1. Record Nr. UNINA9910806888803321 Autore Nicholson Sharon E. **Titolo** Dryland climatology / / Sharon E. Nicholson Cambridge:,: Cambridge University Press,, 2011 Pubbl/distr/stampa **ISBN** 1-107-21589-7 1-139-17932-2 1-283-37839-6 9786613378392 1-139-18890-9 1-139-18762-7 1-139-19021-0 1-139-18299-4 1-139-18531-4 0-511-97384-5 Edizione [1st ed.] Descrizione fisica 1 online resource (xii, 516 pages) : digital, PDF file(s) SCI042000 Classificazione Disciplina 551.65 Soggetti Arid regions climate Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and index. Preface; Acknowledgements; Part I. The Dryland Environment:1. Nota di contenuto Introduction to dryland environments; 2. The geomorphologic background; 3. Vegetation of the dryland regions; Part II. The Meteorological Background: 4. The general atmospheric circulation; 5. The global distribution of arid climates and rainfall; 6. Radiation, heat and surface exchange processes; 7. Water balance; 8. Evaporation; Part III. The Climatic Environment of Drylands: 9. Defining aridity: the classification and character of dryland climates; 10. Desert microclimate; 11. Precipitation in the drylands; 12. Hydrologic processes in the drylands; 13. Desert winds and dust; Part IV. The Earth's Dry Lands: 14. North America; 15. South America; 16. Subsaharan Africa; 17. The Mediterranean lands; 18. Australia; 19. Asia; 20. Coastal deserts; Part V. Life and Change in the Dryland Regions: 21. Drought and other hazards; 22. Desertification; 23. People

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in the dryland environments; 24. Plant and animal life in the desert; 25. Climatic variability and climatic change; Index.

A comprehensive review of dryland climates and their relationship to the physical environment, hydrology, and inhabitants. Chapters are divided into five major sections on background meteorology and climatology; the nature of dryland climates in relation to precipitation and hydrology; the climatology and climate dynamics of the major dryland regions on each continent; and life and change in the world's drylands. It includes key topics such as vegetation, geomorphology, desertification, micro-habitats, and adaptation to dryland environments. This interdisciplinary volume provides an extensive review of the primary literature (covering nearly 2000 references) and the conventional and satellite datasets that form key research tools for dryland climatology. Illustrated with over 300 author photographs, it presents a unique view of dryland climates for a broad spectrum of researchers, environmental professionals and advanced students in climatology, meteorology, geography, environment science, earth system science, ecology, hydrology and geomorphology.