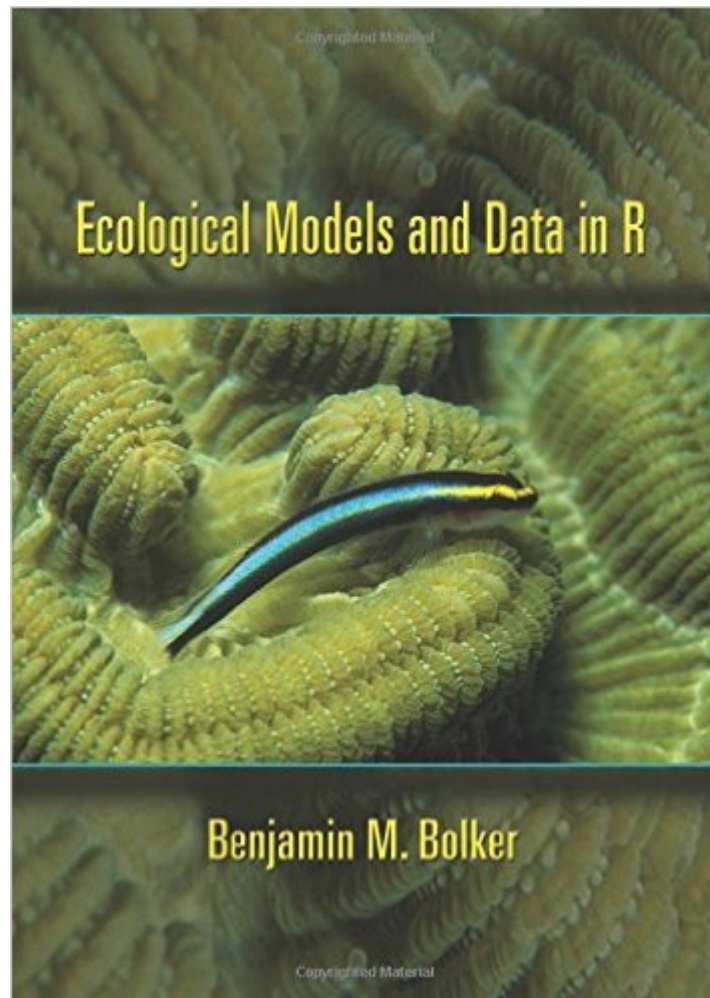


The book was found

# Ecological Models And Data In R



## Synopsis

Ecological Models and Data in R is the first truly practical introduction to modern statistical methods for ecology. In step-by-step detail, the book teaches ecology graduate students and researchers everything they need to know in order to use maximum likelihood, information-theoretic, and Bayesian techniques to analyze their own data using the programming language R. Drawing on extensive experience teaching these techniques to graduate students in ecology, Benjamin Bolker shows how to choose among and construct statistical models for data, estimate their parameters and confidence limits, and interpret the results. The book also covers statistical frameworks, the philosophy of statistical modeling, and critical mathematical functions and probability distributions. It requires no programming background--only basic calculus and statistics. Practical, beginner-friendly introduction to modern statistical techniques for ecology using the programming language R  
Step-by-step instructions for fitting models to messy, real-world data  
Balanced view of different statistical approaches  
Wide coverage of techniques--from simple (distribution fitting) to complex (state-space modeling)  
Techniques for data manipulation and graphical display  
Companion Web site with data and R code for all examples

## Book Information

Hardcover: 408 pages

Publisher: Princeton University Press; 508 edition (July 21, 2008)

Language: English

ISBN-10: 0691125228

ISBN-13: 978-0691125220

Product Dimensions: 7.1 x 1.1 x 10.1 inches

Shipping Weight: 2.2 pounds (View shipping rates and policies)

Average Customer Review: 4.4 out of 5 stars [See all reviews](#) (11 customer reviews)

Best Sellers Rank: #151,615 in Books (See Top 100 in Books) #85 in [Books > Textbooks > Science & Mathematics > Biology & Life Sciences > Ecology](#) #111 in [Books > Science & Math > Experiments, Instruments & Measurement > Methodology & Statistics](#) #112 in [Books > Computers & Technology > Software > Mathematical & Statistical](#)

## Customer Reviews

This book, in part, was developed from Dr. Bolker's graduate course in Ecological Models and Data at the University of Florida. This was the best course I took as a graduate student, it transformed the set of quantitative tools I was able to bring to bear on ecological questions. There was so much

worthwhile material covered in this class that I took it twice (UF only counted the first time:). Since graduate school I still frequently refer to my notes from the class. With the publication of "Ecological Models and Data in R" even those who didn't have the good fortune of being in Bolker's class can learn approaches for integrating ecological theory and data. Bolker's book covers much of the material from his course and thus is an excellent resource for graduate students and faculty alike.

I'm doing infectious disease modeling for a living, and I got a lot out of this book. I was not too familiar with R and with stochastic models. Reading and working through this book taught me a lot. The book is really meant to be worked through carefully. Ben drops nuggets of wisdom everywhere - but you need to read carefully to catch them. It's not the ideal book if you need a quick reference on how to do "X". But as a textbook and to really learn things, it is great. That said, I would hesitate to use it for a real beginner's class. Some background with statistical concepts and a solid math foundation are necessary. And some programming experience, with either R or another language, helps a lot. If students are too weak in any of these areas, it would be hard to teach the material in a single semester course. But the great thing about this book is that anyone motivated to learn the subject matter can "simply" sit down and work through it on their own and at their own pace. It will take time, but it's totally worth it.

For those who already had a good familiarity with R and general procedures of statistics, this book is a great choice, because cover different aspects of statistics compared with classics like "The R Book". Also a good choice for those biologists interested in a little deeper knowledge in mathematics

I am a molecular biologist, trying to work my way through some ecological modeling. I found this book quite useful, since it has lot of examples and details. There is an online supplement for this book, where you can get all the scripts and pdf versions of the chapters, if you want. the R supplements, and the scripts give you a hands-on experience in handling the data in R. Tests like maximum likelihood, monte carlo are explained very well, and the R scripts help in understanding the nitty-gritties of programming. All in all, a good book.

This is an excellent resource for anyone who wants to learn how to model GLMMs in R, complete with R code, graphs, worked examples, simulation methods & lots else. It is certainly a good introductory text, and doesn't assume too much by way of mathematical/statistical background.

However, there's no shallow end to this book. I suspect even those who have mastered GLMMs will find it rewarding to return to this book time and again. Bolker's book is worth owning in my view.

Need to learn more about R as it pertains to Ecology? This is the best book I've ever encountered with easy to understand instructions.

[Download to continue reading...](#)

Data Analytics: Practical Data Analysis and Statistical Guide to Transform and Evolve Any Business. Leveraging the Power of Data Analytics, Data ... (Hacking Freedom and Data Driven) (Volume 2) Data Analytics: What Every Business Must Know About Big Data And Data Science (Data Analytics for Business, Predictive Analysis, Big Data) Ecological Models and Data in R Analytics: Data Science, Data Analysis and Predictive Analytics for Business (Algorithms, Business Intelligence, Statistical Analysis, Decision Analysis, Business Analytics, Data Mining, Big Data) Structure and Function of a Chihuahuan Desert Ecosystem: The Jornada Basin Long-Term Ecological Research Site (Long-Term Ecological Research Network Series) The Data Model Resource Book, Vol. 2: A Library of Data Models for Specific Industries The Data Model Resource Book, Vol. 1: A Library of Universal Data Models for All Enterprises Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data Web Data Mining: Exploring Hyperlinks, Contents, and Usage Data (Data-Centric Systems and Applications) Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking Art Models 6: The Female Figure in Shadow and Light (Art Models series) Cut and Make Space Shuttles: 8 Full-Color Models that Fly (Models & Toys) Art Models 7: Dynamic Figures for the Visual Arts (Art Models series) Art Models Ultra: Becca (Art Models series) Art Models 8: Practical Poses for the Working Artist (Art Models series) Sexy Seductive Lingerie & Boudoir Poses 1000 Positions Photographs: Fashion Models, Pin-Ups, Fashion Photographers, Figure Model, Artists & Art Models The Changing Face of Church: Emerging Models of Parish Leadership (Emerging Models of Pastoral Leadership) Unsupervised Machine Learning in Python: Master Data Science and Machine Learning with Cluster Analysis, Gaussian Mixture Models, and Principal Components Analysis Stats: Data and Models (4th Edition) Data, Models, and Decisions: The Fundamentals of Management Science

[Dmca](#)