

1. Record Nr.	UNINA9910438033803321
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Titolo	EnvStats : An R Package for Environmental Statistics // by Steven P. Millard
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2013
ISBN	1-4614-8456-1
Edizione	[2nd ed. 2013.]
Descrizione fisica	1 online resource (305 p.)
Disciplina	363.7 519.5
Soggetti	Statistics R (Computer program language) Statistics and Computing/Statistics Programs Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
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	Preface -- Chapters -- References -- Index.
Sommario/riassunto	This book describes EnvStats, a new comprehensive R package for environmental statistics. EnvStats and R provide an open-source set of powerful functions for performing graphical and statistical analyses of environmental data, along with an extensive hypertext help system that explains what these methods do, how to use them, and where to find them in the environmental statistics literature. EnvStats also includes numerous built-in data sets from regulatory guidance documents, state and federal databases, and the literature. This book shows how to use EnvStats and R to easily: * Graphically display environmental data and probability distributions * Deal with non-detect (censored) data * Perform and plot results of goodness-of-fit tests * Compare chemical concentrations to a protection standard using confidence intervals for percentiles or parameters * Assess compliance at multiple sites for multiple constituents using simultaneous prediction limits * Test for trend accounting for seasons and serial correlation * Perform power and sample size computations with companion plots for sampling designs based on hypothesis tests, confidence intervals, prediction

intervals, or tolerance intervals \* Perform probabilistic risk assessment using Monte Carlo simulation \* Reproduce specific examples in EPA guidance documents EnvStats combined with other R packages provide the environmental scientist, statistician, researcher, and technician with tools to “get the job done!” Steven P. Millard, Ph.D., is an independent statistical consultant and Senior Biostatistician at the VA Puget Sound Health Care System in Seattle, Washington, and has worked in the field of environmental and health care statistics for over 25 years. He has worked at the US Geological Survey, CH2M Hill, the University of California at Santa Barbara, Saint Martin’s College, Insightful Corporation, and the Cystic Fibrosis Therapeutics Development Network Coordinating Center. In 1990 he developed the training program in S-PLUS while at Statistical Sciences (the creator of S-PLUS), and later developed the S-PLUS module EnvironmentalStats for S-PLUS. He has taught numerous courses in statistics and software to professionals in the United States and Europe, including at the US EPA, Merck, and the National Security Agency. He is the co-author of textbooks on environmental statistics and statistics for drug development. Dr. Millard holds a B.A. in Mathematics from Pomona College, and an M.S. and Ph.D. in Biostatistics from the University of Washington.

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