

Book Review

Quantitative conservation of vertebrates

Conroy MJ, Carroll JP 2009. Quantitative conservation of vertebrates. Blackwell Publishing. 342 p. ISBN 978-1-4051-8228-7 (pb) and 978-1-4051-9098-5 (hb). Paper, NZ\$94.99.

In the preface, the authors note that this book is intended to be a gentle introduction to quantitative ecology for field biologists, and is not intended as a substitute for more comprehensive books, notably Williams et al.'s (2002) *Analysis and management of animal populations*. Conroy and Carroll have done extremely well in achieving their aim, although readers should be aware that the book focuses at the population level and does not cover other areas of quantitative ecology. The book is less advanced than Williams et al.'s (2002) tour de force, but it is indeed more accessible and more concise, and is accompanied by an extremely clever 'electronic companion' CD that takes the reader through the examples. This electronic companion is also available at http://coopunit.forestry.uga.edu/quant_cons_book/companion/index.htm. The material should be accessible to undergraduates (at least those without pathological fear of equations or computers) and has a lot of overlap with what we cover in our third-year Applied Ecology paper at Massey University. It will also be useful to postgraduate students learning methods of quantitative population ecology. The first section introduces basic concepts of population ecology, modelling, and study design, and the second section introduces methods for analysing occupancy, abundance and survival using standard software such as PRESENCE, DISTANCE and MARK. I think it will be this second section that will prove to be the most valuable, as it provides information to get people going on several types of analysis in a concise format, aided by the electronic companion. The second section also includes a chapter on habitat analysis and species richness that could have been omitted, and the latter chapter only covers situations where population methods (occupancy and closed mark-recapture models) are extrapolated to analysing richness. The third section, on decision analysis, I also thought could have been omitted. This is partly because I think readers would be better to read the equivalent section in Williams et al. (2002), but also because it didn't integrate with the rest of the book as well as it might have. Indeed one failing of the book is that the three sections don't really tie together to show people how they can actually use the analyses of their data to build models to make population management decisions.

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