

Corridor Ecology: The Science and Practice of Linking Landscapes for Biodiversity Conservation by Jodi A. Hilty, William Z. Lidicker, Jr & Adina M. Merenlender (2006), xix + 324 pp., Island Press, Washington, DC, USA. ISBN 1559630477 (hbk), USD 60.00; ISBN 1559630965 (pbk), USD 30.00.

This book is a fascinating illustration of practical conservation biology, mostly in North America, with examples drawn from various projects relating to fragmentation, isolation, and conservation problems.

The book is divided into three parts. In the first three chapters Hilty and colleagues review the reasons for maintaining the connectivity of fragmented habitats. They discuss the impact of human activities on natural environments, and criticize government policies on conservation. They emphasize the needs for corridors to reconnect fragmented habitats. The reader is reminded of the theory of island biogeography, using examples from mammals to insects to explain the effects of isolation (Chapter 3).

Part two lists various types of corridors, in different landscapes, and shows their importance for wide-ranging low density animals. They define the types and aims of corridors, and the benefits of corridors for biota and people (Chapter 4). The history of landscape ecology terminology, the concept and functions of matrix, the components of landscape ecology, edges and edge effects, effects on population dynamics, and habitats for exotics are discussed in Chapter 5. Potential disadvantages and the causes of failure are discussed in Chapter 6, using the example of the grizzly bear conservation project in Alberta, where the grizzly did not use the corridor and killed people. They discuss the impact of edge effects, the corridor as a biotic filter, their potential negative effects as pathways for invasion by exotic species, effects on animal social behaviour, genetic impacts, the conflict of scientific objectives, and lastly the economic impacts of corridors.

The third part of the book discusses corridor design, planning, and implementation. In Chapter 7 they discuss the appropriate width of a corridor, keystone and umbrella species, indicator species, specialist species, and vulnerable species, and the quality of habitat within an ecological corridor. A specialist species needs a wider corridor and larger stepping stones, a gap within a corridor has different impacts on different species, and the needs of species vary from water for frogs to an underpass or overpass for large mammals. These conditions remind us that we need to consider what is our target species before designing a corridor.

In Chapter 8 the authors emphasize the importance of collaborative management in corridor planning,

including spatial and temporal scales, and tools such as geographic information systems. They provide systematic steps for identifying, prioritizing, and assessing the location for a corridor, including cost, vulnerability, and future directions. No single taxon can by itself reflect the health of an ecosystem; an approach to selecting indicator taxa would better expose the changes in these ecosystems. In the final chapter, they discuss how to protect and restore corridors, providing examples from different scales of corridor projects, from regional community-based conservation projects to pan-national networks, and they underline the effect of roads, and how to minimize the negative impact of a highway on animals.

The great value of this book lies in the varied examples and in the models, which show the problems and conditions of corridor establishment and the factors related to designing a corridor. The book will inspire the creation of corridors, and explains how to design one and how to take greater advantage of it. Finally, the book will challenge scholars to be critical and to find improved approaches to conservation projects.

Anton Nurcahyo

Australian National University, Canberra, ACT 0200, Australia

E-mail u4330674@anu.edu.au

The following publications have been received at the Editorial Office and may be of interest to readers:

Chemical Ecology of Vertebrates by D. Müller-Schwarze (2006), xiv + 563 pp., Cambridge University Press, Cambridge, UK. ISBN 0521363772 (hbk), GBP 75.00.

Gaining Ground: In Pursuit of Ecological Sustainability by David M. Lavigne (2006), xiv + 425 pp., IFAW, Guelph, Canada. ISBN 0969817177 (pbk), GBP 30.00.

Conservation and the Genetics of Populations by Fred W. Allendorf & Gordon Luikart (2006), xix + 642 pp., Blackwell Publishing, Oxford, UK. ISBN 1405121459 (pbk), GBP 34.99.

Pesticide Selectivity, Health and the Environment by W. R. Carlile (2006), xvi + 310 pp., Cambridge University Press, Cambridge, UK. ISBN 0521010810 (pbk), GBP 35.00/USD 65.00; ISBN 0521811945 (hbk), GBP 70.00/USD 125.00.

Giant Pandas: Biology, Veterinary Medicine and Management by David E. Wildt, Anju Zhang, Hemin Zhang, Donald L. Janssen & Susie Ellis (2006), xxiv + 586 pp., Cambridge University Press, Cambridge, UK. ISBN 0521832950 (hbk), GBP 65.00/USD 120.00.