

Many conservationists argue that invasive species form one of the most important threats to ecosystems the world over, often spreading quickly through their new environments and jeopardising the conservation of native species. As such, it is important that reliable predictions can be made regarding the effects of new species on particular habitats and ecosystems.

This book provides a critical appraisal of ecological theory using case studies of biological invasions in Australasia. Each chapter is built around a set of 11 central hypotheses from community ecology, which were mainly developed in North American or European contexts. The authors examine the hypotheses in the light of evidence from their particular species, testing their power in explaining the success or failure of invasion, and accepting or rejecting each hypothesis as appropriate. The conclusions have far-reaching consequences for the utility of community ecology, suggesting a rejection of its predictive powers and a positive reappraisal of natural history.

'The editors have brought together 34 scientists with solid field experience to write 18 chapters on specific examples of invasions ... The results are spectacularly interesting for those of us who are interested in natural history, but they also provide a strong warning for ecologists who think time's arrow always points in the direction of theoretical progress and more precise generalisation.'

From the foreword by Charles J. Krebs

This book represents a novel and exciting approach to testing some fundamental ecological ideas such as the niche concept, competition, disturbance, and life history strategy. It does so using invasive alien species, with Australia as both the invaded environment, as well as the source of the invasives. The principal intent of this book is to inform the science of ecology, but it is rich in insights of value to those grappling with the management of this great threat to global biodiversity.

Mark Lonsdale, CSIRO

Herbert H. T. Prins is Professor of Resource Ecology at Wageningen University. He was twice visiting professor with CSIRO and a Foundation Fellow of the Royal Melbourne Institute of Technology.

Iain J. Gordon is Chief Executive and Director of the James Hutton Institute. He worked for CSIRO for 7 years, managing major research portfolios on land management to protect the Great Barrier Reef and conserving Australia's biodiversity.

Cover illustration: the camel is a prime example of an invasive species, here photographed in typical, still undisturbed native Australian desert hummock grassland. In 1860 the camel was introduced into the Australian outback as a beast of burden for pastoralists.

9781107035812 生物科学
分类号: Q1
A
1 库 C0605

CAMBRIDGE
UNIVERSITY PRESS
www.cambridge.org

ISBN 978-1-107-03581-2

9 781107 035812 >