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Titolo	Distance sampling: methods and applications / / by S. T. Buckland, E.A. Rexstad, T.A. Marques, C.S. Oedekoven
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Soggetti	Statistics Biotic communities Animal ecology Statistics for Life Sciences, Medicine, Health Sciences Community & Population Ecology Animal Ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- The basic methods -- Designing surveys -- Designing distance sampling experiments -- Field methods and data checking -- Modelling detection functions -- Design-based estimation of animal density and abundance -- Model-based distance sampling: two-stage models -- Model-based distance sampling: full likelihood methods -- Variations on a theme -- Taxon-specific issues -- Exchanging assumptions for data -- Summary.
Sommario/riassunto	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 book's 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. .
