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978-0-521-04818-7 - Fungal Conservation: Issues and Solutions

Edited by David Moore, Marijke M. Nauta, Shelley E. Evans and Maurice Rotheroe
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Fungal Conservation

Issues and Solutions

Threats to fungi and fungal diversity throughout the world have prompted debates about whether and how fungi can be conserved. Should it be the site, or the habitat, or the host that is conserved? All of these issues are addressed in this volume, but coverage goes beyond mere debate with constructive guidance for management of nature in ways beneficial to fungi. Different parts of the world experience different problems and a range of examples are presented: from Finland in the North to Kenya in the South, and from Washington State, USA, in the West to Fujian Province, China, in the East. Equally wide-ranging solutions are put forward, from voluntary agreements, through land management techniques, to primary legislation. Taken together, these provide useful suggestions about how fungi can be included in conservation projects in a range of circumstances.

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Issues and Solutions

*A SPECIAL VOLUME OF
THE BRITISH MYCOLOGICAL SOCIETY*

EDITED BY

DAVID MOORE, MARIJKE M. NAUTA,
SHELLEY E. EVANS AND MAURICE ROTHEROE

Published for the British Mycological Society



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Preface

Conservation is a major concern at the moment. In the second half of the twentieth century, naturalists (including mycologists) became aware of a general decline in natural habitats. Significant decline in the number of species, and in the occurrence of species of fungi, was detected in the 1960s in several countries in Europe and was correlated with changes in land usage and with three consistent themes of environmental pollution: eutrophication (contamination of water bodies with nutrients draining off agricultural land), acid rain (mostly downwind of industrial smoke plumes) and desertification (caused by shifts in precipitation patterns resulting from climatic change). Since that time the general attitude has changed to one in which managers try to improve biodiversity.

This book examines the various problems associated with fungal conservation. In different parts of the world there are several threats to fungi and fungal diversity that prompt thoughts of conservation. However, it is not self-evident whether and how fungi themselves can be conserved. Perhaps the emphasis should be placed on conservation of the site, or the habitat, or the host? All of these issues are addressed and debated here, but this book goes beyond mere debate by filling the need for practical guidance for management of nature in ways beneficial to fungi. Different parts of the world experience different problems, so there are different solutions too. Here we present a range of different case studies and describe the range of regulatory and control procedures that are beginning to emerge. Taken together, these give tips on how to include fungi in conservation projects in a range of circumstances.

We believe that the combination of reviews of the research literature with discussion of how to solve problems in the real world makes this book virtually unique, at least in English. We hope, therefore, that it will be found to be a succinct and practical guide about the subject – one that will

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Preface

be used just as much by nature managers, administrators and politicians who have to make policy to deal with conservation issues, as by amateur and professional mycologists who want to know more about the status of the fungi.

The book has its origin in a British Mycological Society Symposium which was organised by Bruce Ing, Maurice Rotheroe and Shelley Evans at the Royal Botanic Gardens in Kew on 13 November 1999, entitled *Fungal Conservation in the 21st Century*. These contributions have been integrated with a selection of the most appropriate papers delivered at the XIIIth Congress of European Mycologists, held in Alcala de Henares, Spain, 21–25 September 1999. Importantly, the conference contributions have been complemented by six specially commissioned chapters. Among these are chapters that enhance the geographic representation of the book's contents so that it is truly global in its coverage. We have also added two chapters that relate how national mycological societies can contribute to fungal conservation and two editorial overviews. Chapter 1 attempts to provide some signposts for readers to help them get the best out of the rest of the book. The final chapter is an attempt to convey in writing some feeling of the discussions that occurred during the meetings. We asked contributors to respond to the question 'Are you optimistic or pessimistic about fungal conservation in the 21st century?' They reply from different standpoints, but, thankfully, they all count themselves as optimists. So, read on and find out why!

David Moore
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October 2000