*Economics and Environment* for classes in environmental studies even though the existence of this category illustrates the problem.

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**Applying Nature's Design. Corridors as Strategies for Biodiversity Conservation**

BY ANTHONY B ANDERSON AND CLINTON N JEKINS

x + 231 pp., 22.5 × 15.5 × 1.5 cm, ISBN 0 231 13411 8 paperback, GB£ 22.50, New York, USA/Chichester, UK: Columbia University Press, 2006

What conservation biologist has not heard of corridors as a strategy for connecting fragmented habitats and conserving biological diversity? The surprising fact is that, although hundreds of corridor initiatives are underway, the scientific foundations and empirical evidence that support these initiatives are still weak, controversial and still persistently debated in the scientific literature. *Applying Nature's Design* makes this clear, but then goes on with very practical advice on how to design and implement the corridors, the scientific basis of which is still uncertain.

Intended for conservation practitioners and policy makers, *Applying Nature's Design* starts with an overview of the book where an operational definition of corridors is offered: 'spaces in which connectivity between species, ecosystem, and ecological processes is mediated or restored at various scales'. In the second chapter the authors review the conceptual foundations of corridors, and provide a synthetic summary of the theory of island biogeography, metapopulation theory and landscape ecology. This chapter also presents the on-going debate about corridors, regarding the purported functions of corridors, their positive and negative aspects and their cost effectiveness. Are corridors effective in their intent to provide connectivity? After reviewing 32 studies the authors conclude that less than a third of these studies provide convincing evidence that they do.

In spite of all the uncertainties related to corridors, the book turns to the more applied aspects of corridor design and implementation, and in Chapter three examines issues of corridor design. The authors maintain that in highly disturbed landscapes the best approach is linear corridors, while in areas that are still very well preserved a landscape corridor approach is better, and planning should focus on maintaining those areas of connectivity (i.e. protecting them from development of other activities). Chapter 4 examines factors that affect corridor implementation, including their management, obstacles and incentives for implementation and issues of governance. This chapter draws heavily from the eight case studies that are presented in the final chapter. More than half of the book is taken up by an in-depth examination of these eight case studies.

The main contribution of this book is in fact the eight case studies since they illustrate the complexities of conservation in fragmented habitats and examine the interactions between the natural and the social. Anderson and Jenkins state that corridors require conservation practitioners to look beyond core-protected areas and address a wider range of issues affecting resource-use decisions by people. However rather than thinking of ways in which the agricultural matrix can be managed to enhance connectivity (such as agroforestry or organic agriculture), they think about ways to convert production areas into natural vegetation, or restore narrow strips of land to form corridors. They undermine the importance of the agricultural matrix as a habitat for biodiversity and as a habitat that can provide connectivity between fragments of natural vegetation.

Furthermore, there is a detectable large charismatic megafauna bias in the book (with a fetish for top carnivores). Anderson and Jenkins justify this by arguing that the conservation of focal species (as well as umbrella, flagship and keystone species) presumably results in the conservation of many other species. But few actual data are provided to demonstrate that.

The book is well organized and very clearly written. Each chapter has a clear description of its content and in many cases the authors present information in the form of bullet points, with frequent reference to the case studies for which the concept applies.

Corridors make theoretical sense only when the focus is on the conservation of large vertebrates (such as 'charismatic megafauna' or 'flagship species'). The theoretical foundations break down when considering the millions of small organisms that constitute most of the biodiversity in the world. There is no debate that habitat fragmentation is one of the major drivers of biodiversity loss. Neither is there a debate about the need for connectivity between fragments. What is debatable is whether corridors are effective at all, or in the cases where they are, whether they are the most effective (including cost effective) ways for increasing connectivity. This debate is not entertained in this book. In the end, an excessive focus on corridors may have the unintended consequence of providing cover, or worse, offering permission for destruction of the rest of the landscape.

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**Biodiversity and Conservation (Second edition)**

BY MICHAEL J JEFFRIES

xvi + 236 pp., 54 figs, 27 plates and 24 tables, 24.5 × 17 × 1 cm, ISBN 0 415 34300 3 paperback, GB£ 18.50, ISBN 0 415 34299 6 hardcover, price unknown, Oxford, UK/New York, USA: Routledge 2006

This introductory book brings together the natural sciences and the social sciences that underpin understanding biodiversity, the biodiversity crisis and conservation. It concentrates on ecology but pays sufficient attention to legislation, international treaties and economics to emphasize the point that conservation is not only action-driven, but is also a major societal undertaking supported by governmental policies. From the organization of the text in short sections, the short sentences and the layout, it is clear that the book is aimed at undergraduate level. Routledge has a reputation to maintain concerning the market of introductory texts, and the fact that the present book is a second edition proves that Jeffries has written the right book.

The general appearance of the book is satisfactory. The layout is a bit crude with unattractive chapter headings, and the photographs are a bit bland with unclear credits. However, the drawings, graphs and tables read well and are clear. The legibility of the typeface is good, and I found very few typographical errors indeed. The section 'further reading' is sufficient for an introductory text, and the index is quite useful. There are 28 boxes (more than five per chapter); these break the text up sufficiently well to maintain the reader's attention span.

The author should be congratulated first with writing such a reasonable well-balanced and integrative text. I think the next edition of the book should pay more attention to policy development and social sciences without reducing the amount of ecology. I think the author has underestimated the importance of the Convention on Biological Diversity (CBD), and especially what it has achieved. Together with many others, I have had the honour and pleasure to help develop the principles for the Ecosystem Approach and those for the Sustainable Use of Biodiversity. I think these CBD texts are immensely important for the development of national policies that will shape the future of conservation to a much larger extent than the author gives credit for. I also think that the author has a blind spot for the enormous importance of the development of policies and rulings by the European Commission. The Commission's Habitats directive, Bird directive and Natura 2000 all shape conservation in Europe and many of the students that form a part of the target audience of the book will remain quite ignorant of this because the author did not treat it. A next edition of this important book should also pay more attention to the economics of conservation. The discussion about Campfire in Zimbabwe is, to my taste, too negative, and there are many more examples that if governments are only weakly upholding their own protection legislation, the practice of consumptive use can assist conservation.

If the author and his publisher are contemplating a third edition (which I recommend), I recommend they should take a more positive attitude towards the role of the media, especially TV. I found Box 1 ('The nature of television') unnecessarily negative, while I missed mention of the internet, yet I was happy to see in the bibliography sections on 'Natural history filmmaking' and 'Websites'.

Of course it is much easier to criticize a book then to write one. Here the material is generally well-selected and well-organized. The statements of fact that I could check are, I think accurate. However, some statements are curious and should either be left out or fleshed out. For example, where Jeffries (p. 27) writes that Steven Jay 'Gould's chancy, contingent, accident-prone vision can be interpreted as a Marxist analysis of the history of life', I think he is wrong; Gould provided us with an excellent and very modern analysis of the history of life that may have been inspired by Marxism but it is not a Marxist analysis. And his vision was definitely not 'accident-prone'. Jeffries (p. 19) suggests also that the concept of 'functional groups' is very new but, in reality, it is decades old. He seems to believe (p. 128) too much that on continents also there was something of a 'Pleistocene overkill' by primitive man. Yes, there is sufficient evidence that our ancestors could wipe out local faunas on islands, but the lack of evidence from Africa, Europe and Asia, and the very recent debate about the evidence from Australia, necessitates a rewriting of that section, I think.

Another theme in the book that can be strengthened is on the 'biodiversity crisis'. Jeffries introduces the concept well, but I am convinced that he should have given more data on which students and lecturers could rely for the exact number of species that went extinct either on continents or on islands. At present, much concern about the biodiversity crisis is based on a small number of experiments (like the [in]famous 30 million species of arthropod of Terry Ewin, well-explained in Box 12) and Bob May's 'crude extrapolation'. However, when students are asked 'How many species of vertebrate have been driven to extinction in your country?' (Discussion question 1, p. 165), then the present text gives insufficient data or evidence for students to be able to answer the question. This theme is of great importance; it lies at the heart of conservation.

Do I like the book? The answer is a straightforward 'yes'. Is it a good book? Again, the answer is a forthright 'yes'. The book can be further improved upon, and, as stated before, this second edition is an excellent introductory text on biodiversity, its conservation, and the interdisciplinary knowledge that a student should acquire if she or he is going to make a useful contribution to one of the major societal challenges we are facing, namely, 'How are we going to stop further extinction of taxa?'

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**Globalization and New Geographies of Conservation**

EDITED BY KARL ZIMMERER

x + 357 pp., 23 × 15.5 × 2 cm, ISBN 0 226 98344 7 paperback, US$ 35.00, Chicago, USA/London, UK: The University of Chicago Press, 2006

*Globalization and New Geographies of Conservation* (hereafter *Globalization*) brings together 13 essays from a 2002 conference in Madison (Wisconsin) entitled 'Spaces of Hope?: Conservation, Environment, and Development amid Global Change'. The essays focus on the recent expansion of conservation practices and institutions in disparate settings throughout Asia, Africa and Latin America. An introductory essay by Zimmerer outlines the changing substantive emphases of the worldwide conservation movement during the past 30 years, with particular attention to a 'third wave' of conservation activities that has focused on the sustainable use of natural resources. A number of the essays provide detailed studies of changing conservation practices in particular places, including certification and coffee cultivation in southern Mexico (Mutersbaugh), beekeeping in the Brazilian Amazon (Brown), gardening and agrobiodiversity in Santarem, Brazil (WinklerPrins), and seed exchange in the Peruvian Andes (Zimmerer). Two essays address methodological issues. Read provides a useful review of changing remote sensing instruments and their possible uses. Turner discusses the use of remote sensing to chart changes in the Sahel and the impact of the technologies on conservation efforts in the region. A cluster of essays looks at transnational and national conservation efforts in the Mekong River basin (Sneddon), the tropical Andes (Sierra) and Peru (Young & Rodriguez). A final set of essays examines the impact of devolution on conservation efforts in Burkina Faso (Gray), Guatemala (Sundberg) and Inner Mongolia (Jiang). The quality of the essays is quite high. Almost uniformly, the authors characterize the people and places under study in sharp