Publications

Killing Our Oceans: Dealing with the Mass Extinction of Marine Life by John Charles Kunich (2006), vi + 245 pp., Praeger Publishers, Westport, USA. ISBN 0275988783 (hbk), GBP 28.99.

Kunich, an associate professor of law in the US, provides a stimulating and worthwhile read on marine conservation. The book is refreshing in that it promotes an innovative legal approach to stemming the loss of marine biodiversity. It is also highly readable and laced with lively metaphors. The book does contain some assertions with which not everyone, including this reviewer, would necessarily agree; but the law in this field often doesn't permit a unified interpretation and, in addition, some generalization in the interests of readability and brevity was probably necessary.

Despite its clear attributes, the book is not without its shortcomings. In terms of style, a principal difficulty is that the book uses endnotes rather than footnotes. Those notes contain some important points and yet are not available without page turning and searching. So my plea to the author and/or the publisher would be to use footnotes in any future edition, or to at least use a header in the Notes section that includes the chapter number in question.

Chapter 1 sees the current decline in marine biodiversity as part of a sixth mass extinction on Earth. It examines the diversity of marine life and some of the major threats, and promotes the conservation of biodiversity 'hotspots'. The chapter is a good introduction to the problem. However, in its exploration of diversity, it is surprisingly lacking in references to particular marine species. A few boxes setting out some examples would probably have sufficed to bring the generic descriptions alive.

Hotspots are described as 'relatively compact regions' (p. 18), and some examples of coral reef hotspots, such as the Philippines and the Northern Indian Ocean (p. 42), provide some indication of how big such sites could be. That raises the question of what proportion of the world's oceans would need to be protected to address not just coral reef hotspots but the other types of hotspot too. Despite the inevitable scientific uncertainty, some consideration of that figure would have been interesting as would some discussion about the need for adaptive management of hotspots in response to climate change.

Chapter 2 describes the effects and shortcomings of several global treaties, including the 1982 United Nations Convention on the Law of the Sea, with regard to the conservation of marine biodiversity. There are indeed many shortcomings in international law, but sometimes Kunich seems unnecessarily negative in that regard. For example, at p. 58 he states that: '… any extension of a nation's environmental policies beyond its own territory would need to comply with the General Agreement on Tariffs and Trade (GATT) … This poses some formidable obstacles …'. No further discussion of the GATT follows in the chapter, and the lay reader would be excused for thinking that not much could be done, in economic terms, to enforce conservation laws. Yet, for example, some regional fisheries management organizations have adopted trade-related measures to enforce high seas conservation rules without any challenge to such measures having been brought under the GATT to date.

Chapter 3 examines relevant federal laws of the US and Australia as 'two relatively encouraging success stories' for marine biodiversity conservation (p. 95). Some reference to the US Lacey Act, in view of its application to curbing illegal fishing globally, would been have been useful here. For a second edition, Kunich might find it interesting to also consider relevant laws of the European Community, especially in view of the Community's international nature, its global footprint and the power of the European Court of Justice to impose financial penalties on Community Member States.

In Chapter 4 Kunich introduces his proposed legal solution to 'our mass extinction crisis' (p. 121) as an alternative to merely tweaking existing international law and domestic laws. He proposes a US federal statute that would, in short, (a) establish a mechanism for selecting, on a global basis, biodiversity hotspots meriting protection and (b) provide financial inducements to States that took verifiable and appropriate actions to protect those hotspots. Kunich anticipates that the focus of the statute would be on hotspots beyond the territorial sea, and cites the US's existing Tropical Forest Conservation Act as evidence of the country's recognition of the need for this kind of approach. The book's final chapter, Chapter 5, is a plea for action.

The proposal in Chapter 4 is of course contentious in that it entails one State shouldering the financial burden

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and, in turn, having involvement in other States' affairs. Kunich is candid about that, but emphasises the stakes as well as the purely incentive-based nature of the proposal and the role of the State receiving the inducement. In my view, Chapter 4 would have benefited from some additional analysis on matters such as (a) the number of coastal and flag States that might fall within the scope of the statute, bearing in mind in particular the use of flags of convenience by a signifant proportion of the world's fishing fleet, (b) the thorny issue of access to genetic resources, the value of such resources being presented as an important justification for the statute, and (c) the potential for complementarity with international funding mechanisms.

In conclusion, I would recommend this book to professionals concerned with marine nature conservation, as well as to the lay reader. It is not without its shortcomings, but it puts forward an interesting proposal that certainly deserves further debate.

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Conservation Across Borders: Biodiversity in an Interdependent World by Charles C. Chester (2006), xv + 262 pp., Island Press, Washington, DC, USA. ISBN 1559636106 (hbk), GBP 41.95; ISBN 1559636114 (pbk), GBP 20.95.

Alhough this book is rich in both its level of detail and general information content, the title *Conservation Across Borders: Biodiversity in an Interdependent World* is slightly misleading on two accounts. Firstly, rather than addressing the general theme of conservation across borders, the book is really a carefully crafted examination of two case studies: the International Sonoran Desert Alliance (ISDA) involving Mexico and the US, and the Yellowstone to Yukon Biodiversity Strategy (Y2Y) established between Canada and the US. The fact that the US plays a fundamental role in both of them serves to illustrate the idiosyncrasies of people and institutions devoted to international conservation in this country, but creates a context that may not be readily applicable to other situations. Secondly, the book is not about biodiversity but about institutions. There is no question that many, if not most, of the challenges faced by biodiversity conservation practitioners are institutional, and that a key objective of ISDA and Y2K is to conserve biodiversity. But Chester's analysis explicitly avoids going too deeply into whether biodiversity conservation has been achieved, and focuses on the long and difficult process faced by private citizens that '… concerned about what was happening to the larger landscape … [developed the means] to understand and cooperate with each other beyond the confines of governmental approval and protocol' (p. 234). A title such as *Conservation Across Borders: Institutions in an Interdependent World*, would have been more accurate.

An expanded and updated version of Chester's PhD thesis research, *Conservation Across Borders: Biodiversity in an Interdependent World* is comprised of five chapters. In the first the author argues that as political boundaries are often arbitrary (particularly evident by the straight lines that make up much of the US borders with Canada and Mexico) biodiversity conservation is inherently international, or at the very least requires the cooperation of people on both sides of the line (note that this applies equally to inter- and intranational cooperation). This point is made abundantly clear by Chester in the introductory section of the book, where he cites Willem van Riet's (Peace Parks Foundation) eloquent statement '[p]olitical boundaries are the scars of history'.

The second chapter is a brief, general introduction to the theme of transborder conservation, focused mainly on the issues that are especially relevant to the case studies presented in the two chapters that follow. After pondering 'what does transborder conservation mean?', Chester traces the historical origin of transborder protected areas to the management of shared natural resources such as water and migratory species. He identifies peace parks as one of the tools devised by diplomats and conservationists to resolve border conflicts: by setting aside an area along the border with the objective of biodiversity conservation the conflict is resolved and a greater good is achieved. As of 2003, 169 transborder protected areas had been identified in 113 countries, representing about one tenth of the total area of all protected areas in the world (p. 24). The chapter concludes with the history and a review of UNESCO's Man and the Biosphere Programme, which spearheaded biosphere reserves as sites where nature conservation, scientific research and sustainable development are given equal importance. The biosphere reserve concept was clearly influential either explicitly or implicitly in both ISDA and Y2Y.

The third and fourth chapters present the ISDA and Y2Y case studies, respectively. Although both initiatives share the broad mission of protecting the regions' biological and cultural riches, ISDA explicitly focused on 'building and environmentally sound regional economy, with biodiversity conservation as one component' (p. 4). Though Y2Y partners eventually realized that socioeconomics was key, their initial thrust was biodiversity conservation. As one might expect, a consequence of the vision of the designers of ISDA is that their trajectory was a lot messier than Y2Y's, and a lot more interesting (I have the feeling that Chester would agree with this). Changing governmental

positions, for example, underline the importance of timing in international negotiations. In the mid 1980s, although the Mexican and US governments had signed agreements to cooperate in the protection of the transboundary area, the initiative died out because the Mexican government perceived that transboundary areas allowed the US to maintain control over the border. In the mid 1990s, after Mexico had become willing to consider a binational biosphere reserve, the US began to lose interest as part of the general 'distrust of international cooperative conservation initiatives' (p. 111), particularly those emanating from the United Nations. However, despite its numerous challenges and contradictions, ISDA succeeded in influencing the designation of two biosphere reserves, and promoting a level of cross-border interest in cooperation that did not exist before.

The path followed by Y2Y was comparatively smooth. The border between Canada and the US is among the most porous in the world, with free movement of goods and people. Alhough Chester emphasizes the ways in which the politics of these two countries differ, from a global point of view they are infinitely more similar than most. Therefore, the challenge faced by Y2Y seemed more about how to design a large institution with many participants than to overcome major conceptual or ideological barriers. Over the past decade or so Y2Y has established itself as a well-known brand name for the conservation of naturalness in north-western North America.

The final chapter attempts to assess whether ISDA and Y2Y were successful or not. Although Chester clearly believes that both initiatives have significantly helped advance the conservation cause in their respective regions, he finds it difficult to substantiate this claim through conventional evaluation methods. He asks 'what does effectiveness mean?', and then tries not very convincingly to assess ISDA and Y2Y according to a series of different variables and comparative analyses. But in the end, Chester is confronted with the dilemma posed by himself that 'in the two case studies effective cooperation did not always lead to effective conservation' (p. 219). As the story has not ended, however, perhaps the most significant conservation achievements of ISDA and Y2Y are yet to come.

For those interested in the genesis of ISDA and Y2Y, *Conservation Across Borders: Biodiversity in an Interdependent World* is required reading. They will get a clear sense of how the initiatives got to where they are and perhaps more importantly, who were the principal people and ideas behind them. For those interested in the broader theme of conservation across borders, 'ISDA and Y2Y stand as useful models – or at least practical lessons – for future approaches' (p. 234). But one thing is certain: for any conservation practitioner it is valuable to find people like Chester who devote a significant portion of their time and intellect carefully documenting, synthesizing, and contrasting major conservation efforts around the world. They help to keep them alive and continue to grow.

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

Introduction to Computer-Intensive Methods of Data Analysis in Biology by Derek A. Roff (2006), vii + 368 pp., Cambridge University Press, Cambridge, UK. ISBN 0521608651 (pbk), GBP 35.00/USD 65.00; ISBN 0521846286 (hbk) GBP 70.00/USD 125.00.

Large Herbivore Ecology, Ecosystem Dynamics and Conservation by Kjell Danell, Roger Bergström, Patrick Duncan & Jon Pastor (eds) (2006), xiii + 506 pp., Cambridge University Press, Cambridge, UK. ISBN 0521536871 (pbk), GBP 38.00/USD 65.00; ISBN 0521830052 (hbk) GBP 75.00/USD 130.00.

Plants: Evolution and Diversity by Martin J. Ingrouille & Bill Eddie (2006), xiv + 440 pp., Cambridge University Press, Cambridge, UK. ISBN 0521794331 (pbk) GBP 29.00/USD 55.00.

The Theoretical Biologist's Toolbox: Quantitative Methods for Ecology and Evolutionary Biology by Marc Mangel (2006), xiv + 375 pp., Cambridge University Press, Cambridge, UK. ISBN 0521537487 (pbk), GBP 27.99.

Ecological Census Techniques: A Handbook, 2nd edition by William J. Sutherland (2006), xv + 432 pp., Cambridge University Press, Cambridge, UK. ISBN 0521606365 (pbk), GBP 29.99.