SECOND EDITION

OCCUPANCY ESTIMATION AND MODELING

INFERRING PATTERNS AND DYNAMICS OF SPECIES OCCURRENCE

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Occupancy Estimation and Modeling, Second Edition **details the methods to obtain more reliable conclusions regarding species occurrence patterns and underlying dynamic processes.**

Occupancy Estimation and Modeling, Second Edition provides methods that can be used to obtain more reliable conclusions about species occurrence by accounting for imperfect detection of the species; ranging from practical advice and considerations for the design of field studies to the statistical analysis of collected data. A main emphasis is how to identify important factors for the current occurrences of species from survey data (e.g., forest type, elevation, distance from a water source), and identify factors that influence changes in species occurrence through time, leading to better predictions of where species may occur. This new edition provides an encompassing view of the options available to address questions of interest, coupled with practical advice drawn from the authors' own experiences.

Key Features

- Synthesizes recent research into a single volume, covering topics from study design to data analysis, to address questions associated with the occurrence of a species;
- Provides expanded coverage of the current methods, such as inclusion of spatial dependencies in occupancy and false-positive detections, and new chapters on multistate occupancy models and integrated habitat-occupancy dynamic models;
- Presents new real-world examples within relevant chapters to illustrate how the methods could be applied to your current research;
- Provides access to data and computer code for greater detail about how to conduct the various example analyses.

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