

Book review

Mycology in sustainable development: expanding concepts, vanishing borders. M. E. Palm, I. H. Chapela (eds) Parkway Publishers Inc., Boone, N.C., USA, 1997. 305 pp. ISBN: 1-887905-01-4. \$40.00

This book results from a workshop held in 1995 during the Mycological Society of America annual meeting in conjunction with the American Institute of Biological Sciences. The workshop provided a forum for strengthening North American research links and several chapters deal exclusively with Mexican situations. A total of 14 chapters is arranged in four sections. Section one is entitled 'Non-timber forest products' although it deals only with edible wild mushrooms. Four chapters review the development, problems, regulations and social pros and cons of harvesting these important food sources. The authors deal mainly with the North American situation and as a consequence the information strongly focusses on the ectomycorrhizal pine mushroom (*Tricholoma magnivelare*). It is interesting to note that the value of this mushroom harvest over the life of the timber rotation can be higher than the one-time harvest of the standing trees (Pilz & Molina, Chap.3).

The second section concerns 'Enlightened management: inventory and monitoring of fungal diversity'. Again, these chapters are targeted at macromycetes occurring in the U.S.A. and México. The final chapter appears out-of-context as it is a mathematically detailed assessment of similarity indices for undesirable properties, and contains a new proposal for a similarity index based on cost functions. It is unlikely that readers wishing to find such information will look in a book such as this, as the topic is by no means exclusive to mycology in sustainable development.

Section three refers to 'Environmentally friendly technologies' and contains the bulk of the mycorrhizal information. Edith Allen et al. (Chap. 9) begin with a discussion of how and when mycorrhizal fungi can be used to restore, reclaim or rehabilitate marginal or derelict land, whilst Varela & Estrada-Torres describe the diversity and potential use of mycorrhizae for sustainable development in México. These are followed by two chapters on biological control: the first is concerned with fungal biocontrol of weeds, the second is an assessment of two models for the development of fungal biocontrol agents.

The final section of the book deals with 'Diversification of markets and novel fungal products' and considers only two topics: The cultivation of edible fungi as a sustainable alternative in the tropics (Sánchez Vásquez et al.) and a brief review of bioprospecting (Chapela).

In summary, I was disappointed with the content of the book, not so much with individual chapters but more with the book title and the aspirations of the various sections. A discussion of the importance of mycology in sustainable development should be more wide-ranging than that in this particular volume and should be less parochial. For mycorrhizal workers, the book contains little that has not been reviewed at length elsewhere, although the specific details of Mexican macromycete ecology are of value in the wider inventory of global biodiversity.

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