

## Book review

A.D.M. Rayner, C.M. Brasier & David Moore (Eds), 1987. *Evolutionary biology of the fungi*. Cambridge University Press, 465 pp., ISBN 0-521-33050-5. Price: £ 40.00.

This book contains the proceedings of a symposium organized by the British Mycological Society at the University of Bristol in April 1986.

The purpose of the symposium was to bring together and discuss a series of essays on the rapidly expanding knowledge about the evolutionary biology of the fungi. It was felt that 'the development of a fundamental framework of information and ideas on this subject is urgently needed to meet the challenge of an era of molecular manipulation and gross environmental disturbance, with all the attendant evolutionary implications', as the editors state in their Preface.

Volumes in the British Mycological Society Symposium Series have two important features: the multidisciplinary approach that has been adopted and the breadth of readership to which they appeal. This is especially true for the volume in hand.

Twenty-nine chapters are collected in this book, dealing with an exceptionally broad series of subjects ranging from molecular biology, fungal chromosomes, speciation, phylogeny, symbiosis, mutualism, parasitism, cell-wall composition and chemotaxonomy to terminology below the species level.

The chapters on 'Chromosome organisation and genome evolution in yeast' (with a beautiful photograph on the electrophoresis of yeast chromosomes supplied by D.H. Williamson) and 'Speciation in *Phytophthora*' pleased me most. This, however, only reflects a personal, rather accidental preference. In fact, to mention these two is unjust to other contributions of equal quality.

To plant and forest pathologists, the chapters on 'Evolution of parasitism in the fungi', 'The dynamics of fungal speciation' (partly dealing with vegetative compatibility and incompatibility groups in *Ceratocystis ulmi*), 'Occurrence and interactions of outcrossing and non-outcrossing populations in *Stereum*, *Phanerochaete* and *Coniophora*' and 'Breeding units in the forest pathogens *Armillaria* and *Heterobasidion*' can be especially recommended.

The editors are to be congratulated with the publication of this volume. It is a well edited, advanced and up-to-date treatise on basic aspects of evolution in action.

The book is most interesting for those who wish to be informed on modern trends in mycological research. However, subjects are so varied and treated at such a specialized level that even the experienced reader will not grasp the contents of every chapter at first glance. The volume is required for libraries, but is not meant for undergraduate students.

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