



**British Mycological  
Society** promoting fungal science



# FOUR STEPS TO DISCOVER MORE ABOUT FASCINATING FUNGI

## 1 Join your Local Fungus Group

Over 30 Local Fungus Recording Groups now exist, located in many parts of the country, helping to put mushrooms on the map in the UK. Enthusiasts run them on a voluntary basis; they seek to share their knowledge of wild fungi and improve identification skills. The groups offer a friendly and welcoming environment that helps new members thoroughly enjoy the world of fungi. If you are interested in joining a group please check the address list overleaf and send a stamped, self-addressed envelope to the group nearest to you asking for details of membership, events and fungus forays. And don't forget that many of the wardens in local nature reserves organize fungal walks

## 2 Buy yourself a field guide

The most comprehensive photographic field guide for collecting mushrooms and other fungi is Roger Phillips' *Mushrooms* (2006; Macmillan, ISBN: 0330442376). This is a large book; a pocket-sized alternative that also has excellent photographs is Edmund Garnweidner's *Mushrooms and Toadstools of Britain and Europe* in the Collins Nature Guides series (1994: HarperCollins, ISBN 0261674064). Also helpful and entertaining are: T. Laessøe and A. Del Conte, *The Mushroom Book*, (1996; Dorling Kindersley, ISBN: 0789410737); D. Pegler, *The Easy Edible Mushroom Guide*, (1999; Aurum Press, ISBN 1854106317); R. Gillmor, N. Hammond, P. Harding, T. Lyon, and G. Tomblin, *Collins How to Identify Edible Mushrooms*, (1999; Harper Collins, ISBN 000219984X); P. Jordan and S. Wheeler, *The Practical Mushroom Encyclopedia: Identifying, Picking and Cooking with Mushrooms*, (2000; Anness Publishing, ISBN 1842152432).

Books for the general reader about the world of fungi include: B. Spooner & P. Roberts, *Fungi* (2005, Collins New Naturalist Series; ISBN: 0002201526); D. Moore, *Slayers, Saviours, Servants, and Sex, an Exposé of Kingdom Fungi*, (2001; Springer-Verlag New York Inc.; ISBN: 0387950982); Roy Watling, *Fungi*, (2003; Natural History Museum, ISBN 0565091824); N. P. Money, *Mr. Bloomfield's Orchard*, (2002; OUP, ISBN 0195154576); G. A. Fine, *Morel Tales: the Culture of Mushrooming*, (1998; Harvard UP, ISBN 0674089359); G. W. Hudler, *Magical Mushrooms, Mischievous Molds*, (1998; Princeton UP, ISBN 0691028737).

## 3 Subscribe to *Field Mycology*

This excellent, best-selling magazine about wild fungi contains a wealth of information including user-friendly identification keys, helpful, readable articles on all aspects of fungi, and beautiful colour photographs. Subscriptions (£20.00 for 4 issues) are available from: Customer Service Department, Elsevier, P.O. Box 211, 1000 AE, Amsterdam, The Netherlands [visit <http://www.elsevier.com/locate/fldmyc> to order on-line].

## 4 Visit the BMS websites

Point your browser to these URLs for the most extensive information resources on fungal biology on the Internet:

[<www.britmycolsoc.org.uk/>](http://www.britmycolsoc.org.uk/) and [<www.fungi4schools.org/>](http://www.fungi4schools.org/)

## BRITISH MYCOLOGICAL SOCIETY RECORDING NETWORK

Network Co-ordinator ~ Liz Holden

Allanaquoich, Mar Lodge, Braemar, Ballater, Aberdeenshire, Scotland. AB35 5YJ

### BUCKINGHAMSHIRE FUNGUS GROUP

Derek Schafer, 8 Hawleys Lane, Oving Rd, Whitchurch,  
Bucks.HP22 4LB

### COTSWOLD FUNGUS GROUP

Dave Shorten, 45 Sevenfields, Highworth, Swindon, Wilts.  
SN6 7NF

### DEAN FUNGUS GROUP

Valerie Davies, Treveth, Wintles Hill, Westbury on Severn, Glos.  
GL14 1QB.

### DEVON FUNGUS GROUP

David Farley, School of Biological Sciences, Washington  
Singer Labs, Perry Rd. University of Exeter, Devon. EX4 4QG.

### DORSET FUNGUS GROUP

Ken Roberts, 6 Woodlinken Close, Verwood, Dorset BH31 6BS

### DUBLIN FUNGUS WORKING GROUP

Howard Fox, National Botanic Gardens, Glasnevin, Dublin 9

### ESSEX FUNGUS GROUP

Tony Boniface, 40 Pentland Ave, Chelmsford, Essex. CM1 4AZ

### FIFE FUNGUS INTEREST GROUP

Keith Cohen, 79 Cash Feus, Strathmiglo, Cupar, Fife KY14 7QP

### FUNGUS GROUP OF S.E. SCOTLAND

Elizabeth Farquharson, 6 Chamberlain Rd, Edinburgh, EH10  
4DN

### FUNGUS SURVEY OF OXFORDSHIRE

Wendy MacEachrane, 14, Crecy Walk, Woodstock,  
Oxfordfordshire, OX20 1US

### GLAMORGAN FUNGUS GROUP

Mervyn Howells, 63 Ashleigh Road, Sketty, Swansea, Glam,  
Wales. SA2 8EE

### GRAMPIAN FUNGUS GROUP

Liz Holden, Allanaquoich, Mar Lodge Estate, Braemar,  
Ballater, Aberdeenshire, Scotland. AB35 5YJ

### GWENT FUNGUS GROUP

Sheila Spence, 'Porcini', 12 Golding Way, Ledbury, Hereford.  
HRB 2PN

### HAMPSHIRE FUNGUS RECORDING GROUP

Stuart Skeates, 55, Cherville St., Romsey, Hampshire SO51 8 FB

### HEREFORDSHIRE FUNGUS SURVEY GROUP

Sheila Spence, 'Porcini', 12 Golding Way, Ledbury, Hereford.  
HR8 2PN

### HERTFORDSHIRE FUNGUS GROUP

Alan Outen, 14 Fairfax Close, Clifton, Shefford, Beds. SG17  
5RH

### HUNTINGDON FUNGUS GROUP

Sheila Wells, 94 High St, Upwood, Huntingdon Cambs. PE26  
2QE

### LEICESTERSHIRE FUNGI STUDY GROUP

Richard Iliffe, 17 Island Close, Hinckley, Leics. LE10 1LN

### LINCOLNSHIRE NATURALISTS UNION - MYCOLOGY Sect.

Ken Rowland, 2 Dene Close, Skellingthorpe, Lincoln. LN6 5SU

### LONDON RECORDING GROUP

Andy Overall, 'Fungi To Be With', Flat 2, 39 Northend Road,  
Golders Green, London NW11 7RJ

### MID YORKSHIRE FUNGUS GROUP

Ann Bowers, 6 Ashwood Tce., Leeds LS6 2EH

### MELBOURN MUSHROOM CLUB - Cambridge area

Helene Davies, Culver Cottage, 139, Hillcrest, Bar Hill,  
Cambridge CB3 8TH

### MYCOLOGY SECTION SOCIETE JERSIAISE

Nick Armstrong, 2 Hillside, La Ruelle, Vacluse, St Helier, Jersey

### NORFOLK FUNGUS STUDY GROUP

Tony Leech, 3 Eccles Rd, Holt, Norfolk. NR25 6HJ

### NORTH WEST FUNGUS GROUP

Dr. Irene Ridge, Smalley's Farm, Billington, Clitheroe BB7 9JF

### NORTHERN IRELAND FUNGUS GROUP

Gerald Shannon, 41A Newal Road, Ballymoney, Co. Antrim N.  
Ireland. BT53 6HB

### NOTTINGHAMSHIRE FUNGUS GROUP

Mary Hawkins, 16 Gertrude Rd., West Bridgford, Nottingham,  
NG2 5BY

### PEMBROKESHIRE FUNGUS RECORDING NETWORK

David Harries [www.pembsfungi.org.uk](http://www.pembsfungi.org.uk)

### SALISBURY NATURAL HISTORY SOCIETY: MYCOLOGY SECTION

Edward Gange, 'Belvedere', Southampton Road, Whaddon,  
Salisbury, Wilts. SP5 3DZ

### SHROPSHIRE FUNGUS GROUP

Roy Mantle, 37, Ludlow Rd., Bridgnorth, Shropshire WV16 5AS

### STAFFORDSHIRE FUNGUS GROUP

Camilla Lovatt, Dunwood Hall, Longdon, Nr Leek, Stoke-on-  
Trent, Staffs. ST9 9AR

### THAMES VALLEY FUNGUS GROUP

Gordon Crutchfield, 5, Highdown Hill Rd., Emmer Green,  
Reading RG4 8QR

### WARWICKSHIRE FUNGUS SURVEY

David Antrobus, 55 Gower Road, Halesowen, West Mids. B62  
9BX

### WEST WEALD FUNGUS RECORDING GROUP

Barry Hughes Woodbury Knoll, 5, Hambledon Park,  
Hambledon, Godalming, Surrey GU8 4ER

### WORCESTERSHIRE FUNGUS GROUP

Diana and Tim Bateman, Baytree Cottage, Uphampton,  
Omersley, Worcs. WR9 0JS

**BRITISH MYCOLOGICAL SOCIETY The Wolfson Wing, Jodrell Laboratory, Royal Botanic Gardens,  
Kew, Surrey TW9 3AB**

## Recommended books list

This is a list of books that we recommend as authoritative, reliable and valuable. The **standard reference work** for terminology and definitions is P. M. Kirk, P. F. Cannon, J. C. David, and J. A. Stalpers, *Dictionary of the Fungi*, 9<sup>th</sup> ed. (2001; CABI Publishing, ISBN 085199377X). M. Ulloa and R. T. Hanlin, *Illustrated Dictionary of Mycology*, (2000; APS Press, ISBN 0890542570), is also an excellent dictionary of mycological terms.

**Books for the general reader** about the world of fungi include: B. Spooner & P. Roberts, *Fungi* (2005, Collins New Naturalist Series; ISBN: 0002201526); D. Moore, *Slayers, Saviours, Servants, and Sex, an Exposé of Kingdom Fungi*, (2001; Springer-Verlag New York Inc.; ISBN: 0387950982); Roy Watling, *Fungi*, (2003; Natural History Museum, ISBN 0565091824); N. P. Money, *Mr. Bloomfield's Orchard*, (2002; OUP, ISBN 0195154576); G. A. Fine, *Morel Tales: the Culture of Mushrooming*, (1998; Harvard UP, ISBN 0674089359); G. W. Hudler, *Magical Mushrooms, Mischievous Molds*, (1998; Princeton UP, ISBN 0691028737); E. Schaechter, *In the Company of Mushrooms: a Biologist's Tale*, (1997; Harvard UP, ISBN 0674445546).

**Information at college-level** may be found in B. Kendrick, *The Fifth Kingdom*, 3rd ed. (2000; Focus Publishing; ISBN: 1585100226); C. J. Alexopoulos, C. W. Mims, and M. Blackwell, *Introductory Mycology*, 4th ed. (1996; John Wiley and Sons (WIE); ISBN: 0471522295); M. J. Carlile, S. C. Watkinson, and G. W. Gooday, *The Fungi*, 2nd ed. (2001; Academic Press, ISBN 0127384464); E. Moore-Landecker, *Fundamentals of the Fungi*, 4th ed. (1996; Prentice Hall International, ISBN: 0133768643); N. A. R. Gow and G. M. Gadd, G. M., *The Growing Fungus*, (1995; Kluwer Academic Publishers; ISBN: 0412466007). Another useful text is: R. P. Oliver and M. Schweizer, *Molecular Fungal Biology*, (1999; Cambridge University Press; ISBN: 052156784X).

The most **comprehensive modern treatise on fungi**, which has been in production by Springer-Verlag since 1994, is *The Mycota*, which has K. Esser and P. A. Lemke listed as general editors, but different volume editors for each of the 13 volumes published to the time of writing. The topics covered in those volumes include *Growth, Differentiation and Sexuality* (vol. 1), *Genetics and Biotechnology* (vol. 2), *Biochemistry and Molecular Biology* (vol. 3), *Environmental and Microbial Relationships* (vol. 4), *Plant Relationships* (vols 5A and 5B), *Human and Animal Relationships* (vol. 6), *Systematics and Evolution* (vols 7A and 7B), *Biology of the Fungal Cell* (vol. 8), *Fungal Associations* (vol. 9), *Industrial Applications* (vol. 10) and *Agricultural Applications* (vol. 11, published 2002). Details about volume contents and availability are obtainable from the Springer website at this URL: <http://www.springeronline.com/sgw/cda/frontpage/0,10735,5-10027-69-1189086-0,00.html>.

**Practical guidance about modern laboratory techniques** is provided by N. J. Talbot, *Molecular and Cellular Biology of Filamentous Fungi*, (2001; OUP, ISBN 0199638373), and although they are long out of print, two books that still contain useful guidance about laboratory procedures are: D. L. Hawksworth, *Mycologist's Handbook*, (1974; Commonwealth Agric. Bureaux, ISBN 0851983065); and R. B. Stevens, *Mycology Guidebook*, (1981; Univ. Washington Press, ISBN 0295958413).

The most comprehensive photographic **field guide** for collecting mushrooms and other fungi is Roger Phillips' *Mushrooms* (2006; Macmillan, ISBN: 0330442376). Roger Phillips has an extensive website you might like to visit at <http://www.rogersmushrooms.com>. Phillips' book is a large-format book; a pocket-sized alternative which also has excellent photographs is Edmund Garnweidner's *Mushrooms and Toadstools of Britain and Europe* in the Collins Nature Guides series (1994; HarperCollins, ISBN 0261674064). Collins produce a second pocket-sized guide called *Mushrooms and Toadstools of Britain and Europe* by Brian Spooner; it's in the Collins Wild Guide series and has the cover title *Collins Wild Guide Mushrooms and Toadstools* (ISBN 0002200074).

Also helpful and entertaining are: T. Laessøe and A. Del Conte, *The Mushroom Book*, (1996; Dorling Kindersley, ISBN: 0789410737); D. Pegler, *The Easy Edible Mushroom Guide*, (1999; Aurum Press,

ISBN 1854106317); R. Gillmor, N. Hammond, P. Harding, T. Lyon, and G. Tomblin, *Collins How to Identify Edible Mushrooms*, (1999; Harper Collins, ISBN 000219984X); P. Jordan and S. Wheeler, *The Practical Mushroom Encyclopedia: Identifying, Picking and Cooking with Mushrooms*, (2000; Anness Publishing, ISBN 1842152432). *Fungal Conservation: Issues and Solutions* (Moore, D., Nauta, M.M., Evans, S.E. & Rotheroe, M.; 2001; Cambridge University Press, ISBN 1521803632) is a more formal scientific treatment of the issues surrounding conservation of fungi.

**Fungal genetics** is dealt with in D. Moore and L. Novak Frazer, *Essential Fungal Genetics* (2002; Springer-Verlag New York Inc.; ISBN: 0387953671); C. J. Bos, *Fungal Genetics: Principles and Practice*, (1996; Marcel Dekker; ISBN: 082479544X); and C. G. Elliott, *Reproduction in Fungi: General and Physiological Aspects*, (1994; Kluwer Academic Publishers; ISBN: 0412496402). The only treatment of **fungal population biology** is the highly recommendable book by J. H. Burnett, *Fungal Populations and Species*, (2003; OUP, ISBN 0198515537). Similarly, the only comprehensive account of **fungal physiology** is D. H. Jennings, *The Physiology of Fungal Nutrition*, (1995; CUP, ISBN 0521355249).

**Fungal developmental biology** is dealt with by D. Moore, *Fungal Morphogenesis*, (1998; Cambridge University Press; ISBN: 0521528577); H. Cléménçon, *Anatomie der Hymenomyceten*, (1997; Flück-Wirth, Teufen/Université de Lausanne, ISBN 3715000406); N. A. R. Gow, G. D. Robson, and G. M. Gadd, *The Fungal Colony*, (1999; CUP, ISBN 0521621178); and H. D. Osiewacz, *Molecular Biology of Fungal Development*, (2002; Marcel Dekker, ISBN 0824707443).

**Tropical fungi** are covered in R. Watling, J. C. Frankland, A. M. Ainsworth, S. Isaac, and C. H. Robinson, *Tropical Mycology: Volume I Macromycetes and Volume 2 Micromycetes*, (2002 and 2001, respectively; CABI Publishing, ISBN 085199542X & 0851995438). **Lichen biology** and identification are dealt with in: T. H. Nash, *Lichen Biology*, (1996; Cambridge University Press; ISBN: 0521453682) and J. N. Corbridge and W. A. Weber, *Rocky Mountain Lichen Primer*, (1998; Colorado University Press; ISBN: 0870814907); and a classic account of **yeasts** is J. A. Barnett, R. W. Payne, D. Yarrow, and Linda Barnett, *Yeasts: Characteristics and Identification*, (2000; CUP, ISBN 0521573963). The book by A. Varma and B. Hock, *Mycorrhiza: Structure, Function, Molecular Biology and Biotechnology*, (1998) covers the biology of **mycorrhizas**, and practical aspects are considered in A. Varma, *Mycorrhiza Manual*, (1998).

Different aspects of **fungal biotechnology** are dealt with in: P. Stamets and J. S. Chilton, *The Mushroom Cultivator*, (1983; Richmond Publishing Company; ISBN: 0961079800); P. Stamets, *Growing Gourmet and Edible Mushrooms*, (1993; Ten Speed Press, ISBN: 1580081754); S. B. Pointing and K. D. Hyde, *Bio-Exploitation of Filamentous Fungi*, (2001; Fungal Biodiversity Press, ISBN 9628567721); J. Singh and K. R. Aneja, *From Ethnomycology to Fungal Biotechnology: Exploiting Fungi from Natural Resources for Natural Products*, (1999; Kluwer Academic/Plenum Publishers; ISBN: 0306460599); P. F. Stanbury and A. Whitaker, *Principles of Fermentation Technology*, (1998); and G. M. Gadd, *Fungi in Bioremediation*, (2001; CUP, ISBN 0521781191).



# Recommended Internet Links

We offer here a selection of useful Internet sites under the 5 general headings (a) sites for general information; (b) medical and health matters; (c) the natural environment, biodiversity and identification; (d) Societies and institutions (some not in English – so try your language skills); (e) shops and publishers. All hyperlinks verified 28 September 2005.

## Sites for General Information

### Virtual Library of Mycology

<http://mycology.cornell.edu/findex.html>

This is the index page to the WWW Virtual Library of Mycology, maintained by Kathie T. Hodge, an Assistant Professor of Mycology in the Department of Plant Pathology at Cornell University. Kathie is also director of Cornell's Plant Pathology Herbarium. There are more links on this site than I know what to do with. If you can't find what you're looking for here, you probably shouldn't be looking for it!

### Microbiology for schools

<http://www.microbiologyonline.org.uk/>

Microbiology-online offers microbiology for schools and colleges. Supported by the Society for General Microbiology and MISAC (Microbiology in Schools Advisory Committee) working together to support microbiology education for all Key Stages and post-16.

### Microbiology Information Portal

<http://www.microbes.info>

Microbes.info at <http://www.microbes.info/> is an internet web portal designed to bring useful and interesting microbiology informational resources to all who are interested. Microbes.info is a firm starting point for finding information concerning microbiology. The site offers a wide range of useful and interesting information although fungal content is limited. But then maybe more mycologists should offer material for inclusion.

### MushWorld.com

<http://www.mushworld.com/>

MushWorld promises "total mushroom information". I'm not sure it's quite achieved that yet, but it is a wonderful site for information and images mainly about the numerous fungal fruit bodies (not just mushrooms) that are valued in Asia. The site is operated by a non-profit organization located in Seoul, Korea, which started publication of a monthly magazine 'Mushroom Farming & Life' in October 1998. This printed version was replaced with the MushWorld web magazine in November 2000. General science, collecting, and cultivation are all covered. You have to register (it's free) as a "member" of the site's community and then you can enjoy a range of services, including the Webzine MushWorld, access to the Mushroom Community, Article Collection, Library, Images, etc. A well-designed and well maintained site; definitely worth a visit.

### Cornell Center for Fungal Biology

<http://ccfb.cornell.edu/>

CCFB, The Cornell Center for Fungal Biology, promotes the study and teaching of fungi, lichens etc. This site was established to showcase the "Fungi of the Lindsay-Parsons Biodiversity Preserve Project". In this site you will find links to specimens, as well as other useful information about fungi. Nicely designed site, but infrequently updated.

### Taylor Lockwood's "Treasures from the Kingdom of Fungi"

<http://www.fungiphoto.com>

Photographs to delight. Taylor F. Lockwood states that the essence of his work is the appreciation of the beauty and variety of mushrooms and other fungi. His stunning photographs certainly manage that.

### Biosciences Federation

<http://www.bsfc.ac.uk/default.htm>

The Biosciences Federation aims to promote liaison, dialogue and interactions within the diverse community of bioscientists on common issues that relate to research and teaching in the UK.

### Institute of Biology (IoB)

<http://www.iob.org/>

The Institute of Biology is the Voice of British Biology – supporting the bioscience community, informing debate, shaping the future.

### National Federation for Biological Recording

<http://www.nfbr.org.uk>

The National Federation for Biological Recording is the premier UK organisation for practitioners involved in biological recording. NFBR brings together suppliers, managers, and users of information about species, habitats and wildlife sites; promotes a forum for discussion and sharing of knowledge and experience; promotes the importance of biological information in nature conservation, planning, research and public participation; represents the biological recording community. Membership includes individual naturalists, national organisations and recording societies, local records centres and their staff.

The UK Life Sciences Speakers Database

<http://www.biology4all.com>

This database has been developed by the UK Life Sciences Committee to provide a central resource for schools looking for speakers from HE establishments.

Statistics

<http://www.Statpages.net>

Statpages is a website that collects together interactive pages that perform statistical calculations. There are also links to books, tutorials, software and other resources related to statistical analyses.

Looking for something scientific? Try Scirus

<http://www.scirus.com/>

Scirus is the most comprehensive science-specific search engine available on the Internet. Driven by the latest search engine technology, it enables scientists, students and anyone searching for scientific information to chart and pinpoint data, locate university sites and find reports and articles quickly and easily. It was launched by Elsevier Science, the leading international publisher of scientific information.

## Medical and Health Matters

Advice about Poisoning - Roy Watling's essential medical guide to fungal poisoning in children

[http://www.britmycolsoc.org.uk/files/RBG\(E\)PubOrder\\_form.pdf](http://www.britmycolsoc.org.uk/files/RBG(E)PubOrder_form.pdf)

The full title of this little book is: 'Children and Toxic Fungi: The essential medical guide to fungal poisoning in children' by Roy Watling (1995). ISBN 1 872291 16 3, softback, 56pp. This is an authoritative yet easy-to-use guide to the identification of fungi - both toxic and harmless - likely to be encountered by young children. It enables a quick assessment of the fungus involved, so treatment can be undertaken and a decision made as to whether an expert should be consulted. It is based on Roy's 40 years experience of the combination of children and fungi in Edinburgh! The book costs £10.00 plus £1.00 p+p and is available by mail order from the Publications Department of the Royal Botanic Garden in Edinburgh – **CLICK ON THE HYPERLINK IN THE TITLE OF THIS PARAGRAPH TO DOWNLOAD AN ORDER FORM.** If you are in the vicinity, you will also find the book for sale in the Botanic Shops at Edinburgh, Benmore, Logan and Dawyck.

Doctor Fungus

<http://www.doctorfungus.org>

Doctor Fungus, claims to be your on-line reference to all things mycological! Gives information about fungal infections and mycology in general. This web site "is dedicated to timely dissemination of information about fungal infections via the world-wide web" and is supported by Merck and Pfizer.

Toxins of fungi

<http://www.cfsan.fda.gov/~mow/intro.html>

The Bad Bug Book (more formally the "Foodborne Pathogenic Microorganisms and Natural Toxins Handbook") produced by the Center for Food Safety & Applied Nutrition of the U.S. Food & Drug Administration.

Toxins

<http://toxnet.nlm.nih.gov/>

TOXNET is a website giving access to a cluster of databases on toxicology, hazardous chemicals, and related topics that provide factual information on toxicity and other hazards of chemicals.

Toxins and Carcinogens

<http://ehis.niehs.nih.gov/roc/>

Authoritative information about numerous toxins, carcinogens and mutagens can be found in the Report on Carcinogens, which is produced regularly by the U.S. Department of Health and Human Services in the Public Health Service National Toxicology Program. The current report can be accessed and downloaded from this link.

Poisonous fungi

<http://www.rbgkew.org.uk/publications/>

Poisonous Plants and Fungi in Britain and Ireland (2nd Edition) is a CD-ROM available from the Royal Botanic Gardens at Kew. Written by E.A. Dauncey, T.G.J. Rayner and D.A. Shah-Smith with Toxicity Monographs by N.S. Bates and others from the National Poisons Information Service (London) and the Medical Toxicology Unit of Guy's & St Thomas' Hospital

Trust. This fully interactive CD-ROM will aid identification, and helps to distinguish between edible and poisonous native and introduced fungi. For each plant and fungus there are photographic images, step-by-step keys to quick identification and detailed toxicity information. It is an invaluable resource for medical professionals treating cases of suspected poisoning, as well as people concerned with preventing poisonings occurring such as parents, local authority workers, nurserymen, garden managers, growers and gardeners. Order direct from RBG (Kew). ISBN 1 900347 92 X. Priced at £39.95 (in 2002).

#### Candidiasis

<http://www.projinf.org/fs/candida.html>

Information about oral candidiasis issued by Project Inform of San Francisco, CA.

#### Aspergillus Web Site

<http://www.aspergillus.man.ac.uk>

This site offers a wide range of information about pathogenic Aspergilli and the diseases they cause. It is designed to provide information for clinicians, scientists and patients. There is a section devoted to the needs of patients suffering from the effects of Aspergillus. The site includes laboratory protocols, treatment information, DNA sequence data, a comprehensive bibliographic database, image library and discussion groups. You are required to register (free of charge) to gain access to the information contained in the rest of the site.

#### Aspergillus for patients website

<http://www.aspergillus.man.ac.uk/patients/>

Specifically intended for people (and their relatives and friends) who suffer from, or who think they may suffer from the fungus called Aspergillus. The fungus may be causing an infection, an allergic response or simply causing a nuisance in some other way.

#### Medicinal mushrooms

[http://sci.cancerresearchuk.org/labs/med\\_mush/med\\_mush.html](http://sci.cancerresearchuk.org/labs/med_mush/med_mush.html)

"Medicinal mushrooms: their therapeutic properties and current medical usage with special emphasis on cancer treatments". A major review by Prof. John E. Smith, Neil J. Rowan and Richard Sullivan. The monograph is a comprehensive overview of the subject from the technology of cultivation, extraction and chemistry of medicinal mushroom bioactive compounds, to the clinical evidence that suggests an important therapeutic role in cancer, and other major diseases. Cancer Research UK commissioned the review. You can download the entire monograph from this site (about 250 pages), or request a CD copy.

#### Moulds in the environment

<http://www.cdc.gov/mold/default.htm>

Authoritative information about common indoor moulds, including *Stachybotrys*, on the website of the Air Pollution and Respiratory Health Branch of the United States' National Center for Environmental Health.

#### Mold, Moisture, and Your Home

<http://www.epa.gov/iaq/molds/moldguide.html>

This Guide (full title "A Brief Guide to Mold, Moisture, and Your Home") provides information and guidance for homeowners and renters on how to clean up residential mold problems and how to prevent mold growth. It was produced by the United States Environmental Protection Agency. The related EPA publication, "Mold Remediation in Schools and Commercial Buildings", is also available at this website.

## The Natural Environment, Biodiversity and Identification

#### Species2000 - Indexing the world's known species

<http://www.sp2000.org/>

Species 2000 has the objective of enumerating all known species of plants, animals, fungi and microbes on Earth as the baseline dataset for studies of global biodiversity. It will also provide a simple access point enabling users to link from here to other data systems for all groups of organisms, using direct species-links. Users worldwide will be able to verify the scientific name, status and classification of any known species through species checklist data drawn from an array of participating databases.

#### Global Biodiversity Information Facility

<http://www.gbif.org/>

This website provides first hand information about the current state of the Global Biodiversity Information Facility (GBIF), an international initiative to produce a network of biodiversity databases and information technology tools.

#### Fungal databases

<http://nt.ars-grin.gov/fungalatabases/index.cfm>

Databases developed at the U.S. National Fungus Collections provide access to information about fungi, primarily those associated with plants or otherwise of agricultural importance. These databases are maintained and expanded by members of the Systematic Botany and Mycology Laboratory (SBML), U.S. Department of Agriculture, Agricultural Research Service.

#### MycoKey

<http://www.mycokey.com>

MycoKey is a synoptic key for determination of fungal genera. This version includes 282 genera and about 1150 illustrated species. It covers the genera of basidiomycota with stem and cap (Agarics, Boletes etc.), polypores and club fungi from Northern Europe (i.e. Europe north of the Alps). Site maintained by Jens H. Petersen and Thomas Læssøe.

#### MykoWeb

<http://www.mykoweb.com>

The biggest attraction at MykoWeb (compiled by Michael Wood) is The Fungi of California, an expanded version of the former "Fungi of the San Francisco Bay Area". which contains descriptions of over 350 species of fungi found in California, illustrated with over 1500 photographs. Also included is a Glossary of mycological terms and a Bibliography of useful mycological references.

#### Truffles

<http://www.truffle.org>

The truffle.org web site is aimed to promote research on truffle and ectomycorrhizae. At present the main emphasis of this project is to provide methods for the identification of truffles both at the morphological and molecular level. Here you can find keys, images and much more. The main part of the data organized in this site have been produced by the project "Tuber: biotecnologie della micorrizzazione" jointly sponsored by 10 Regioni and the National Research Council (CNR) of Italy.

#### Coprinus site: all about Inkcaps

<http://www.homepages.hetnet.nl/~idakees/index.html>

Coprinus "Monograph" style site, including the computer id-program DetPro.Exe, lots of photographs and other information. Maintained by Kees Uljé who lives in Alphen aan den Rijn, The Netherlands.

#### Phallus - A Mycological Voice From The Past

<http://www.collectivesource.com/hadrianus>

The oldest writing on a specific species of fungus was published in 1564 by a Dutch botanist called Aadrian DeJonghe (latinized to Hadrianus Junius).

#### Freshwater Ascomycetes

<http://www.life.uiuc.edu/plantbio/fungi/>

Database compiled and maintained by Carol Shearer.

#### Mycology.Net

<http://www.mycology.net/index.html>

The Mycology.Net aims to provide online data on the biodiversity of fungi, mycological institutions, journals, databases (link sections) and persons engaged in mycology. At the moment content is limited and the site is distant and unfriendly.

#### Wood Decay

<http://www.forestpathology.org/>

One of the topics in the online textbook "Forest & Shade Tree Pathology" by James J. Worrall, a Plant Pathologist with the USDA Forest Service.

#### Phycomyces

<http://www.es.embnet.org/~genus/phycomyces.html>

The Phycomyces website provides information for the general public with interest in the biology of Phycomyces and an electronic forum for the rapid exchange of ideas and new experimental results for the scientists involved in Phycomyces research.

#### Tom Volk's Fungi

[http://botit.botany.wisc.edu/toms\\_fungi/](http://botit.botany.wisc.edu/toms_fungi/)

You should be able to find everything you wanted to know about fungi by clicking on the on the links on the images or on the text links. Tom promises to leave his pages at this site for a long time, and points out that you can always find them by typing <TomVolkFungi.net> (no spaces) into your browser.



## Societies and Institutions

The United Kingdom National Culture Collection (UKNCC)

<http://www.ukncc.co.uk>

The United Kingdom National Culture Collection (UKNCC) co-ordinates the activities, marketing and research of the UK national service collections of microbial organisms. Information on UKNCC services and on other collection activities may be found through this website.

CABI Bioscience - UK Centre, Egham

[http://www.ukncc.co.uk/html/members/cabi/cabi\\_info.htm](http://www.ukncc.co.uk/html/members/cabi/cabi_info.htm)

Formerly the International Mycological Institute (IMI), CABI BIOSCIENCE UK is part of an intergovernmental organisation established by treaty dedicated to improving human welfare through the application of scientific knowledge in support of sustainable development world-wide, with emphasis on agriculture, forestry, human health and conservation of natural resources, and with particular attention to the needs of developing countries. The CABI Genetic Resources Collection (GRC) is tasked with the collection of organisms to provide a resource for the scientific programmes of CABI. The GRC accesses filamentous fungi and yeasts, plant pathogenic bacteria, nematodes and biocontrol agents belonging to these groups. As well as live material the GRC is backed by over 370 000 dried specimens, including the National Collection of Wood Rotting Fungi.

Kew Mycology

<http://www.rbgekew.org.uk/scihort/mycolexp.html>

For more than a century mycologists at Kew have helped to increase our knowledge of the fungal kingdom by identifying and describing new families, new genera, new species, in Britain and overseas. Each year over 4,000 specimens are received at Kew from more than 30 countries around the world for expert determination. Kew mycologists have pioneered research into tropical and equatorial fungi from the Amazon to Australia, working in collaboration with overseas research institutes and universities. Following our move to more spacious premises, we can also offer improved research facilities for mycological visitors from abroad.

Royal Botanic Garden, Edinburgh

<http://www.rbge.org.uk>

The Royal Botanic Garden Edinburgh was founded in the 17th century on an area the size of a tennis court. It now extends to 31 hectares (at Inverleith in Edinburgh), incorporates Specialist Gardens at three very different locations in Scotland (the Younger, Logan and Dawyck Gardens; respectively 50ha, 12ha and 25ha), and is one of the world's finest botanic gardens.

Plantlife

<http://www.plantlife.org.uk/>

Plantlife works with other organisations to promote plant conservation both in the UK and abroad. In particular, Plantlife convenes and administers the Fungus Conservation Forum, which promotes and coordinates the conservation of fungi in the UK.

Fungal Genetics Stock Center

<http://www.fgsc.net>

The Fungal Genetics Stock Center (FGSC) was founded in 1960 to serve as a culture collection for *Neurospora* strains. Today, FGSC includes many thousands of *Neurospora* and *Aspergillus* cultures, and representatives of other fungi, including *Magnaporthe grisea*. Additionally, the FGSC stores and supplies cloned genes, gene libraries, and EST libraries for *Neurospora*, *Aspergillus*, and *Magnaporthe*, and molecular tools for working with them.

Mushroom Bureau

<http://www.mushroom-uk.com/>

The Mushroom Bureau is responsible for the generic publicity of all fresh cultivated mushrooms sold in Britain. It is funded voluntarily by mushroom growers and allied trades from the United Kingdom, the Republic of Ireland and Holland. The Mushroom Bureau is responsible for the publicity for cultivated mushrooms. The Bureau works closely with the food and cookery writers on women's magazines, national and regional newspapers, television and radio, and the trade press. The Bureau has an excellent photographic library of cultivated mushrooms and mushroom recipes and a number of free recipe leaflets.

Mushroom Growers' Association

<http://www.mushroomgrowers.org/>

Mushroom Growers' Association for Great Britain and Northern Ireland was established in 1945 as an autonomous specialist branch of the National Farmers' Union. The MGA is the central reference point for all matters concerned with the commercial production of cultivated mushrooms in Great Britain and Northern Ireland. Mushrooms are the most valuable horticultural crop sold in this country. The white *Agaricus bisporus* mushroom accounts for 95% of the total market. The remaining 5% is shared between the cultivated brown/chestnut/portabella mushroom and the cultivated blewit, enoki, horse, hon-shimeji, oyster, and shiitake mushrooms.

Society for General Microbiology web site

<http://www.sgm.ac.uk/>

The SGM has been established for over 50 years, promoting and supporting the art, science and significance of microbiology and associated subjects worldwide. Here you will find information about all the Society's activities, and about the importance of microbiology in today's world.

British Society for Medical Mycology

<http://www.bsmm.org/main.htm>

The purpose of the British Society for Medical Mycology is to advance education and promote research in all branches of medical and veterinary mycology, and to disseminate the results of such research for the public benefit. The Society sponsors symposia, meetings, training courses and working parties on topical problems.

British Society for Plant Pathology

<http://www.bspp.org.uk>

The British Society for Plant Pathology (BSPP) was founded in 1981 for the study and advancement of plant pathology. The BSPP welcomes members from all over the world and from all branches of plant pathology and supports the professional interests of plant pathologists worldwide and provide information and communicate with our members via a newsletter, website and annual meeting.

Mycological Society of America

<http://www.msafungi.org/>

The Mycological Society of America is a scientific society dedicated to advancing the science of mycology - the study of fungi of all kinds including mushrooms, molds, truffles, yeasts, lichens, plant pathogens, and medically important fungi.

North American Mycological Association

<http://namyco.org/>

NAMA aims "to promote, pursue, and advance the science of mycology". The North American Mycological Association is an organization of individuals, families and local clubs dedicated to the study and enjoyment of mushrooms. NAMA's publications include The Mycophile, bimonthly newsletter; an annual journal, McIlvainea; and an annual directory. Recent incidents of mushroom poisoning have inspired the publication and distribution of a warning poster.

Federation of European Microbiological Societies

<http://www.fems-microbiology.org/>

The Federation of European Microbiological Societies is devoted to the promotion of microbiology in Europe. FEMS is currently linking 42 microbiological societies, encouraging joint activities, facilitating communication among microbiologists, supporting meetings and laboratory courses, providing fellowships, and publishing journals and books.

French Société Mycologique de France

<http://www.mycofrance.org/>

Fondée en 1884, notre association a pour but l'étude des champignons sous tous ses aspects. Nos prestations intéressent les scientifiques dont nous publions les écrits, ainsi que les amateurs que nous conduisons sur le terrain pour y herboriser et ramasser des champignons en toute quiétude. Nous proposons à nos membres tout un éventail d'activités.

France: Société Mycologique du Nord de la France (SMNF)

<http://www2.ac-lille.fr/myconord>

Créée en 1967, la Société Mycologique du Nord de la France (SMNF) est une association scientifique régionale (Nord et Pas-de-Calais), à but non lucratif, qui regroupe plus de 300 personnes s'intéressant aux champignons pour les reconnaître dans la nature, se familiariser avec leurs propriétés, leur classification, leur rôle, leur protection et leur éventuelle comestibilité.

Netherlands Mycological Society

[http://www-mlf.sci.kun.nl/mlf/nmv/main\\_e.htm](http://www-mlf.sci.kun.nl/mlf/nmv/main_e.htm)

The Netherlands' Mycological Society (NMV) was founded in 1908 with the purpose to promote mycology. The Society currently has about 650 members, who occupy themselves with mycology on different levels -- novice or advanced, amateur or professional. The Society publishes Coolia.

The Netherlands: Mushroom Experimental Station at Horst

<http://www.ppo.dlo.nl/ppo/Sectoren/Paddestoelen.htm>

Het team Paddestoelen van Praktijkonderzoek Plant & Omgeving (PPO) ondersteunt bedrijven met praktijkgericht onderzoek, in de hele productieketen van paddestoelen. Hierbij houden wij rekening met maatschappelijke ontwikkelingen op het gebied van duurzame productie en voedselveiligheid. Het onderzoeksteam beschikt over faciliteiten zoals laboratoria, tunnels voor substraatbehandeling en een proefkwekerij.

Spanish Associació Micològica Joaquim Codina (Universitat de Girona)

<http://www.grn.es/amjc>

La Associació Micològica Joaquim Codina, fue fundada en 1995, pero sus miembros ya formaban parte de la Sección de Girona de la Societat Catalana de Micologia desde el año 1987. In Spanish and Catalan.

Italian Società Italiana di Patologia Vegetale

<http://www.agr.unipi.it/sipav>

La Società Italiana di Patologia Vegetale (S.I.Pa.V.) è stata fondata nel 1992 a seguito dello scioglimento della Società Italiana di Fitoiatria (S.I.F.) e della Associazione Fitopatologica Italiana (A.F.I.).

Spain: Micología do Oriente Ouresan

<http://www.valdeorras.com/micologia>

Images and information about Spanish fungi.

Belgian Cercle de Mycologie de Mons

<http://users.skynet.be/deneyer.mycology>

The Circle of Mycology organizes various activities, mainly in Wallonia, such as: guided excursions for members and for schools, and weekends of forays and meetings on mycology. The Circle organizes a display of fresh mushrooms from the area of Mons in October. The website's home page is a nice audiovisual experience. Although, if your computer outfit is as dozy as mine, you'll have to click the "refresh" button to get things started.

## Shops and Publishers

Fifth Kingdom

<http://www.mycolog.com/>

Mycologue Publications sells Mycological books, CD-ROMs and databases all about fungi. This is the home of Bryce Kendrick's The Fifth Kingdom – the CD is the world's first comprehensive CD-ROM about fungi, and the textbook is, in my opinion, the best available to students at the moment. Buy the book AND the CD and you'll be really well informed. The Fifth Kingdom CD-ROM includes the full text of the book and is lavishly illustrated with over 3000 pictures and videos of fungi. Explore the website and find over 800 images of fungi online illustrating mushrooms, mycorrhizas, medical mycology, yeasts, lichens, food spoilage, fermented foods, plant diseases, symbioses with animals, and edible, poisonous, and hallucinogenic fungi. A mycological feast!

Mycologue

<http://www.mycologue.co.uk>

Located in London, Mycologue styles itself as the internet mushroom shop, offering a unique selection of products that will delight everyone interested in collecting, eating, cultivating or just appreciating mushrooms. You'll also find useful information and great links (including the BMS!).

MycologyMiscellany: a website for mushroom fans

<http://www.mycologymiscellany.co.uk>

MycologyMiscellany promotes good quality, practical, and fun items for mycophiles. Items in stock include baskets, knives & outdoor clothing; hand lenses; illustrated mushroom playing cards; stencils; keyrings & lightpulls; ornamental mushrooms; books, cards and stationery; household items and gift sets

Guide to Fungi on CD

<http://www.first-nature.com/fungi/index.htm>

The "First Nature" Multimedia Guide to Fungi features over 1000 pictures with details of hundreds of beautiful and fascinating mushrooms and toadstools on an interactive CD-ROM for PCs with Internet Explorer. Well worth buying. The website is well worth visiting for the numerous pictures of fungi as well as many other groups of organisms – insects, fish, amphibians, reptiles, birds, bats, land mammals, wild flowers and trees.

Fungi Perfecti

<http://www.fungi.com/>

Could this be the ultimate mushroom shop? "Fungi Perfecti® is a family-owned, environmentally friendly company specializing in using gourmet and medicinal mushrooms to improve the health of the planet and its people. We are leaders in a new wave of technologies harnessing the inherent power of mushrooms and fungal mycelia worldwide.

