Distance Sampling: Methods and Applications (Methods in Statistical Ecology)

S. T. Buckland, E.A. Rexstad, T.A. Marques, C.S. Oedekoven
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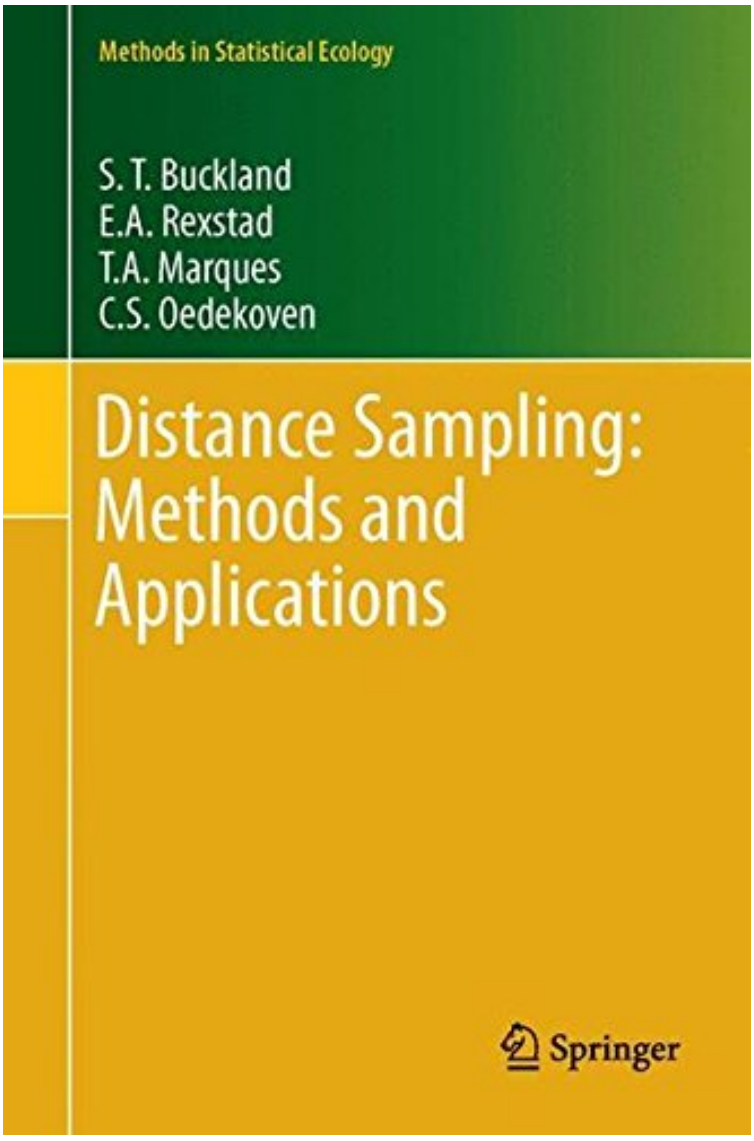

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S. T. Buckland, E.A. Rexstad, T.A. Marques, C.S. Oedekoven : Distance Sampling: Methods and Applications (Methods in Statistical Ecology) before purchasing it in order to gage whether or not it would be worth my time, and all praised Distance Sampling: Methods and Applications (Methods in Statistical Ecology):

In this book, the authors cover the basic methods and advances within distance sampling that are most valuable to practitioners and in ecology more broadly. This is the fourth book dedicated to distance sampling. In the decade since the last book published, there have been a number of new developments. The intervening years have also shown which advances are of most use. This self-contained book covers topics from the previous publications, while also including recent developments in method, software and application.Distance sampling refers to a suite of methods, including line and point transect sampling, in which animal density or abundance is estimated from a sample of distances to detected individuals. The book illustrates these methods through case studies; data sets and computer code are supplied to readers through the books accompanying website. Some of the case studies use the software Distance, while others use R code. The book is in three parts. The first part addresses basic methods, the design of surveys, distance sampling experiments, field methods and data issues. The second part develops a range of modelling approaches for distance sampling data. The third part describes variations in the basic method; discusses special issues that arise when sampling different taxa (songbirds, seabirds, cetaceans, primates, ungulates, butterflies, and plants); considers advances to deal with failures of the key assumptions; and provides a check-list for those conducting surveys.

This new volume by Dr. Buckland and his colleagues at the University of St. Andrews serves as both an introduction to distance sampling for people new to the field as well as a summary of recent developments. I recommend the book as an excellent entry into this fascinating area of estimation and research. The R code alone is worth the purchase price. (Mark Miller, BTO British Trust for Ornithology, bto.org, January, 2016)From the Back CoverIn this book, the authors cover the basic methods and advances within distance sampling that are most valuable to practitioners and in ecology more broadly. This is the fourth book dedicated to distance sampling. In the decade since the last book published, there have been a number of new developments. The intervening years have also shown which advances are of most use. This self-contained book covers topics from the previous publications, whilealso including recentdevelopments in method, software and application. Distance sampling refers to a suite of methods, including line and point transect sampling, in which animal density or abundance is estimated from a sample of distances to detected individuals. The book illustrates these methods through case studies; data sets and computer code are supplied to readers through the books accompanying website. Some of the case studies use the software Distance, while others use R code. The book is in three parts. The first part addresses basic methods, the design of surveys, distance sampling experiments, field methods and data issues. The second part develops a range of modelling approaches for distance sampling data. The third part describes variations in the basic method; discusses special issues that arise when sampling different taxa (songbirds, seabirds, cetaceans, primates, ungulates, butterflies, and plants); considers advances to deal with failures of the key assumptions; and provides a check-list for those conducting surveys.