

This book provides a hands-on introduction to the construction and application of models to studies of vertebrate distribution, abundance, and habitat. The book is aimed at field biologists, conservation planners, and advanced undergraduate and postgraduate students who are involved with planning and analyzing conservation studies, and applying the results to conservation decisions. The book also acts as a bridge to more advanced and mathematically challenging coverage in the scientific literature.

Part I provides a basic background in population and community modeling. It introduces statistical models, and familiarizes the reader with important concepts in the design of monitoring and research programs. These programs provide the essential data that guide conservation decision making. Part II covers the principal methods used to estimate abundance, occupancy, demographic parameters, and community parameters, including occupancy sampling, sample counts, distance sampling, and capture-mark-recapture (for both closed and open populations). Emphasis is placed on practical aspects of designing and implementing field studies, and the proper analysis of data. Part III introduces structured decision making and adaptive management, in which predictive models are used to inform conservation decision makers on appropriate decisions in the face of uncertainty – with the goal of reducing uncertainty through monitoring and research. A detailed case study is used to illustrate each of these themes.

Companion Website and CD-ROM

The authors have provided an electronic companion to the book in two formats: CD-ROM, and a webpage maintained at the University of Georgia, available from: www.blackwellpublishing.com/conroy

Content includes:

- All the worked examples in the book
- Links to modeling and statistical software referenced in the book
- Links to advanced undergraduate and graduate courses

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Cover image: www.istockphoto.com Bison herd grazing in the Yellowstone National Park

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