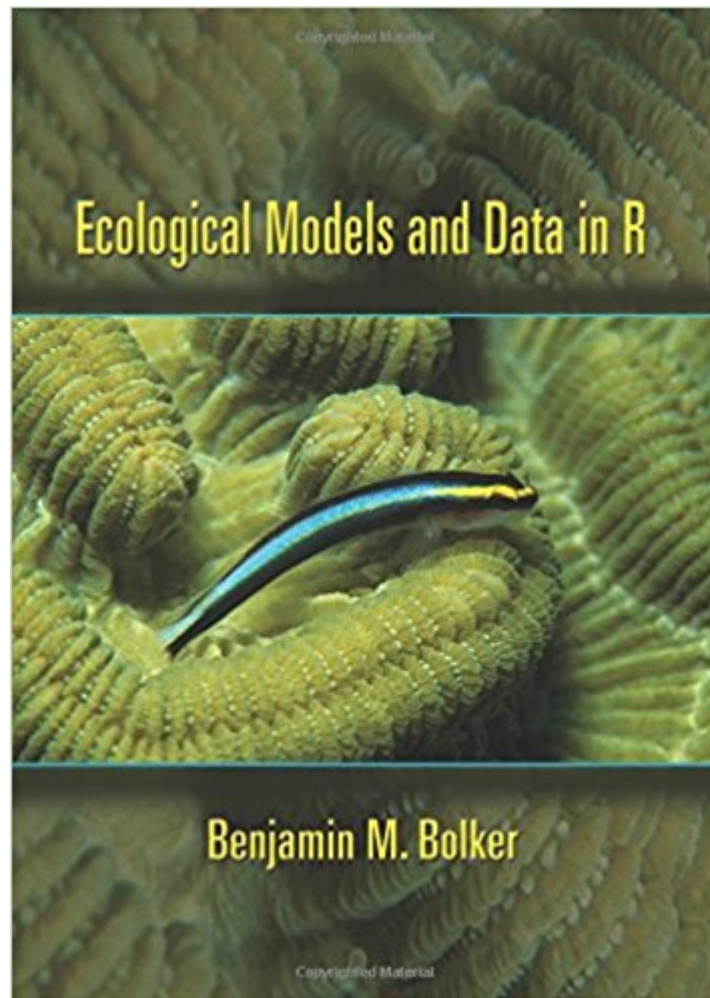


The book was found

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

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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.

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