

## BOOK REVIEW

# Fundamentals of Conservation Biology

**Malcolm L. Hunter, Jr. and James P. Gibbs, 2006**  
**Blackwell Publishing, Malden, USA. 3rd Edition**  
**ISBN 9781405135450**  
**RRP AUD \$95.95**

GUY WILLIAMS<sup>1</sup>

IN a time of changing social and environmental priorities and pressures, the conservation of biodiversity remains as one of the world's most important issues. In this new edition of *Fundamentals of Conservation Biology*, the authors Malcolm, L. Hunter JR. and James Gibbs provide a valuable introduction to the subject of conservation biology. Although this book is titled a study in the biology of conservation, it maintains a strong focus on the politics, processes and, in particular, the preservation of biodiversity. The four sections into which the book is divided each deal with a separate aspect of biodiversity.

The first section deals with the definitions and the history of biodiversity. It starts with an overview of conservation biology and how it has developed. This moves on to consider the concept of biodiversity at the species, ecosystem and genetic levels. Subsequent chapters deal in turn with each of these concepts investigating parameters and limitations.

Part two focuses on threats to biodiversity. These threats include both natural and human-induced and this section looks at each of the key elements. Chapter six looks at diversity through time including the mass extinctions. Chapter seven looks at the processes behind these change patterns and how they may be analysed. The focus then turns to a human influence with three chapters linked by human involvement in biodiversity loss. Chapter 8 starts with an exploration of ecosystem-level changes and degradation of areas. This is followed by two chapters examining species alteration firstly by removal (unsustainable exploitation) and addition (invasive species) to the environment.

Part three moves on to the protection of biodiversity. Chapter 11 starts this by outlining the main ways to find and protect areas of biodiversity of significance through reserve selection, design and management. Chapter 12, managing ecosystems, starts with the difference between conservation and preservation and then at the more practical side of keeping (and/or restoring) an area in its natural form versus a more modified system. This moves on to the conservation of species and manipulation of populations while the final chapter looks at the more controversial issue of *ex-situ* conservation through zoos and gardens.

Part four looks at the reasons we need parts one to three — human involvement. Informed and up to date discussions on the social, political, and

economic aspects of conservation biology are a much-valued addition and these issues are effectively addressed in their own chapters. Despite the painting of a clear message on the significance of the task to protecting global biodiversity, the text is able to provide a slim glimmer of hope, with solutions being put for each of the major human factors presented in the text.

The fact that this is not a strict conservation biology textbook does not limit its appeal or value to a diversity of students. The book is well presented with a fantastic array of case studies, full-colour figures, photographs, and maps. This new edition has been thoroughly revised with more than 750 new references as well as useful web links to a variety of organisations involved in conservation biology. Hunter and Gibbs have been able to present a clear consistent message surrounding the principles of conservation biology, while providing an introduction to some of the real world solutions that may be needed to save global populations and ecosystems.

---

<sup>1</sup>Guy Williams, 148 Riverview Avenue, Dangar Island, NSW Australia 2083.