Finally, and strangely, the chapter on biodiversity is relegated to the end of the book. If this was intended to emphasize one of the most important arguments for protected areas, one that responds to both economic and values-based perspectives, and surely the most important driver of conservation practice both currently and historically, it does not succeed. The degree to which protected areas and their role as havens of wild animals and plants for humankind, both living and future generations, have become contested, is reflected in the apologetic way biodiversity is treated in this book.

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Mapping Species Distributions: Spatial Inference and Prediction by Janet Franklin (2009), xviii + 320 pp., Cambridge University Press, Cambridge, UK. ISBN 9780521876353 (hbk), GBP 70.00; 9780521700023 (pbk), GBP 35.00.

The prediction of species distributions from survey data has been recognized as an important task for a variety of research, management and decision-support purposes. Species distribution models have been used to tackle many ecological questions and have also been used in areas of conservation and resource management that require detailed information on the distribution of organisms and the factors affecting these distributions.

This book introduces the theory and fundamentals of species distribution models and achieves an appropriate balance between the basic information needed by a student who has recently penetrated the complex world of distribution modelling and the deeper description of the various analysis methods that a more experienced researcher could go through. The literature on distribution modelling is voluminous and thus the 56 pages of references are a valuable resource. Additionally, Franklin makes effective use of tables and schemas to condense useful information, examples, study cases, references and data sources.

The book comprises four sections that reflect the modelling framework adopted. The first gives a background to the history and ecological basis of species distribution models, with examples that illustrate their applicability and the ecological and theoretical basis for understanding species' distributions. The historical references, however, prevail too much over the theoretical focus, and the discussion of the role of the ecological niche concept and related theories versus more dynamic concepts (such as source–sink dynamics, dispersal and biotic interactions) deserved more elaboration.

In the second section Franklin introduces the type, quantity and quality of data that we need for modelling species distributions. Advice is given on how to obtain and process biological and environmental data. She also gives excellent examples of studies that have used different types of biological data (presence, presence–absence, presence–pseudo absence) from diverse sources, with distinct sample sizes, resolution and sampling methods. Most examples fall into two groups: studies based on designed surveys in small to medium geographical regions versus studies at the biogeographical scale using large pre-existing datasets from museums, collections or monographs, and making predictions over very large areas (subcontinental to global).

The third section is the core of the book, comprising an overview of the most frequently used modelling methods (regression, machine learning methods, classification, similarity and other methods for presence-only data). Franklin introduces the steps of statistical modelling using Austin's scheme: (a) conceptual model formulation, (b) statistical model formulation, (c) calibration and (d) evaluation. Despite the inherent difficulty in fully exploring each step, we found this a useful guide to formulate, fit and test distribution models. We particularly enjoyed the section that deals with spatial autocorrelation in species distribution data, its consequences for the results of species distribution models and how to deal with correlated predictor variables. Spatial autocorrelation is often an unresolved issue in most species distribution model applications—frequently ignored or regarded as a complex statistical problem. However, Franklin shows that methodological innovations provide a variety of possibilities for post-experimental (statistical) corrections that allow inference in the presence of autocorrelation.

The fourth section deals with model evaluation and a general overview of how some problem-related factors (species attributes, spatio-temporal scale of the data and the choice of modelling techniques) will affect the implementation of species distribution models. This section is informative but we missed a more in-depth discussion of how species distribution models can be used to test or falsify research hypotheses or aid in question-oriented conservation management.

This is a very useful book that we commend to anyone interested in species distribution models. It will be a good introduction for many and a useful reference for others, and is also a guide to the wide literature on the subject. This is probably the best book available on species distribution models. However many as yet open questions will require more intensive research and discussion as species distribution models keep evolving as useful tools in ecological and conservation applications.

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