

The rapid growth in the use of geographic information systems (GIS), remote sensing platforms, and spatial databases has made spatial data more available for ecological and environmental analysis. Unfortunately, too little effort has focused on the appropriate use of such data and the role and depiction of uncertainty in resulting ecological models. This book presents various perspectives on uncertainty in spatial data and relates them explicitly to the needs of ecologists. It applies principles and techniques from geography and other disciplines to ecological research, bringing the tools of cartography, cognition, spatial statistics, remote sensing, and computer science to the ecologist. After describing the uses of spatial data in ecological research and reviewing relevant issues in remote sensing, the authors discuss how to better include the effects of uncertainty in various methods of analysis. This book addresses uncertainty in spatial data development, documentation, analysis, and representation.

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