

BOOK REVIEW

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Ecosystem-Based Management for the Oceans

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Island Press, 2009

This book helpfully defines ecosystem based management (EBM) as 'an integrated approach to management that considers the entire ecosystem, including humans. [Its goal] is to maintain an ecosystem in a healthy, productive and resilient condition so it can provide the services humans want and need'. Given the current level of interest in such integrated approaches 'a comprehensive synthesis of the considerable knowledge needed to implement EBM' is certainly necessary, and something which this book aims to provide. The contents reflect the interdisciplinary nature of this knowledge with three main sections covering: (1) the main ecological, sociological and economic concepts underlying EBM; (2) ways of using these concepts in practice; and (3) examples of the partial implementation of EBM. There are also opening and closing sections where the appropriate introduction and conclusions ('Why EBM?' and 'Ways forward') are accompanied by the very practical 'What do managers need?' and the less practical 'Toward a new ethic for the oceans'. The material is extensively illustrated in black and white, with summary boxes and tables.

The book is generally well-informed and extensive in its coverage. Nonetheless it falls short of being comprehensive, as evidenced by the fact that the narrower sub-topic of 'The ecosystem approach to fisheries' merits a whole volume (Bianchi & Skjoldal 2009). The book does not fully reflect the global nature of its subject. The expertise and the case studies which it draws on come 'particularly but not exclusively from the coasts and oceans of North America, to offer lessons broadly applicable around the world'. This approach misses the benefits of a two-way exchange. For example, national attempts to implement the EU's Marine Strategy Directive (briefly covered in chapter 16) such as the UK's Marine Bill (not mentioned) provide examples of legislative instruments which aim to resolve some of the problems created by the complex patchwork of separately-managed human activities and interacting layers of geographically-constrained legislation that affect coastal marine ecosystems, such as Puget Sound (chapter 12). This is perhaps an appropriate point to comment that statements like 'some 279 Member States [support the EU's Marine Strategy]' are unlikely to be accurate.

The book's aims include 'address[ing] the key challenges facing scientists and managers'. It is a survey of current status and

future challenges rather than a technical handbook. This current status can be summarized as a solid foundation of background knowledge and justification and a pressing need to move ahead with implementation. Those hoping for a formula to guarantee outcomes will be disappointed. EBM is about being prepared for surprises and accepting trade-offs. The material is more concerned with concepts and illustration than with technical detail. As such it is accessible to students and interested stakeholders, as well as a useful resource for scientists and managers, but these readers will need to pursue the details elsewhere. Interestingly some of the most concrete measures that it does identify concern steps toward communication and cooperation within communities of diverse stakeholders.

The focus on the human aspect of ecosystems raises some topics which are rare in the scientific literature. Several contributors make the case that the value of ecosystems includes their role as spiritual foci. The chapter on ethics is certainly informative and thought-provoking. For example, it is true that there are non-scientific 'ways of knowing'. It is also true that, in some moral systems, motivations are more important than means or ends. However, practitioners must still achieve tangible ends through acceptable means. These practitioners should certainly account for the diversity of human needs and objectives. Unfortunately calling for a new ethical framework recognizing the 'morally significant vital needs' of every part of the ecosystem does not seem to move us any closer to implementation, nor does comparing the central argument for EBM (healthy ecosystems provide services which meet human wants and needs) to those advocating good care of slaves.

The stylistic lurches between emotive and technical are sometimes difficult and it might be impossible to accept every argument. Nonetheless, this book is timely and mainly well-organized, well-researched and well-reasoned and is therefore welcome and necessary reading for anyone interested in marine EBM.

Reference

Bianchi, G. & Skjoldal, H.R., eds (2009) *The Ecosystem Approach to Fisheries*. New York, NY, USA: Oxford University Press.

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