

"A masterful overview of a fundamental topic in climatology by two leaders in the field who provide clear explanations and an up-to-date summary of the literature. Essential reading for anybody interested in climate science."

– Raymond Bradley, Director, Climate System Research Center, University of Massachusetts, Amherst

"A must-have for all climate scientists, not just those working in the boundary layer or on processes at the second and meter scales, a masterpiece of knowledge, experience, insights, and data on observed climate features and modeled climate processes occurring on all scales. For many years to come, this will be a crucial reference and textbook for climate scientists in meteorology, geography, biology and ecology, landscape and urban design, agriculture, remote sensing, and many other disciplines."

– Andrew M. Carleton, The Pennsylvania State University

"This textbook brings the study of microclimate up to date. It does an excellent job of linking the microclimate to the larger scale climate within which it exists."

– Marilyn N. Raphael, University of California, Los Angeles

"The authors succeed commendably in their stated goal to quantitatively integrate processes acting on a small scale (microclimate) with those operating on a larger scale (macroclimate). This volume will serve well as both a senior-level textbook and as an up-to-date reference for the knowledgeable reader."

– Wayne Rouse, McMaster University

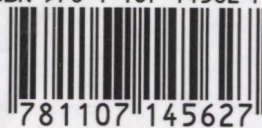
This book provides an up-to-date, comprehensive treatment of the variables and processes of microclimate and local climate, including radiation balance and energy balance. It describes and explains the climate within the lower atmosphere and upper soil, the region critical to life on Earth. Topics that are covered include not only the physical processes that affect microclimate, but also biological processes that affect vegetation and animals, including people. A geographic tour of the microclimates of the major ecosystems around the world is included. All major biomes and surface types are examined, including urban areas, and the effects of climate change on microclimate are described. This book is invaluable for advanced students and researchers in climatology in departments of environmental science, geography, meteorology, agricultural science, and forestry.

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