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BOOK REVIEWS

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The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations. Edited by P. Kumar. London and Washington D.C.: Earthscan (2010), pp. 401, £49.99. ISBN 978-1-84971-212-5.

This multi-authored book provides 'a comprehensive assessment of the fundamental ecological and economic principles of measuring and valuing ecosystem services and biodiversity'. Its primary purpose is to contribute to the understanding of economic significance of biodiversity and ecosystem resilience for human well-being. In order to achieve this, existing frameworks' linking ecology and economics are reviewed before a revised conceptual framework is presented. Each subsequent chapter is then linked to an aspect of this framework. The discussions within these chapters cover a broad range of issues, which are first introduced and then critically evaluated. The emphasis is on the challenges that occur within biodiversity/ecosystem service valuation encompassing the dynamics of ecology, the merits of biophysical indicators, the socio-cultural context within which valuation takes place and the wider issues associated with valuation, including ethical considerations. The final chapter attempts to bring the material together within a summary synthesis, highlighting the issues/challenges alongside recommendations for further work.

Each chapter has its own contents page and key messages, an attempt to give the impression of a coherent whole, but which in practice adds little. They are not particularly useful if the chapter itself has not been read. It is not a text for those looking to skim across some key points in order to gain an overview introduction to the subject matter. Nevertheless, the value of the text is within the detailed content of individual chapters providing an excellent resource for those, whether academic or practitioner, prepared to read a whole chapter or chapters.

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Vermiculture Technology. Earthworms, Organic Wastes and Environmental Management. By C. A. Edwards, N. Q. Aarancon and R. Sherman. Boca Raton, FL, USA: CRC Press (2010), pp. 601, £76.99. ISBN 978-1-4398-0987-7.

This book brings together 35 contributions on a wide range of aspects of vermiculture from different parts of the world. Interest in this subject has increased in recent years, because the drive for recycling has become a more important subject due to increase in world population, and newly introduced legislation, e.g. stopping the deposition of slurry at sea.

The development and commercialisation of the use of earthworms to break down organic waste over the last 50 years has been documented. The different techniques used in vermiculture and their advantages of both composting and vermicomposting are highlighted. The topics covered include the choice and discovery of new species used for vermicomposting and the interactions between earthworms and microbes in the decomposition process. There are three chapters on the pros and cons of different vermicomposting systems followed by other chapters on the use of vermicompost (or solutions derived from it) as soil amendments to suppress pathogens and pests of both plants and humans. There are also chapters concerned with how earthworms can accumulate heavy metals and how they can improve soil quality and crop yields. The potential use of earthworms in the pharmaceutical industry as well as animal feeds is also highlighted.

The last 11 chapters relate to advances in vermiculture in different parts of the world.