

Marc Kéry

INTRODUCTION TO WinBUGS FOR ECOLOGISTS

A Bayesian approach to regression, ANOVA,
mixed models and related analyses

Introduction to WinBUGS for Ecologists is an introduction to Bayesian statistical modeling, written for ecologists by an ecologist, using the widely available and free WinBUGS package. Examples are placed within a comprehensive and largely non-mathematical overview of linear, generalized linear (GLM), linear mixed and generalized linear mixed models (GLMM). This book will be of interest to any quantitative scientist who uses regression-type models, especially ecologists, agronomists, geologists, epidemiologists, sociologists, and psychologists. This book:

- Teaches by example rather than by equations only.
- Contains examples based on simulated data along with fully commented R code for the generation of these data sets.
- Fully integrates with program R—all analyses are conducted by calling program WinBUGS from within program R.

Marc Kéry is a population ecologist with the Swiss Ornithological Institute. He is the author of over 40 peer-reviewed journal articles on a wide range of topics, including the analysis of large-scale monitoring programs, demographic population analyses, experimental design for animal and plant surveys, and the population ecology of rare species.



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