

Book reviews

Books for consideration to review in this section should be posted to the Editor-in-chief.

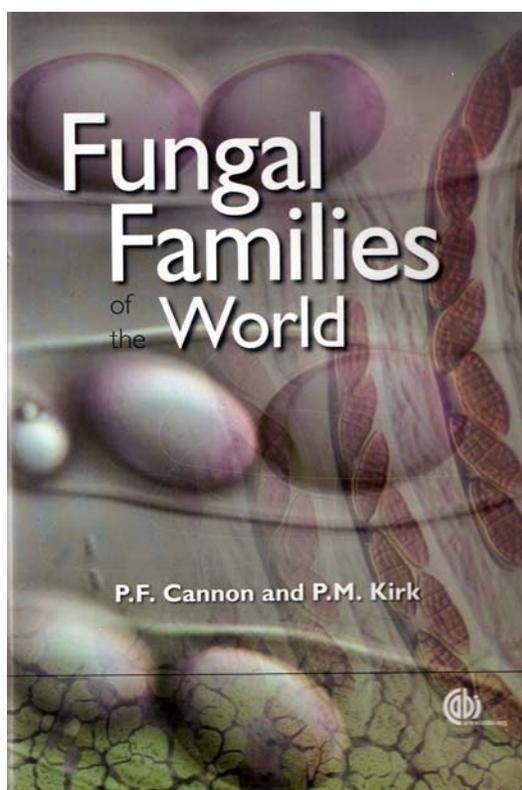
Rating system

- ★★★★★ Exceptional/brilliant.
- ★★★★ Excellent.
- ★★★ Good'
- ★★ Has merit
- ★ Not worth reading

Fungal Families of the World

by Paul F. Cannon and Paul M. Kirk
CAB International

August 2007, 450 pages, hardback
ISBN 978-0-85199-827-5 (hardback)



This very large substantial book is probably one of the most beautiful mycology books produced to date and anyone working on fungi should obtain their own personal copy. I would like to start by congratulating Paul Cannon and Paul Kirk on producing something

so magnificent. The book is basic to any fungal research and details each family in the Fungi. This is an amazing book.



Chapter 1 is very brief and deals with a discussion of the taxonomic framework used in the book. There is a brief section on the classification of fungi and then a general reference list. The book then goes straight into dealing with each fungal family in alphabetical order.

All 536 fungal families are dealt with in this book and each family can easily be located as it is in large font, bold and in alphabetical order. The first entry is the order to which the family belongs and this is followed by the list of characters thought to be characteristic of the family. Significant genera are listed and then a

there is a comment on distribution. The economic significance and ecology are briefly dealt with. Notes are provided but again these are mostly short one liners. No less than 900 full colour plates are used to help illustrate each family and a list of references provided.

I love this book. A huge amount of work has gone into compiling this book over many years and it should be purchased by all mycologists for its wealth of information.

Rating: ★ ★ ★ ★ ★

Recommendation: The book should be available in all Universities and colleges and any research institute where research in any aspect of mycology is carried out or where mycology is taught.

Cost: £95.00, US\$190.00, €150.00

Order from: www.cabi.org

Introduction to the Fungi (3rd edition)

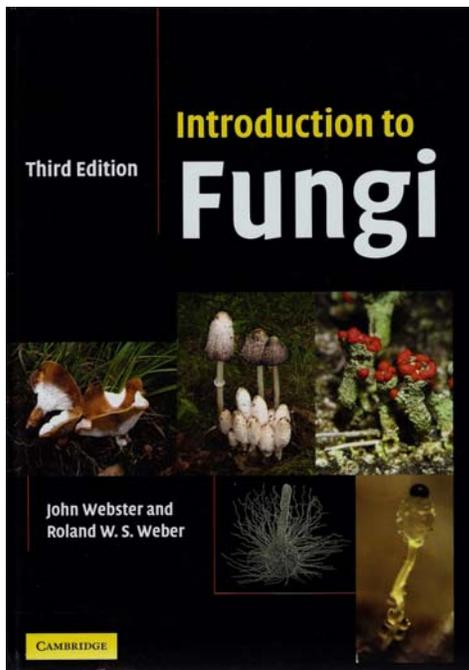
by John Webster and Roland W.S. Weber

Cambridge University Press

2007, 841 pages, hardback or paperback

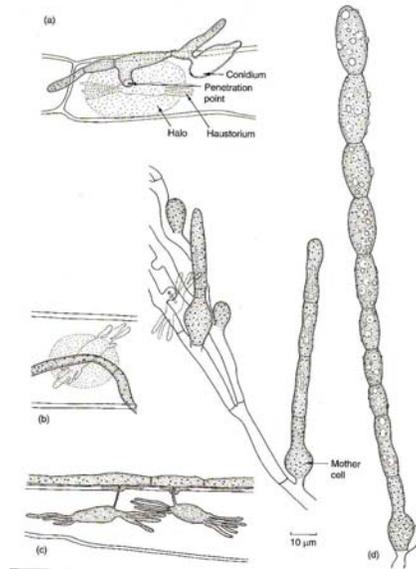
ISBN 978-0-52180-739-5 (hardback)

ISBN 978-0-52101-483-0 (paperback)



This classical mycology text is back again with its third edition. The book was first published in 1970 with a second edition in 1980 and it has also been reprinted at least five

times. This illustrates just how many students in mycology have used this book and found it an excellent text for the purpose of studying mycology



In the third edition the introduction has been greatly expanded with a detailed explanation of what are fungi, a section on physiology and ultrastructure of fungi and the general function of fungal organs including hyphae and spores. There is a section dealing with the age of fungi and finally the taxonomic system adopted in the book which follows The Mycota volumes (McLaughlin *et al.*, 2001)

Chapter two deals with the *Myxomycota*, and provides a detailed account of the biology, life cycles and taxonomy of these organisms. The Chapters in the book then continue and deal with *Plasmodiophoromycota*, *Straminiphila*, *Oomycota*, *Chytridiomycota*, *Zygomycota*, *Ascomycota*, *Hemiascomycetes*, *Plectomycetes* and so on. In this sense the book is out of date as it discusses groups of fungi by their form and not their phylogenetic lineages. However this is not so important as the forms need addressing.

Like previous editions the books is amply illustrated with numerous line diagram to get across points, especially life cycles. There are some half tone photographs and an addition of 12 colour plates with help spice up the book. The book is packed with a lot of details and organized like many old style text books and thus students will have a hard time finding the

information they really need. However the book is very comprehensive and certainly there are no complaints about lack of information.

This book is fantastically illustrated with numerous line diagrams which are important in mycology courses. As a classical textbook I recommend that every mycologist and every library associated with a mycology or plant pathology course should have this book on their shelves.

Rating: ★★★★★

Recommendation: Should be available in all libraries having any association with mycology research or students of mycology, biotechnology and plant pathology.

Cost: Hardback £75.00, US\$147; Paperback £38.00, US\$79.00

Order from: www.cambridge.org

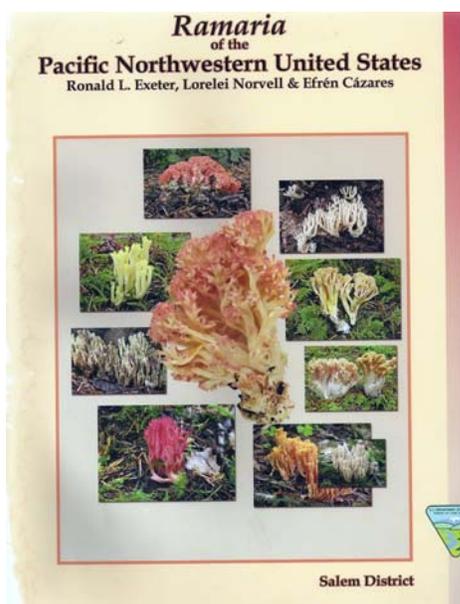
Ramaria of the Northwestern United States

By Ronald L. Exeter, Lorelei Norvell and Efrén Cázares

US Bureau of Land Management, Salem District

2006, 157 pages, paperback

ISBN 978-0-97913-100-4



This is a neat nicely illustrate complete book on the genus *Ramaria* from Northwestern United States.

The book commences with an introduction which discusses phylogenetic relationships, taxonomic characters, distribution and provides

a key to the four subgenera. The subgenera are then keyed out to species and each species is then detailed. The taxonomic literature for the species, characteristics, several colourful photograph, habitat and distribution and references for each of the 80+ taxa. The book is very detailed and would make identification of species and subspecies relatively easy. One nice thing about the book is the colour bar key at the front. This makes it easy to find ones way to the various sections such as subgenera sections, glossary and bibliography.



Overall this is a very nice book. It is wonderfully illustrated, printed with large print on glossy paper and is colourful. If I have one complaint it concerns the binding which is not so robust. This book should be obtained by all mycologists and be present in all University libraries where mycology and ecology and taught.

Rating: ★★★★★

Recommendation: For all libraries where mycology and ecology are taught. Should be available on all mycologists' bookshelves..

Cost: \$27.00

Order from: Ron Exeter: rexeter@blm.gov

Field Guide to North American Truffles

Matt Trappe, Frank Evans and James Trappe

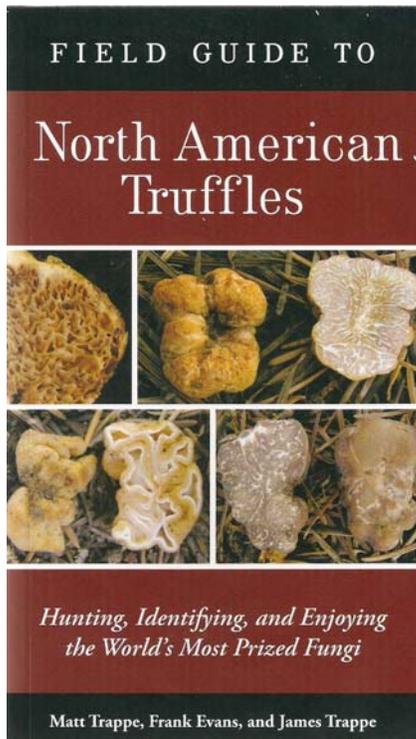
Ten Speed Press,

2007, 136 pages, paperback

ISBN 978-1-58008-862-6

This is a lovely little book! If you interested in mushrooms and want to go on a foray, this is exactly what you need. The book is nicely laid out and full of good quality colour pictures.

The book begins with an introduction to truffles. It tells you what truffles are and where and how to find them. It tells you the best times to look for truffles and what are the important characters to observe truffles for identification.



There is a warning about eating truffles and then a section on cooking and desirability. Finally the section of truffle names tells you not to be put off. Each truffle species is then dealt with in one page with species being dealt with in alphabetical order. This page is highlighted at the top by purple-brown upper headers, making it easy to use the section. Each species is illustrated and data entry includes group, season, distribution, habitats and spores characters. The book provides features to aid in identification and then comments. The comments give details such as where it grows and which truffles it can be confused with. Finally the DR (desirability rating) tells you what it tastes like (if known) and states if it is inedible.

There is also a glossary and a guide to meanings of Latin names.

The book is printed on very good glossy paper so it can survive forays and is very well laid out. It is a small book so is easy to fit in the rucksack or bag. I strongly recommend

filed mycologists and mushroom collectors to obtain this book.



M. TRAPPE

Group: Basidiomycota, Rhizopogonaceae.

Season: Year-round.

Distribution: Western North America.

Habitat: With pines, Douglas-fir, true fir, hemlock, spruce.

Spores: 6–10 x 2.5–3.5 μm , narrowly ellipsoid to spindle shaped or occasionally boomerang shaped, smooth, colorless singly but brownish in mass, pale gray in iodine solution when mature.

Features: Peridium initially white, becoming brownish from an overlay of brown fibrils, thick, fibrous-felty. Gleba initially white, at maturity brown to olive brown. Odor and taste mild.

Rating: ★★★★★

Recommendation: All colleges and libraries where agriculture, mycology and plant pathology is taught should have this. All mycologists, whether amateurs or experts should also obtain a personal copy.

Cost: \$16.95

Order from: www.tenspeed.com

Checklist of larger Polish ascomycetes

Maria Chmiel

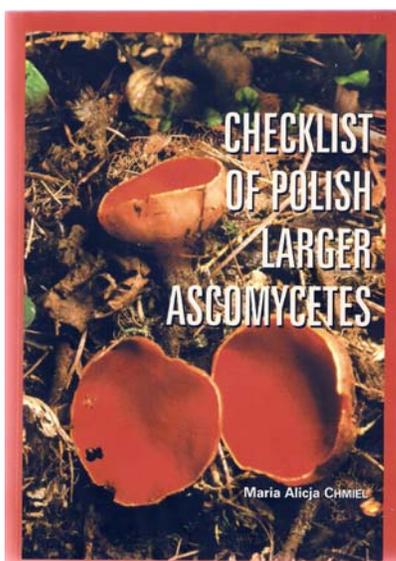
W. Szafer Institute of Botany, Polish Academy of Sciences

2006, 152 pages, paperback

ISBN: 978-83-89648-46-4

This book comprises a lists of larger ascomycetes identified in Poland and includes *Heliotales*, *Rhytismatales*, *Thelebolales* and *Pezizales*. There is a brief introduction which deals with history of collections, Latin nomenclature, polish names, substrates and works cited.

The entries include current species name and synonyms, substrate, and references. The reference list at the back is very comprehensive.



This book is a basic checklist compiled from the literature and therefore little else can be said about the book. The paper used in the printing is acceptable and the print size readable.

Rating: ★★★★★

Recommendation: should be available in all college and university libraries and research institutions dealing with mycology.

Cost: €37.20 (includes postage).

Order from: ed-office@ib-pan.krakow.pl

Fungi; multifaceted microbes

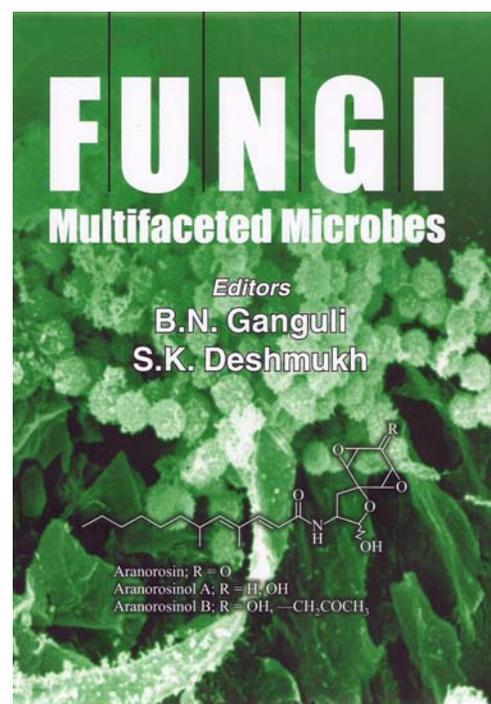
B.N. Ganguli and S.K. Deshmukh
CRC Press and Taylorand Francis Group
2007, 321 pages, hardback
ISBN 1-4200-4328-5

This is a compact hardy book with a very nice cover and is packed with 321 pages of interesting text. The book has attempted to reveal some of the interesting aspects that make fungi multifaceted microbes. This ranges from fungal biochemistry and biotechnology, evolutionary aspects, and much more as seen below. The book contains 18 articles from no less 36 international authors.

Chapter 1 briefly deals with fungal secondary metabolites, a hot topic in drug discovery. This chapters addresses the problems of drug discovery and suggests some ways to overcome these problems. Chapter 2 deals with the biology and biotechnology potential of saprobic *Entomophthales*. The articles focuses

on the genera *Conidiobolus* and *Basidiobolus* with their entire biology being reviewed. There is a section near the end dealing with their potential in biotechnology as some strains can produce high activity alkaline proteases in culture. Other potential biotechnology applications are also discussed.

Chapter 3 is mainly taxonomic and deals with hymenochaetoid fungi in India. It includes a key to Indian species and notes and collections of the species. Excluded and doubtful species are also mentioned.



Chapter 4 deals with the recent hot topic of endolithic fungi. These are boring fungi that live on rocks and shells or corals. The chapter deals mainly with their ecology. Chapter 5 is also on rock-inhabiting fungi, this time the micromycetes with dark hyphae. These fungi are important as they can destroy historical buildings. The chapter also discusses links of lithobionts to human mycoses. Chapter 6 looks at diversity of aquatic hyphomycetes in the tropics. In reality it only deals with the leaf-inhabiting tetrastrate or sigmoid aquatic forms. Sections deal with biodiversity, biology, what really are aquatic fungi, historical data and geographical distribution, and study methods.

Chapter 7 explores molecular identification and detection of plant pathogenic and

toxigenic *Fusarium* species while Chapter 8 looks at evolutionary relationships in *Aspergillus* species. These genera have been the topics of recent books (see Fungal Diversity book reviews). Chapter 9 again deals with aquatic hyphomycetes, this time looking at their taxonomic affinities. Phylogeny of lichen-forming ascomycetes are addressed in Chapter 10 while Chapter 11 looks at secondary metabolites of lichens. Lichens have a high medicinal potential. Chapter 12 is on the diversity and applications of tropical endophytes. This is a good review chapter but does not have much that is new to say. Chapter 13 looks at natural products from marine fungi. This is a hot topic these days and an entire issue of *Botanica Marina* has been dedicated to the subject. There are lots of tables and data in the present review chapter which is well worth reading. Chapter 14 discusses an interesting topic; mycoinsecticides. It covers some common topics but also deals with new applications. Mycoinsecticides are discussed in Chapter 15. This chapter is mostly organism based but briefly touches on developmental aspects. Chapter 16 explores mycotoxin detection in the agri-food system. Chapter 17 discusses biosynthesis of silver nanoparticles using fungi and finally Chapter 18 looks at arbuscular mycorrhizal populations in relation to agricultural practices.



This book covers many topics, is well produced and highly readable. One very good

point about the book is that it is very well referenced and many of the chapters are topical.

Rating: ★★★★★

Recommendation: This should be available in all university libraries and colleges where mycology, plant pathology, ecology and biotechnology is taught or researched. I would recommend that this is read by mycologists to update their teaching.

Cost: \$149.95

Order from: Taylor and Francis group

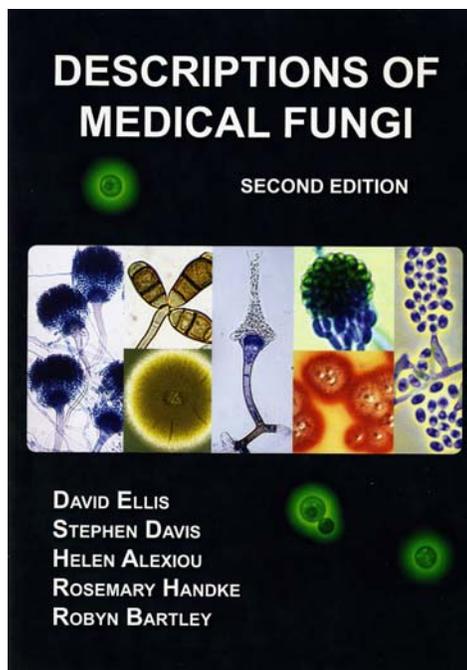
Descriptions of Medical Fungi, second edition

David Ellis, Stephen Davis, Helen Alexiou, Rosemary Handke and Robyn Bartley

Published by the authors

2007, 198 pages, paperback

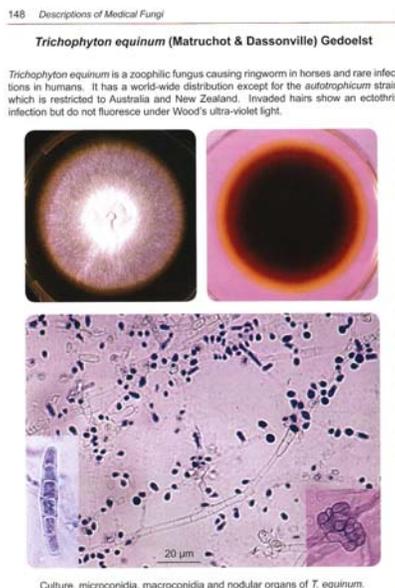
ISBN 978-0-95985-1-267



As the title suggests, this book is designed as a laboratory manual for the identification of medical fungi. It is a lovely colourful book with large print and as it is organized alphabetically it is very easy to use. In most cases each page is dedicated to a fungal taxon although important genera are also given space.

Each taxon entry includes the name and authors, a brief description (mostly from previously described sources), brief notes on

taxonomy, key identification features, important references for detailed descriptions, a colour plate of diagnostic characteristics and finally the fungicides that will treat it with doses.



Important techniques and stains are listed from page 178 onwards and this includes specialized culture media. A generous reference list is also provided.

Rating: ★★★★★

Recommendation: This is a compact manual and is essential for all libraries, hospitals, large medical centres and even doctors.

Cost: AUD\$ 100

Order from: dellis@adelaide.edu.au

Fungal Flora of Taiwan (Volume 2)

Edited by S.S. Tzean, W.H. Hsieh, T.T. Chang and S.H. Wu.

National Science Council, Taiwan

2005, 956 pages, hardback

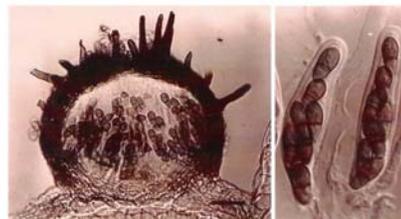
ISBN 986-00-1787-5

I review this book here as it is part of a series that mycologists should know about. This particular volume (2) deals with the *Ascomycota* but there are five volumes in this series now published. Volume 1 deals with *Myxomycota*, *Chytridiomycota*, *Oomycota*, *Zygomycota* and some *Ascomycota*, Volumes 3 and 4 the *Basidiomycota* and some anamorphic fungi and Volume 5 anamorphic fungi only.

1st Edition **Fungal Flora of Taiwan**

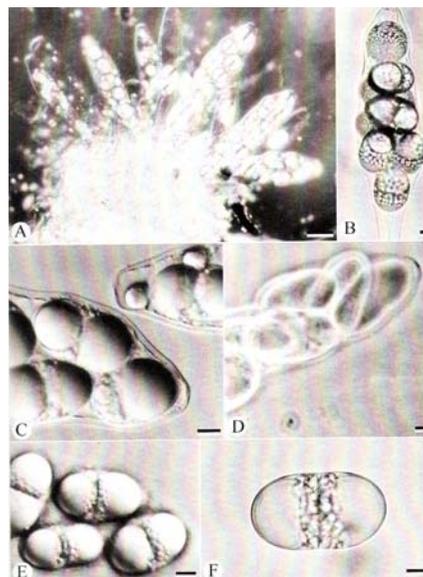
Volume 2

Edited by
S. S. Tzean, W. H. Hsieh,
T. T. Chang, and S. H. Wu



行政院國家科學委員會
National Science Council

In each volume two pages are devoted for each fungal species. This includes a standard detailed description, specimens examined, habitat, distribution and references. The plate may be a line drawing, a black and white plate or some are colour. I have no idea how the taxa included were chosen but 1,160 of the 6,000 known fungal species of Taiwan are detailed in these five volumes.



This is a neat set of volumes and are good quality and very nicely illustrated. I recommend that all mycologist should obtain a set either personally or through their libraries.

Rating: ★★★★★

Recommendation: Should be available in all college, university, research laboratories and institutional libraries where there are courses and research in mycology or plant pathology. I recommend that all mycologists should obtain a set either personally or through their libraries.

Cost: unknown

Order from: web.nsc.gov.tw

Reviewed by

Kevin D. Hyde

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Tasud, Chiang Rai 57100, Thailand