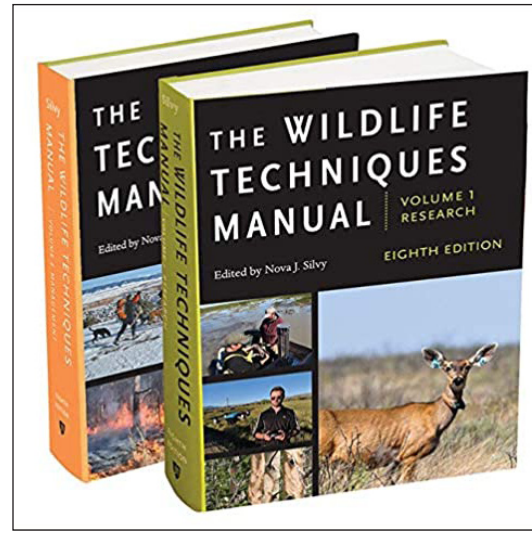
Book Review

The Wildlife Techniques Manual, Eighth Edition

Volume 1: Research
Volume 2: Management

Edited by Nova J. Silvy
2020, Johns Hopkins University Press
Baltimore, Maryland
759 and 614 pages



Review by Justin Small

Wildlife researchers and managers are consistently tackling ecological and conservation issues that are increasing in complexity and scope. Wildlife issues often span beyond singular research frameworks and management jurisdictions, preventing modern wildlife conservation from operating in mutually exclusive arenas (i.e., research or management). As a wildlife researcher whose research is conducted on both public and private rangelands, and across multiple stakeholder groups, techniques to answer difficult questions and offer time-sensitive solutions must pull from both research and management arenas. Historically, book or journal resources that wildlife professionals could readily access for necessary scientific guidance were contained in many documents, making timely information acquisition difficult. Fortunately, the eighth edition of *The Wildlife Techniques Manual* has consolidated the most comprehensive 2-volume set of technique manuals to date, making the most current expert research and management approaches easily attainable to wildlife professionals.

In *Volume 1: Research*, 4 new research technique chapters have been added, including those on "identification of animals from field signs" and "techniques for wildlife nutritional ecology." Because of considerable information overlap, 3 chapters ("modeling vertebrate use of terrestrial resources," "wildlife radiotelemetry and remote monitoring," and "analysis of radiotelemetry data") from the previous seventh edition have been combined into a single chapter ("radiotelemetry, remote monitoring, and data analyses"). To reflect the current use of unmanned aerial vehicles and bioacoustics monitoring within wildlife research, 2 detailed chapters on both subjects have been included.

For scientific investigations to produce objective, accurate, and defensible results and desired outcomes, the appropriate analytic and experimental design must lay the foundation to all research applications, and chapter 1—"research and experimental design"—does just that. Chapter 1 describes research design and proper analytic methods, which are the hallmarks for all successful research projects. The proceeding chapters describe methods, techniques, and considerations for capturing and handling animals during field applications and identifying and marking animals for varying study applications. The last section addresses proper quantitative techniques for measuring species abundance and research on individual animal species occupying various landscapes and environments.

In *Volume 2: Management*, 9 new chapters have been added to help wildlife professionals make the transition from research to management techniques. The chapters are laid out in 3 main sections. The first section, "managing perspectives," appropriately frames the human dimension paradigm of wildlife management. A former academic advisor once correctly told me, in regard to wildlife issues, that modern wildlife professionals would be just as involved in the management of humans as the management of wildlife. This section covers the necessary major topics, concepts, and perspectives of ethics in conservation, human dimensions, public outreach, conflict in wildlife management, and adaptive management. However, the authors in chapter 31, on "adaptive management in wildlife conservation," do an excellent job explaining why adaptive management is paramount for managers to understand and why it has become the cornerstone in management frameworks to purge increasingly complex natural resource issues through and find effective real-time solutions.

The second section, "managing landscapes for wildlife," gives wildlife managers a composite of resources to approximate management guidelines, actions, and recommendations for different landscapes and ecosystem types, from broad western rangelands to inland coastal wetlands. The last section, "managing wildlife populations," thoroughly covers aspects of how to apply wildlife biology techniques in field applications, spanning from harvest management to developing environmental assessments and habitat conservation plans. The section ends with the authors detailing how managers must be vigilant and willing to adjust and adapt management strategies to a rapidly changing climate. This chapter does an extraordinary job framing the ecological effects of climate change on both flora and fauna, and the biological and evolutionary responses from species in environments with constant climate variability.

The eighth edition of *The Wildlife Techniques Manual*, with 50 chapters and 148 contributing authors, provides an unparalleled information resource that all wildlife professionals should possess in their library. I would challenge anyone involved in wildlife disciplines to find another consortium of scientific information and breadth of expertise as found in these 2 volumes.

Justin Small is a postdoctoral fellow at Utah State University (USU). He has a B.S. degree in wildlife ecology from Washington State University and a Ph.D. degree in wildlife biology from USU. He has worked extensively on conservation issues within the public and private land interface of the Intermountain West. He is passionate about using adaptive management strategies through broad stakeholder collaboration to find solutions to conservation issues.