The Wildlife Techniques Manual. 2 Volumes.

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BOOK REVIEW

The Wildlife Techniques Manual. 2 Volumes.

Edited by: Nova J. Silvy
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The 7th edition of The Wildlife Techniques Manual represents a revolution in the tradition of the Wildlife Society, which has produced a summary of wildlife sciences almost every 10 years. This manual is organised into two volumes: the first one contains 22 chapters, includes 686 pages and covers research arguments; the second volume has 15 chapters, 414 pages and covers techniques in wildlife management. This manual represents a heroic attempt to synthetise an exponentially growing number of publications in wildlife sciences, which has at least doubled during the last decade. This relevant editorial task, led by Nova J. Silvy, will provide a reference publication for years to come, both for wildlife research and wildlife management. The manual is well written and clearly organised. The presence of several information boxes help maintain a clear structure of the main body of the articles and makes it easier to discuss, in depth, specific arguments of relevance.

The manual is written for a wide audience, including researchers, managers, students and (in part) policy makers. As with past editions, I believe that this edition of the Wildlife Techniques Manual will remain a cornerstone text for professional wildlife biologists.

The manual starts with a very remarkable paper by Garton et al., focused on experimental design and is very useful to all ecologists, who set the stage for the transformation of wildlife science into hard science with a relevant theoretical and philosophical background. A useful complement of this chapter is given in a paper on data analysis by Collier & Schwertner. Following the brilliant introductive chapters, the reader finds several useful reviews on different aspects of wildlife science such as capture of wild species, use of dogs and veterinary methods, animal tagging and radio-tracking. In these chapters, the contributors make an impressive effort to summarise huge amounts of information and to present it concisely and clearly.

When I began working as a wildlife scientist 30 years ago, I realised, with much surprise, that humans could send people to the moon but were unable to count how many deer lived in a forest. Section 4 (Chapters 11-15) deals with this and related tasks and, undoubtedly, progress in this field has been so formidable that population assessment and dynamics are now relevant parts of wildlife science and management. Unfortunately, the level of this section of the manual is not as developed as might have been expected. The theoretical background is sometimes weak and several methods, such as distance sampling in Pierce et al., or elasticity of demographic parameters, or population viability analysis in the Dinsmore & Johnson contribution, are overlooked despite their relevance in wildlife management and conservation. Redundancy in presentations and some gaps in the literature cited weaken this section, but despite these shortcomings, this section of the manual is a useful introduction to, for instance, population dynamics and assessments.

The section about resource assessment for wildlife populations was very interesting. For instance, much of the literature published during the last 20 years has stressed the importance of habitat quality and resource availability

in shaping individual behaviour and population patterns. Besides a useful (at least for me) chapter on vegetation sampling presented by Higgins et al., the presentation of modelling resource use and selection by McDonald et al. is very clear, even to the profane. Finally, the use of modern spatial technologies is very well- summarised by O'Neil et al. The final section of the first volume is devoted to the importance of behavioural analysis. In this context, the paper by Millspaugh et al. is quite advanced by explicitly considering the movement ecology paradigm and the use of mechanistic home-range models. This chapter also provides a good summary of the use of radio-tracking data and contains a useful list of web resources.

The topic of volume 2 is wildlife management. The first section of this volume, 'Management perspectives', is of broad interest. In particular, the paper by Organ et al. is very useful because it explains clearly, and in depth, the principles of adaptive management. The next section in this volume is devoted to 'Managing landscapes for wildlife' and is organised into five chapters (i.e. forests, rangelands, inland wetlands, coastal wetlands and farmlands). These five chapters are very well written and present interesting historical overviews of the changes in the history of the different ecosystems covered and the evolution of management. In my opinion, a weakness of this section is that the authors consider North American ecosystems exclusively, with no reference to experience simultaneously gained in other areas of the world. This choice makes these chapters less interesting for non-American wildlife managers. This is also the case in the remarkable paper on harvest management by Connelly et al. which, with additional effort, could have been made of much more general interest. The chapter about ecology and management of small populations by Mills et al. is highly recommended to everybody interested in conservation of small populations at risk.

To conclude, I recommend that the 7th edition of The Wildlife Techniques Manual should be a must for all wildlife managers and ecologists.

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