



Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics)

By Eric Parent, Etienne Rivot

Download now

Read Online ➔

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot

Making statistical modeling and inference more accessible to ecologists and related scientists, **Introduction to Hierarchical Bayesian Modeling for Ecological Data** gives readers a flexible and effective framework to learn about complex ecological processes from various sources of data. It also helps readers get started on building their own statistical models.

The text begins with simple models that progressively become more complex and realistic through explanatory covariates and intermediate hidden states variables. When fitting the models to data, the authors gradually present the concepts and techniques of the Bayesian paradigm from a practical point of view using real case studies. They emphasize how hierarchical Bayesian modeling supports multidimensional models involving complex interactions between parameters and latent variables. Data sets, exercises, and R and WinBUGS codes are available on the authors' website.

This book shows how Bayesian statistical modeling provides an intuitive way to organize data, test ideas, investigate competing hypotheses, and assess degrees of confidence of predictions. It also illustrates how conditional reasoning can dismantle a complex reality into more understandable pieces. As conditional reasoning is intimately linked with Bayesian thinking, considering hierarchical models within the Bayesian setting offers a unified and coherent framework for modeling, estimation, and prediction.

↓ [Download Introduction to Hierarchical Bayesian Modeling for ...pdf](#)

📖 [Read Online Introduction to Hierarchical Bayesian Modeling f ...pdf](#)

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics)

By Eric Parent, Etienne Rivot

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot

Making statistical modeling and inference more accessible to ecologists and related scientists, **Introduction to Hierarchical Bayesian Modeling for Ecological Data** gives readers a flexible and effective framework to learn about complex ecological processes from various sources of data. It also helps readers get started on building their own statistical models.

The text begins with simple models that progressively become more complex and realistic through explanatory covariates and intermediate hidden states variables. When fitting the models to data, the authors gradually present the concepts and techniques of the Bayesian paradigm from a practical point of view using real case studies. They emphasize how hierarchical Bayesian modeling supports multidimensional models involving complex interactions between parameters and latent variables. Data sets, exercises, and R and WinBUGS codes are available on the authors' website.

This book shows how Bayesian statistical modeling provides an intuitive way to organize data, test ideas, investigate competing hypotheses, and assess degrees of confidence of predictions. It also illustrates how conditional reasoning can dismantle a complex reality into more understandable pieces. As conditional reasoning is intimately linked with Bayesian thinking, considering hierarchical models within the Bayesian setting offers a unified and coherent framework for modeling, estimation, and prediction.

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot **Bibliography**

- Sales Rank: #1918662 in Books
- Published on: 2012-08-21
- Original language: English
- Number of items: 1
- Dimensions: .90" h x 6.10" w x 9.30" l, 1.60 pounds
- Binding: Hardcover
- 427 pages

 [Download Introduction to Hierarchical Bayesian Modeling for ...pdf](#)

 [Read Online Introduction to Hierarchical Bayesian Modeling f ...pdf](#)

Editorial Review

Review

"This book is a welcome addition to the Bayesian literature. It is well written and amply illustrates Bayesian methods with practical applications in fisheries management. The programs for data analyses are available on the book's website, allowing users to get their 'hands dirty' and in the process really understand the model construction and the software."

? Subhash R. Lele, *Ecology*, 95(1), 2014

"The book is well written and easy to read, and the material presented deserves a greater exposure in taught statistics courses. I thoroughly recommend the book and believe that the statistical techniques and their application to quantitative fisheries science could ideally complement a short undergraduate course in applied statistics."

? Carl M. O'Brien, *International Statistical Review* (2013), 81

About the Author

Éric Parent is head of the Research Laboratory for Risk Management in Environmental Sciences (Team MORSE) and a professor in applied statistics and probabilistic modeling for environmental engineering at the National Institute for Rural Engineering, Water and Forest Management (ENGREF/AgroParisTech) in Paris, France. Dr. Parent's research encompasses Bayesian theory and applications, with special emphasis on environmental systems modeling.

Étienne Rivot is a researcher in the Fisheries Ecology Laboratory at Agrocampus Ouest in Rennes, France. Dr. Rivot's research focuses on the application of Bayesian statistical modeling for the analysis of ecological data, inference, and predictions.

Users Review

From reader reviews:

Kimberly Wood:

What do you in relation to book? It is not important along? Or just adding material when you want something to explain what yours problem? How about your spare time? Or are you busy man? If you don't have spare time to perform others business, it is make you feel bored faster. And you have spare time? What did you do? Every person has many questions above. The doctor has to answer that question mainly because just their can do which. It said that about book. Book is familiar in each person. Yes, it is right. Because start from on pre-school until university need this specific Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) to read.

Teresa Sullivan:

This Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) book is simply not ordinary book, you have it then the world is in your hands. The benefit you obtain by reading this book is actually information inside this book incredible fresh, you will get info which is getting deeper you actually read a lot of information you will get. This Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) without we know teach the one who examining it become critical in imagining and analyzing. Don't always be worry Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) can bring if you are and not make your tote space or bookshelves' turn into full because you can have it in the lovely laptop even phone. This Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) having great arrangement in word along with layout, so you will not sense uninterested in reading.

Maritza Kress:

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) can be one of your basic books that are good idea. Many of us recommend that straight away because this book has good vocabulary that may increase your knowledge in words, easy to understand, bit entertaining but nonetheless delivering the information. The copy writer giving his/her effort to set every word into joy arrangement in writing Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) but doesn't forget the main position, giving the reader the hottest and based confirm resource facts that maybe you can be considered one of it. This great information can certainly drawn you into completely new stage of crucial imagining.

Virginia Hause:

With this era which is the greater individual or who has ability to do something more are more precious than other. Do you want to become one of it? It is just simple way to have that. What you have to do is just spending your time very little but quite enough to experience a look at some books. On the list of books in the top checklist in your reading list will be Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics). This book which is qualified as The Hungry Inclines can get you closer in growing to be precious person. By looking way up and review this book you can get many advantages.

**Download and Read Online Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot
#KGMX107HYV5**

Read Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot for online ebook

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot books to read online.

Online Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot ebook PDF download

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot Doc

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot Mobipocket

Introduction to Hierarchical Bayesian Modeling for Ecological Data (Chapman & Hall/CRC Applied Environmental Statistics) By Eric Parent, Etienne Rivot EPub