Preface

Since the publication of Soulé & Wilcox's *Conservation biology: an evolutionary–ecological perspective* in 1980, there has been a steady string of multi-authored works on conservation biology, most notably the other two Soulé books, *Conservation biology: the science of scarcity and diversity* (1986) and *Viable populations for conservation* (1987) and Schonewald-Cox *et al.*'s *Genetics and conservation: a reference for managing wild animal and plant populations* (1983). In addition, there has been a recent surge in the number of conservation biology textbooks available for both undergraduate and post-graduate teaching.

So we might ask ourselves, is there a need for another work in an already overcrowded field, and what makes this volume different from all the others. Many of the earlier works were written at the time that conservation biology was in the process of defining itself and finding its feet as a rigorous scientific discipline. As a result, and as could be expected, many of the individual contributions to these works were written from the perspective of the individual authors' traditional backgrounds in ecology, genetics and resource management and adapted to suit the growing concern of species decline. In addition, the works were very broad in coverage reflecting the very broad scope of conservation biology, ranging from biodiversity loss on large scales through deforestation to impacts on individual species and populations. These works made an invaluable contribution to promoting both an awareness and acceptance of conservation issues both within academia and land-use management agencies and laid the groundwork for much of modern conservation biology as a science.

Over the last 20 years conservation biology has matured, building on the concepts outlined by these early editions, to become a rigorous scientific discipline with its own theoretical framework based on the traditional fields of ecology, genetics and biogeography and applied to small and declining populations. This volume seeks to reflect this new level of maturity. By

focusing on the most ubiquitous and pervasive of all threats to long-term species survival, habitat fragmentation, the book provides the necessary relevance to the bulk of modern conservation efforts. The introductory section provides the theoretical context for explaining and predicting the demographic and genetic consequences of fragmentation. The subsequent two sections present a number of empirical case studies on animal and plant species respectively. These case studies, which integrate ecological, genetic and population biology approaches for assessing impacts of fragmentation, exemplify the development and coming of age of conservation biology as a science. We believe the book will be equally at home in the classroom as on the desk of the professional conservation biologist.

Like conservation biology itself, this book has matured (and grown) since its original concept. The idea for the volume grew out a symposium of the same title held as part of the 12th Annual Meeting of the Society for Conservation Biology in Sydney in 1998. This symposium attracted enormous interest with 11 oral presentations and 20 posters. Many of these contributions form the basis of the empirical studies included in the book. We subsequently decided that these studies needed a theoretical context and thus solicited the contributions included in the introductory section from leading authorities. We have tried to ensure the book is both taxonomically and geographically representative, thus our list of contributors and their study organisms has a global distribution.

The book would not have been possible without the help of our many colleagues. All chapters were peer-reviewed by at least two referees and for this we thank the following: Fred Allendorf, Jon Ballou, Dave Boshier, Dave Coates, Paul Downey, Dick Frankham, Sue Haig, Kringen Henien, Susan Hoebee, Bob Lacy, Gordon Luikart, Georgina Mace, Eric Menges, Neil Mitchell, John Morgan, Phil Nott, David Paetkau, Rod Peakall, Katherine Ralls, Dave Rowell, Kat Shea, Andrea Taylor, Phil Taylor, Pete Thrall, Bob Wayne and Gerry Zegers. Environment Australia provided financial support for the original Society for Conservation Biology symposium. Finally, we thank Alan Crowden and Maria Murphy of Cambridge University Press for their support, encouragement and excellent editorial and production skills.

Geoff Clarke
Andrew Young