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The Karoo: Ecological Patterns and Processes

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The Karoo: Ecological Patterns and Processes

Abstract

This book consists of chapters that examine a wide range of topics concerning the ecology of the little known, arid karoo of South Africa: "a vast region of rugged landscapes and low treeless vegetation" (p xxi). The karoo has a very high level of species diversity and endemism, particularly the flora that "probably exceeds 7000 species of which up to 50% are endemic" (p 44). This fact alone makes the karoo an extremely interesting ecological system suitable of book-length treatment, particularly if it is well done, as in this case.

Disciplines

Desert Ecology | Other Ecology and Evolutionary Biology | Terrestrial and Aquatic Ecology

Comments

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Review

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to interpret results. Overall, I highly recommend this book to anyone interested in environmental microbiology, because it is a good source of information on microbiology techniques that have been developed to overcome the limitations of traditional culturing methods.

ROSALIND JAMES, *Beneficial Insects Research Unit, Agricultural Research Service, U.S. Department of Agriculture, Weslaco, Texas*

THE KAROO: ECOLOGICAL PATTERNS AND PROCESSES.

Edited by W Richard J Dean and Suzanne J Milton. Cambridge and New York: Cambridge University Press. \$165.00. xxiii + 374 p; ill.; index. ISBN: 0-521-55450-0. 1999.

This book consists of chapters that examine a wide range of topics concerning the ecology of the little known, arid karoo of South Africa: "a vast region of rugged landscapes and low treeless vegetation" (p xxi). The karoo has a very high level of species diversity and endemism, particularly the flora that "probably exceeds 7000 species of which up to 50% are endemic" (p 44). This fact alone makes the karoo an extremely interesting ecological system suitable of book-length treatment, particularly if it is well done, as in this case.

The volume is separated into 5 broadly defined parts that cover biogeography (5 chapters), form and function (5 chapters), ecological dynamics (4 chapters), human impacts (3 chapters), and the karoo's relationship to other arid and semiarid ecosystems (3 chapters). Although there are diverse topics written by multiple authors, the book has the look and feel of a unified volume and is put together in an aesthetically pleasing fashion. There is a wealth of information about the karoo and its ecological relationships, making this an indispensable volume for anyone working in the karoo ecosystem. One particular strength of the book is that it provides more than a descriptive treatment: many of the chapters deal with dynamic ecological relationships, even though they may not be specifically placed in the section on dynamics.

Although the book is quite good at providing valuable insights into the ecology of the karoo, one might ask whether such a seemingly narrow topic will have broad appeal. It may well not, even though the book has much to recommend to a broader audience. In fact, it should be of interest to anyone concerned with ecological processes in arid environments, particularly those with an interest in their impact of humans.

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ARID LANDS MANAGEMENT: TOWARD ECOLOGICAL SUSTAINABILITY. *Based on a workshop held in Israel, June 1994.*

Technical Editors: Thomas W Hoekstra and Moshe Shachak. Published by the University of Illinois Press, Urbana (Illinois), in cooperation with the International Arid Lands Consortium. \$35.00 (paper). ix + 279 p; ill.; index. ISBN: 0-252-06717-7. 1999.

Sustainability integrates specialties from among the biological, ecological, earth, climatic, physical, economic and social sciences. Treatises on sustainability are frequently parochial, reflecting experiences of authors and editors, but failing to capture the full breadth of the field. *Arid Lands Management* effectively faces this difficulty by concentrating its presentation on the ecological, earth, and physical sciences, with a noticeable focus on water management.

This edited volume contains 18 articles discussing environmental and ecological aspects of sustainability. Articles are grouped into 4 parts: The Ecological Framework for Sustainability, Ecological Systems and Their Management, Arid Lands Management Principles and Analyses, and Progress toward Ecological Sustainability. The volume is derived from a workshop held in 1994, and is comprised of material addressing sustainability research and management in Israel, North America and Australia. Throughout, the editors point out implications for research and management, but specialists will recognize many more of these.

Arid Lands Management provides a thorough overview of sustainability. Articles are well written, and typically targeted for researchers and managers, but are also accessible to professionals from related specialties. Literature reviews are complete enough to provide a valuable one-stop resource for practitioners. Specialists will find most of the articles to be overly conceptual for application to specific problems, but will value the volume as a general reference. Students will find this volume valuable as a rich resource for generating research hypotheses and considering implications, even regarding aspects of zoology, botany, social science and economics.

ERIC E JORGENSEN, *National Risk Management Research Laboratory, U.S. Environmental Protection Agency, Ada, Oklahoma*

TOP OF THE WORLD ENVIRONMENTAL RESEARCH: MOUNT EVEREST-HIMALAYAN ECOSYSTEM. *Ecovision World Monograph Series.*

Edited by R Baudo, G Tartari, and M Munawar. Leiden (The Netherlands): Backhuys. \$91.50. x + 293 p; ill.; subject index. ISBN: 90-5782-004-8. 1998.

This book compiles a broad range of articles that concern high elevation research on the Himalayan Plateau. The contributors have been working in