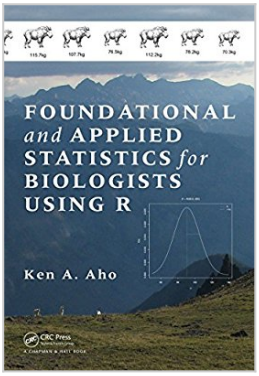

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By Ken A. Aho

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Editorial Review

Review

[Reviewed by Michael Sutherland, *MAA Reviews*, Mathematical Association of America, 9/30/2014]

This is a terrific intermediate level modern applied statistics text forbiologists... or anyone else who is interested in data analysis. It is abig, handsome book of 600 plus pages. That might seem annoyingly large,but it sure does make it easy to do a thorough job of introducing anddetailing the main concepts, the methods, and the pleasures of moderndata analysis. It is a visually pleasing book with good layouts, nicetypefaces and great tables and graphics... and the R code to produce them! A great way for a class to really engage with R graphics.

The Table of Contents shows 7 foundational chapters followed by 4applications chapters. The first chapter on philosophical and historical foundations of science and "knowing" is novel, well done and too brief! But I deeply appreciated its presence, its importance for students andthe opportunity it provides for making connections between fields. Theremaining 6 foundational chapters present the traditional set ofconcepts: probability, density functions, their parameters andstatistics, interval estimation (by sampling, resampling andsimulation), hypothesis testing, sampling design and experimentaldesign. The following application chapters are the classic core ofstatistical models: regression, ANOVA, and contingency counts.

For the complete review go tomaa.org/publications/maa-reviews/foundational-and-applied-statistics-for-biologists-using-r

From the Author
Biologists frequently misuse statistics because they fail tounderstand the foundations on which they are based. The comprehension of foundations leads directly to a deeper appreciation of boththe mechanisms and purpose of statistics.

The text encourages students to construct their own senseof what is being learned through the interactive graphical capabilitiesof R. Statistical software often exacerbate problems in studentcomprehension by providing answerswithout requiring any level of understanding. The open environment ofR, however, reveals processes other software lock away in black boxes.

The book errata, a link to the electronic appendix to the book,"Introduction to R", book code, and other helpful materials can befound at the book's website:
www2.cose.isu.edu/~ahoken/book/

Users Review

From reader reviews:

Nick Zapata:

Do you have something that you like such as book? The publication lovers usually prefer to pick book like comic, brief story and the biggest some may be novel. Now, why not seeking Foundational and Applied

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Dana Vinson:

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David Dozier:

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