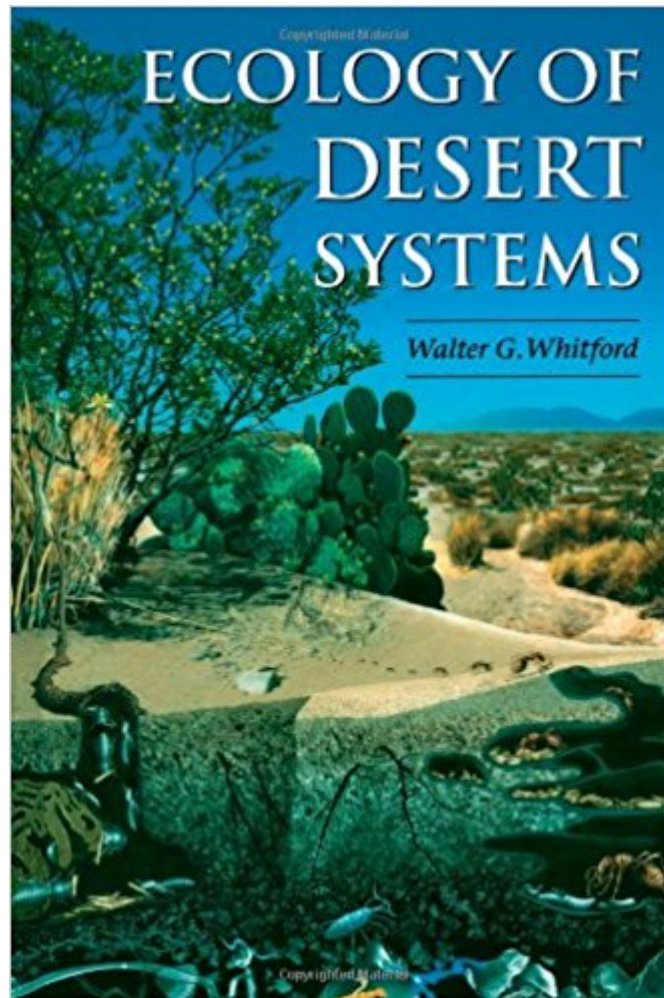




Ebook Directory
the best source of ebook

The book was found

Ecology Of Desert Systems



Synopsis

Conventional wisdom considers deserts stark, harsh regions that support few living things. Most people also believe that water alone makes the desert bloom. *Ecology of Desert Systems* challenges these conventional views. This volume explores a broad range of topics of interest to ecosystem, population, community, and physiological ecologists. Climate, weather patterns, geomorphology, and wind and water processes are examined as variables that affect the distribution of biota through fundamental ecosystem processes. Descriptions of morphological, behavioral, and physiological adaptations of desert biota illuminate, through the lens of patch dynamics, principles for understanding observed patterns of primary production, nutrient cycling, and the effects of consumers. Desertification, and the techniques for monitoring and quantifying it, is examined within the framework of desert ecosystem patterns and processes. * Focuses on the interactions of climate, soil, and biota along a spectrum of spatial and temporal scales* Details the role of animals in desert ecosystems and landscape processes* Examines watershed scale processes, the ecology of ephemeral lakes, and the ecological changes identified with desertification* Outlines the fundamental concepts relevant to sustainable development of arid lands

Book Information

Hardcover: 343 pages

Publisher: Academic Press; 1 edition (April 18, 2002)

Language: English

ISBN-10: 0127472614

ISBN-13: 978-0127472614

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars 1 customer review

Best Sellers Rank: #775,286 in Books (See Top 100 in Books) #46 in Books > Science & Math > Nature & Ecology > Ecosystems > Deserts #421 in Books > Textbooks > Engineering > Environmental Engineering #466 in Books > Textbooks > Science & Mathematics > Biology & Life Sciences > Botany

Customer Reviews

"Ecology of Desert Systems is well written and would be engaging for students with some knowledge of biology. It should also appeal to most professional ecologists who want a succinct and authoritative summary of the important aspects of desert biology. It is written by someone who has

paid his dues spending as much time in the field studying deserts as almost anyone I know."-James A. MacMahon, for ECOLOGY, April 2003 "Whitford's book delivers a large amount of information on arid regions . . . I can recommend this book to anyone interested in the ecology of arid lands."- Stefan Porembski, for PLANT SYSTEMATICS AND EVOLUTIONS, 2004

Conventional wisdom considers deserts stark, harsh regions that support few living things. Most people also believe that water alone makes the desert bloom. Ecology of Desert Systems challenges these conventional views. This volume explores a broad range of topics of interest to ecosystem, population, community, and physiological ecologists. Climate, weather patterns, geomorphology, and wind and water processes are examined as variables that affect the distribution of biota through fundamental ecosystem processes. Descriptions of morphological, behavioral, and physiological adaptations of desert biota illuminate, through the lens of patch dynamics, principles for understanding observed patterns of primary production, nutrient cycling, and the effects of consumers. Desertification, and the techniques for monitoring and quantifying it, is examined within the framework of desert ecosystem patterns and processes.

The author lets us appreciate the multifaceted complexity of desert ecosystems around the world. He presents a unified treatment, ranging from the geology to, naturally, the rainfall and to the plants and fauna that survive. We see that terrain and shade can make dramatic differences in how an organism adapts. Just being in the shade of boulders or vegetation during the hottest times of the day can markedly lower the effective temperature experienced, and hence its water needs. Another survival method is to burrow. Even a tunnel a few centimeters deep into the soil can create a microclimate that is cool and moist. Thus do many desert rodents dig. The book also has a poignant dedication to his daughter who died at 9 years old. So young. The cause is unspecified. We can only silently wonder. But a web search shows that the author and his wife made a student prize in her memory in New Mexico.

[Download to continue reading...](#)

Ecology of Desert Systems Buddhism and Ecology: The Interconnection of Dharma and Deeds (Religions of the World and Ecology) Freshwater Ecology, Second Edition: Concepts and Environmental Applications of Limnology (Aquatic Ecology) Social Ecology: Applying Ecological Understanding to our Lives and our Planet (Social Ecology Series) Ecology: Global Insights & Investigations (Botany, Zoology, Ecology and Evolution) Wetland Ecology (Cambridge Studies in Ecology) Biology and Ecology of Earthworms (Biology & Ecology of Earthworms) Freshwater

Ecology: Concepts and Environmental Applications of Limnology (Aquatic Ecology) Maximum Entropy and Ecology: A Theory of Abundance, Distribution, and Energetics (Oxford Series in Ecology and Evolution) Time and Complexity in Historical Ecology: Studies in the Neotropical Lowlands (Historical Ecology Series) The World of Wolves: New Perspectives on Ecology, Behaviour, and Management (Energy, Ecology and Environment) Reptile Ecology and Conservation: A Handbook of Techniques (Techniques in Ecology & Conservation) Ecology and Classification of North American Freshwater Invertebrates, Third Edition (Aquatic Ecology (Academic Press)) Freshwater Algae of North America: Ecology and Classification (Aquatic Ecology) The Ecology of Phytoplankton (Ecology, Biodiversity and Conservation) Tropical Stream Ecology (Aquatic Ecology) Historical Ecology of Malaria in Ethiopia: Deposing the Spirits (Ecology & History) Ecology: Global Insights and Investigations (Botany, Zoology, Ecology and Evolution) Mapping Media Ecology: Introduction to the Field (Understanding Media Ecology) Media Ecology: An Approach to Understanding the Human Condition (Understanding Media Ecology)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)