|---|
| Chapter 1 | Research and experimental design |
| Chapter 2 | Management and analysis and wildlife biology data |

Capture and handling techniques

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|------------------|--|
| Chapter 3 | Capturing and handling wild animals |
| Chapter 4 | Wildlife chemical immobilization |
| Chapter 5 | Use of dogs in wildlife research and management |
| Chapter 6 | Identifying and handling contaminant-related wildlife mortality or morbidity |
| Chapter 7 | Wildlife health and disease: surveillance, investigation, and management |

Identification and marking techniques

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|-------------------|---|
| Chapter 8 | Criteria for determining sex and age of birds and mammals |
| Chapter 9 | Techniques for marking wildlife |
| Chapter 10 | Wildlife radiotelemetry and remote monitoring |

Measuring animal abundance

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|-------------------|---|
| Chapter 11 | Estimating animal abundance |
| Chapter 12 | Use of remote cameras in wildlife ecology |
| Chapter 13 | Radar techniques for wildlife research |
| Chapter 14 | Invertebrate sampling methods for use in wildlife studies |
| Chapter 15 | Population analysis in wildlife biology |

Measuring wildlife habitat

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|-------------------|---|
| Chapter 16 | Vegetation sampling and measurement |
| Chapter 17 | Modeling vertebrate use of terrestrial resources |
| Chapter 18 | Application of spatial technologies in wildlife biology |

Research on individual animals

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|-------------------|--|
| Chapter 19 | Animal behavior |
| Chapter 20 | Analysis of radiotelemetry data |
| Chapter 21 | Reproduction and hormones |
| Chapter 22 | Conservation genetics and molecular ecology in wildlife management |

Volume 2**Management perspectives**

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|-------------------|--|
| Chapter 23 | Human dimensions of wildlife management |
| Chapter 24 | Communications and outreach |
| Chapter 25 | Adaptive management in wildlife conservation |

Managing landscapes for wildlife

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| Chapter 26 | Managing forests for wildlife |
| Chapter 27 | Managing rangelands for wildlife |
| Chapter 28 | Managing inland wetlands for wildlife |
| Chapter 29 | Managing coastal wetlands for wildlife |
| Chapter 30 | Managing farmlands for wildlife |
| Chapter 31 | Managing urban environments for wildlife |
| Chapter 32 | Assessing and managing wildland recreational disturbance |

Managing wildlife populations

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|-------------------|--|
| Chapter 33 | Harvest management |
| Chapter 34 | Identification and management of wildlife damage |
| Chapter 35 | Ecology and management of small populations |
| Chapter 36 | Captive propagation and translocation |
| Chapter 37 | Habitat conservation planning |