

CHANTERELLES...BOLETES...TRUMPETS...CHICKENS...ARE YOU READY?

NJMA news

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THE OFFICIAL NEWSLETTER OF THE NEW JERSEY
MYCOLOGICAL ASSOCIATION



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DEADLINE:
DUES:

10th OF EACH EVEN-NUMBERED MONTH
CALENDAR YEAR: \$10 EACH OR \$15/FAM
Mail checks (payable to NJMA)
TO: Grete Turchick,

* * * * *

Craterellus fallax

CALENDAR

NJMA ACTIVITIES

JUL 09 Meadow Woods
JUL 23 Stephens State Park
AUG 13 Holmdel Park
AUG 20 Mahlon Dickerson Reservation
OCT 08 Fungus Fest at SCEEC

JUL 30 Culinary Picnic
NOT POTLUCK
call Maurice Russi

for recipes
call D. Smullen

for directions

OUT IN THE WIDE, WIDE WORLD:

JULY 27-30 Adirondack Mushroom weekend
AUG 03-06 Samuel Ristich Annual Northeast Foray (NEMF), SUNY-Oswego, NY
AUG 24-27 NAMA Foray at Bemidji, Minnesota
AUG 24-27 Telluride, CO

MAY 7th - Morel Foray Princeton Water Works

-Dorothy Smullen

Many thanks to leader Bob Hosh for bringing most of the forayers good luck in finding some morels. Special thanks goes to Susan Hopkins who treated everyone to a taste treat after the foray. Susan chopped some morels she had collected earlier in Northern N.J. She added some shallots and Bob sauteed them on his camp stove. The mixture was served on toasted French bread slices. What a delightful way to end a wonderful foray. Delicious!

Wild Foods Foray Named Annual Bob Peabody Foray

On Sunday, June 4th, the Wild Foods Foray was named the Annual Bob Peabody Foray to honor Bob for all his years of dedication to the club in this event and many other ways - as officer, label printer, fungus fest speaker, historian, PEEC weekend coordinator and more.

In 1977, during Bob's first year as club president, he initiated the first Wild Foods Foray. The leader was Gary Lincoff, the place was Sundance Stables in Hackettstown. Everyone had such a good time it was decided to make it an annual event. Newsletter accounts of the foray describe the cars being moved into a circle to keep out the horses. The following year, Bob Peabody, Erica Frank, Irma Chaiten and Jim Richards were leaders. In 1979, Bob and Gary were co-leaders assisted by Grete Turchick who remained in charge of the cooking.

Sometime in the 80's, the location was moved to Jenny Jump. Once in 1988, Bob Hosh led the Wild Foods at Cheesequake, but since then it has been at Jenny Jump with the two Bobs.

A banner and a poster were presented to Bob Peabody to commemorate the event. The walk was open to members and the general public in honor of National Trail Days (June 3 and 4).

Some of the plants discussed by Bob were dandelion, plantain, violets, clover, maple-leaf viburnum, wineberries, sassafras, wild grape, fern fiddleheads, false Solomon-seal, Jack-in-the-pulpit, skunk cabbage, coltsfoot, jewel weed, spicebush, garlic mustard,

mayapple, dock, winter cress, rose hips, burdock, gill over the ground, raspberries, yarrow, sumac, elderberry, cleavers, mullein, peppergrass, wild strawberries, thistle, oxalis and American Chestnut.

Mushrooms found included *Collybia*, *Pluteus*, *Stropharia*, *Stereum ostrea*, *Agrocybe*, *Tricholomopsis*, *Helvella acetabulum*, wood ears, turkey tails and old puffballs.

After the walk, members and guests shared in the following:

Poppyseed lemon cake -Barbara Ecker

Fruit salad - Susan Hopkins

Cattail, onion and sweet potato roast with creamy dill orange sauce

-Brian Carroll

Wild green salad and pickled brussel sprouts -Alex Adams and Carol Titus

Raisin-Walnut and Sourdough breads and Wine cap pate-Jim Richards

Morel soup and cole slaw- Grete and Walter Turchick

Mushroom pie - Sandra Grassby

'Himmel und Erde' with morels and crepe-omelets (cromelets) of milkweed flower buds, wild leek and horse mushrooms-

-Bob Hosh

Shiitake and wild leek pasta salad-

-Dorothy Smullen

Pasta Salad - Nancy and Frank Addotta

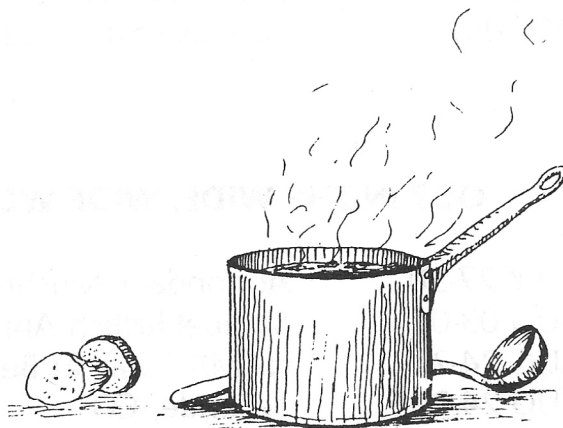
Wild Strawberries-Walter Buczynski

Breads - Grace and Lebo Barbagallo

Fruit Salad - Ed Hoge and Audrey VanBuskirk

Amaranth-bolete casserole -Hanna T.

Salads- Paul Meyer-



Hypomyces on Agarics

Lynn Sherman

Many of us are familiar with one or two species of *Hypomyces* that occur on gilled mushrooms, the most celebrated being *Hypomyces lactiflorum*, the lobster mushroom, which infects members of the *Russulaceae* producing bright reddish, deformed specimens sought after for their gastronomic value. The latest issue of *Mycologia* (November-December 1994) contains the fourth in a series of articles by Clark Rogerson and Gary Samuels on this genus of mycoparasites. Their previous articles have dealt with *Hypomyces* occurring on discomycetes, on boletes and on *Aphylliphorales* (including polypores and telephores). In this latest article only the species found on gilled mushrooms are covered. In addition to the more familiar species such as *H. hyalinus* found on *Amanita*, *H. lactiflorum* found on *Russula* and *Lactarius* and *H. luteovirens* found on *Russula*, there are an additional ten species included. The following table contains extracted information regarding the agaric hosts and the general appearance of the infected mushroom for all thirteen species of *Hypomyces* covered in the article.

Species of <i>Hypomyces</i>	Host Agaric	Appearance on Infected Mushroom	Found in NJ or USA?
<i>armeniacus</i>	<i>Russulaceae</i>	host is completely disintegrated, appears as apricot orange mass on ground	Eastern US NJ
<i>banningiae</i>	<i>Lactarius</i>	white to buff covering on gills	Eastern US Stokes SF - NJ
<i>hyalinus</i>	<i>Amanita - rubescens, muscaria, frostiana</i>	white, tinged pinkish to brownish, covering host and preventing expansion of pileus	Eastern US NJ
<i>lactiflorum</i>	<i>Russulaceae</i>	bright orange to red, covering entire host	North America NJ
<i>lateritius</i>	<i>Lactarius</i>	tawny-ochraceous through brick-red to reddish black, restricted to gill surfaces	North America NJ
<i>lithuanicus</i>	<i>Lactarius</i>	cream to cinnamon, restricted to gill surfaces, best distinguished from <i>lateritius</i> by red to purple color of perithecia in KOH	North America NJ - not reported
<i>luteovirens</i>	<i>Russula</i>	bright yellow turning green and finally blackish green, covering the gills and sometimes the stipe and pileus	North America NJ
<i>macrosporus</i>	<i>Russulaceae</i>	white to buff, covering the gills and stipe of the host, microscopically similar to <i>lactiflorum</i> , possibly an "albino form" of that species	North America NY, MD, MI NJ - not reported
<i>odoratus</i>	<i>Aphylliphorales</i> and agarics	white to rosy lilac with red-orange perithecia, perithecial form has not yet been found on agarics	North America NC, PR, Cuba NJ - not reported
<i>petchii</i>	<i>Russulaceae</i>	apricot with orange perithecia, covering gills and part of stipe	Only reported in New Zealand
<i>porphyreus</i>	<i>Leptonia</i>	brick-red, covering the upper surface of pileus, all US collections have been on <i>Leptonia strigosissima</i>	All US reports from MI, has also been found in Europe
<i>succineus</i>	<i>Pholiota</i>	white to cream, covering pileus, gills and stipe	One collection from NY
<i>tremellicola</i>	<i>Crepidotus, Pleurotus</i>	white, covering the host, sometimes spreading to adjacent wood	North America NJ

Pariahs of the Fungal World, Lichens Finally Get Some Respect

By CAROL KAESUK YOON

TO most who venture out of doors, lichens seem familiar, their lacy gray-green dressings everywhere adorning tree trunks and rock faces. Yet in spite of their ubiquity, these delicate, often strikingly beautiful growths have remained largely mysterious to biologists, with even their evolutionary origins a well-kept secret until now.

Not one organism but two closely entwined, every lichen is a symbiotic pairing of a fungus with an alga. In part because of their intimate association with algae, the lichen-forming fungi have been difficult to study and even harder for researchers to classify, leaving them to lump these species into a single group seen as not quite like the rest of the fungi. Even the scientists who study lichens are relegated to a separate discipline, with scientific societies and meetings apart from the rest of the world's fungus biologists.

But now, much to the surprise of fungus researchers and to the delight of those who study and champion lichens, an international team of scientists has brought these fungal pariahs back into the fold.

In a study in the current issue of the journal *Science* based on DNA data, researchers have devised an evolutionary family tree showing lichen-forming fungi on branches scattered all over, arising five times out of the heart of more familiar, entirely unlichenized groups of fungi.

"It's a remarkably important paper," said Dr. William Culberson, Hugo L. Blomquist Professor at Duke University in Durham, N.C. "It gives us the first clue as to the origin of this major group of organisms. It's surprising. If you asked someone studying fungal disease organisms what the fungi that they study are most closely related to, I don't think anybody would



Sylvia Duran Sharnoff

The lichen *Hypogymnia apinnata usnea* on fir bark.

have said lichens."

Rather than being oddities, lichens, it seems, are simply cousins of better known fungi like brewers' yeast, tasty morel mushrooms, and those that cause Dutch elm disease and *Pneumocystis carinii* pneumonia, a leading killer of AIDS patients. The only difference is that these lichen-forming cousins have chosen a new way to make a living: co-habiting with algae. Researchers say the new work explains why some lichens look so much like more recognizable fungi,

sprouting up very typical mushroomlike structures or the tiny baseball bat-shaped clubs of the coral fungi.

Dr. Vernon Ahmadjian, a lichenologist at Clark University in Worcester, Mass., said: "It's an excellent piece of work. My feeling all along has been that lichens have been misunderstood and poorly appreciated. They're one of the big neglected groups in biology."

Researchers say the new family tree should provide a framework that biologists can use to begin sorting out the complex biology of lichens.

To build their tree, the team of four researchers determined the DNA sequence for one particularly slowly evolving gene in 17 species of fungi and compared those to sequences in 58 species from other researchers' studies. The final list of 75 included 10 lichen-formers as well as a number of plant-attacking fungi, human-disease fungi and fungi that form symbioses with plant roots. The sequences used were from the

Lichens show that
the world isn't
progressing toward
greater kindness.

small subunit ribosomal DNA that produces a critical part of the molecular machinery used in producing proteins.

Dr. Culberson, who along with his wife, Dr. Chicita Culberson, a research professor of botany at Duke, has been studying relationships within the lichens, said the new study has provided answers previously unattainable because of the peculiar difficulties of lichens. With few distinguishing characteristics of shape or structure, the lichens had defied comparison with the rest of the fungi. In addition, researchers say the work classifying fungi often involves culturing them, a task that can be impossible with the lichenized fungi.

Dr. Amy Rossman, director of the National Fungus Collections at the Agricultural Research Service, a unit of the Department of Agriculture in Beltsville, Md., said that it should not be all that surprising to researchers that lichens, with their ability to live with algae, are scat-

tered across the fungal family tree, since fungi are in general symbiotic, living in or on other organisms.

In fact, because fungi are so notoriously intermixed with other organisms, researchers often worry whether they are sequencing fungal

DNA rather than DNA from another closely associated creature.

In particular, lichenized fungi are often quite tenderly entwined with their algae. Sometimes the algae can be found layered just so inside a kind of fungal tissue sandwich. With just

enough but not too much light penetrating, the properly exposed algae efficiently photosynthesizes food for itself and its fungus. In other cases fungi grow right in and through the cell walls of their algae, tissues entirely enmeshed and essentially inseparable as the fungi rend their meals forcibly from their green partners.

Dr. Paula DePriest, a lichen specialist at the National Museum of Natural History of the Smithsonian Institution in Washington and an author of the study, said the researchers got around the problem by using very specific molecular tools that allowed them to fish out only fungal

Lichens are simply cousins of better-known fungi.

and not algal DNA from their samples. In some cases, they were also able to take advantage of tiny bits of tissue on the lichens which were purely fungal.

Dr. DePriest worked with Dr. Andrea Gargas, also of the National Museum, Dr. Martin Grube of the Karl Franzens University in Graz, Austria, and Dr. Anders Tehler of Stockholm University in Sweden.

Lichen biologists, who have long insisted that lichens are good, normal fungi like the rest, are celebrating a kind of "I told you so" party of their own as lichens grab a share of the fungal limelight. For these biologists acting as lichen cheerleaders is as important as doing their research, since they are given to writing articles with titles like "Lichens Are More Important Than You Think," and reeling off statistics on how lichens dominate 8 percent of the world's terrestrial habitats and can live in arctic, antarctic, desert, tropical and even aquatic environments.

The paper should also come as a relief to biology teachers who have long found lichens problematic, hybrid beasts tossed here and there in a class syllabus, sometimes included not with the fungi at all but instead

with plants like mosses also found on tree trunks and rock faces.

"A course is either about algae or fungi, darn it, and so people don't want to talk lichens," said Dr. John Taylor, a fungal evolutionary biologist at the University of California at Berkeley who explained that lichens seem always to get shunted aside. "Maybe 20 percent of all described

fungi are lichens and most of us who teach about fungi don't give 20 percent of the time to lichens. Lichens get short shrift and this shows pretty clearly that you can't do that."

At the same time, the new fungal family tree is helping overturn an evolutionary truism, one untested until relatively recently by hard data. According to the longstanding idea, over time parasitic interactions should evolve to a greater benignity and eventually to mutualism. Parasites should become less harmful, the thinking goes, so as not to do in their hosts.

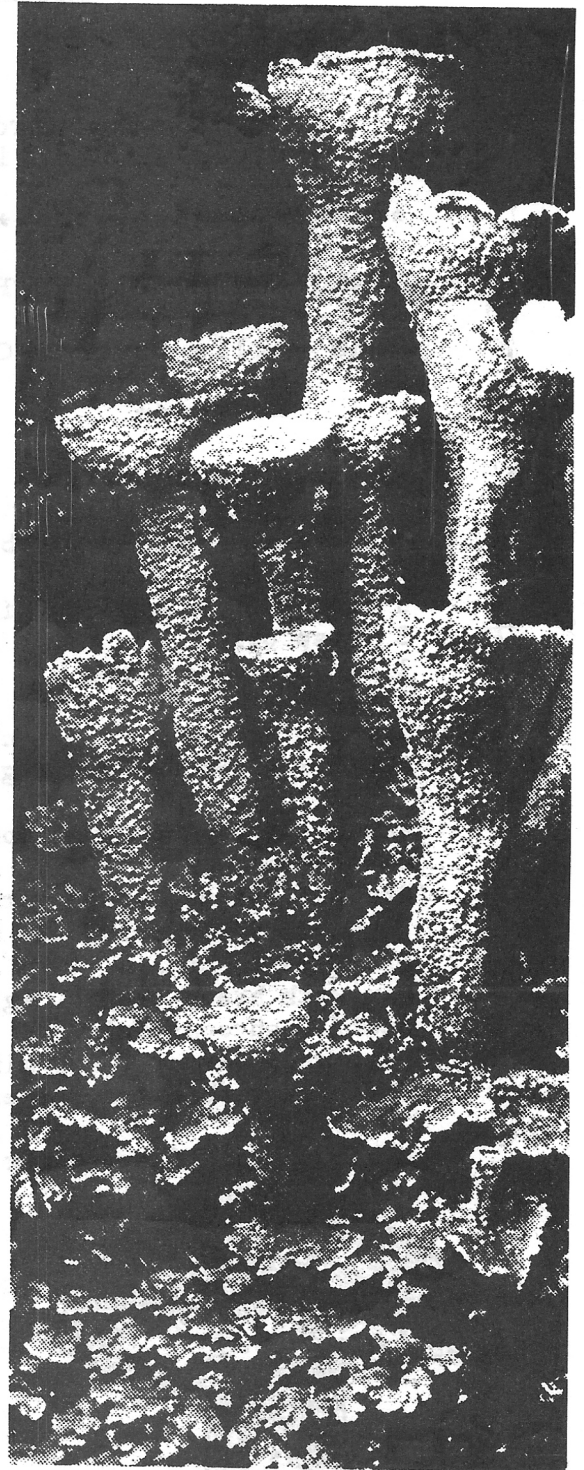
But Dr. Gargas says the new family tree indicates that at least in this group, the idea does not hold true. All different sorts of life styles, both malicious and benevolent, can be found early and late in the history of the fungi. Parasites, it appears, can evolve to become mutualists but can just as easily turn back again towards parasitism in a world without any hint of a progression toward greater kindness.

While the new study suggests at least five separate origins for lichens over the eons of evolution, researchers say it is by no means the final count and biologists' understanding of the history of lichenization is very likely to continue to evolve as more data come in.

Dr. Mitchell Sogin, director of the program in molecular evolution at the Marine Biological Laboratory at Woods Hole, Mass., praised the work but noted that while many of the branches in this new family tree seem quite decisively determined, others will likely change as more data come in.

Dr. Joseph Spatafora, a fungal evolutionary biologist at Oregon State University in Corvallis, along with collaborators at Duke University, is in the midst of producing one of those potentially tree-altering new studies. He and his colleagues are examining a smaller portion of the fungus family but are including many more lichen-forming species. He said that his group's work could well suggest a reinterpretation of the number of times lichens have branched off the fungus family tree, but that at this stage of the game such changes are to be expected.

"This is really the initial stage of integrating lichenized and nonlichenized forms," he said of the Science study. "It's the pioneering research."



The lichen *Cladonia carneola*,

Sylvia Duran Sharnoff

MICHIGAN MUSHROOM HUNTERS' ASSN. 9/93

MUSHROOM RECIPES FOR EACH SEASON:

by Arnold Koller

Back to some hardy, wholesome cooking for the Fall. These two recipes should fit into this category.

ITALIAN SAUSAGE STUFFED MUSHROOMS
"The Garlic Lover's Cookbook"

- 18 to 20 large mushrooms
- 1/2 lb Italian sausage (regular or fennel, bulk type)
- 1/2 cup chopped onion
- 3 cloves fresh garlic, minced
- 3 tblsp oil
- 1/4 cup bread crumbs
- 1 egg
- 1/4 cup grated Parmesan cheese
- Additional Parmesan for garnish

Remove stems from mushrooms. Chop stems. Brown sausage, onion, garlic and chopped stems in oil. Drain well; cool. Mix with bread crumbs, egg, cheese. Stuff mushrooms full. Bake at 350° for 15-20 min. Sprinkle with extra Parmesan.

Makes approx. 6 appetizer servings.

CEPES PROVENCALS
"Mushrooms Wild & Edible"

- 1 lb firm, fresh Boletes
- 2 tblsp butter
- 6 tblsp butter
- 2 cloves garlic, chopped
- Salt & Pepper to taste
- 2 tblsp fresh parsley, chopped
- French or Italian bread, sliced

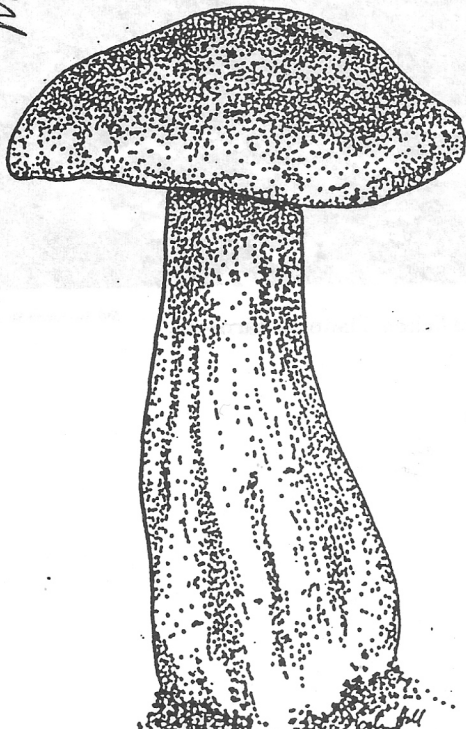
Clean and slice mushrooms. Then cook them in 2 tblsp butter, uncovered, until mushrooms just begin to wilt (2-3 minutes)

Remove mushrooms from pan, drain. Add drained, soft mushrooms to remaining butter, which has been melted and is hot. Saute, stirring briskly for another 2-3 minutes.

When slices just begin to brown on edges, add garlic and continue cooking and stirring until the mushrooms are well browned and garlic is cooked.

Season with salt and pepper, sprinkle with parsley. Serve on slices of hot bread.

Serves four as an appetizer.



NEW BOOKS reviewed by Gary Lincoff

GROWING GOURMET & MEDICINAL MUSHROOMS

Author : Paul Stamets

Publisher : Fungi Perfecti and Ten Speed Press

Pages, etc. : 584 pages, 393 photographs, 59 color plates

Cost : \$49.95 + \$5 for shipping

Make checks payable to Fungi Perfecti; credit cards accepted

Order information : Fungi Perfecti, P.O. Box 7634, Olympia, Wash. 98507.

Signed copies shipped out on all order before January 1, 1994.

Review : This is the best and most comprehensive guide to growing mushrooms ever published. But it is much more than a grower's manual: it is a visionary quest - and Paul Stamets is your best possible guide - not just for informing you about growing mushrooms, but for transforming you into a myco-warrior, an active participant in an heroic, Gaian process of planetary healing through mushroom cultivation. This is a sacred text for spiritual growth - an instruction manual for all those seeking (and who is not?) a happier and healthier way of life.

THE BOLETES OF NORTH AMERICA: A Compendium

Author : Ernst Both

Publisher : Buffalo Museum of Science

Pages, etc. : 431 pages; no illustrations (except cover)

Cost : \$10 + \$2 shipping + 8% sales tax (NYS residents)

Make checks payable to Buffalo Museum of Science; credit cards accepted

Order information : Publication Sales Division, Buffalo Museum of Science

1020 Humboldt Parkway, Buffalo, NY 14211-1293

Tel.: 716-896-5200 / Fax : 716-897-6723

Review : A must for bolete lovers! Even if you already have Snell and Dick's "Boleti of Northeastern North America," and, especially, if you have it and other field guides covering boletes, you need this 'bolete compendium'. Arranged alphabetically by species, it covers hundreds of species and disentangles much of the confusion about the names we use for our boletes. For example, it discusses how American authors have understood and misunderstood *Boletus edulis*. A wealth of good info!

TAMING THE WILD MUSHROOM: A Culinary Guide to Market Foraging

Authors : Arleen Rainis Bessette & Alan Bessette

Publisher : University of Texas Press

Pages, etc. : 113 pages, nearly 100 color photos

Cost : \$24.95

Order information : U. of Texas Press, P.O. Box 7819, Austin, TX 78713

Review : This is especially for your friends and relatives who will not eat "wild" mushrooms. It contains recipes for grilled trout stuffed with morels and spring greens, chanterelle popovers, truffle butter, shiitake frittata, etc. Although preparation times are not given, this appears to be a book for busy people: ingredients include processed foods, like cans or cubes of soup. If time permits, modify recipes.

THE SHITAKE WAY: Vegetarian cooking with shiitake mushrooms

Author : Jennifer Snyder

Publisher : The Book Publishing Company

Pages, etc. : 127 pages; no illustrations

Cost : \$7.95

Order information : The Book Publishing Company, P.O. Box 99,
Summertown, Tennessee 38483

Tel.: 615-964-3571 / Fax : 615-964-3518

Review : If you've ever wondered if vegetarian mushroom dishes can be truly tasty, try this book. Recipes include shiitake risotto, polenta with shiitake sauce, gorgonzola-onion shiitake pizza, barbecued shiitake - Japanese style, and mushrooms with duxelles stuffing. There is also a section on the nutritional value of mushrooms and a page by Dr. Andrew Weil on the medicinal properties of shiitake mushrooms.

BRITISH TRUFFLES: A revision of British hypogeous fungi

Authors : D.N. Pegler, B.M. Spooner and T.W.K. Young.

Publisher : Royal Botanic Gardens, Kew

Pages, etc. : 216 pages, B&W line drawings, 12 color and 14 SEM plates

Cost : \$55, including shipping; Visa & Mastercard accepted

Make checks payable to Lubrecht & Cramer

Order information : Lubrecht & Cramer, Ltd., 38 County Rte. 48,
Forestburgh, New York 12777

Tel.: 914-794-8539 / Fax : 914-791-7575

Review : This is for a truffle lover who uses a microscope and wants a modern treatment of hypogeous fungi. More extensive and more technical than Smith, Smith & Weber's 1981 "How to know the non-gilled mushrooms" but lacking some of our better known truffles and truffle-like fungi.

MUSHROOMS IN THE NEWS

From the New Yorker: "Rolywholyover A Circus," opened recently at the Museum of Contemporary Art in Los Angeles and will travel to museums in Houston, New York, Philadelphia and Mito, Japan. This is an immersion in the world of NYMS founder John Cage on his own terms. According to the New Yorker, "all his famous passions--mushrooms, chess, the music of Erik Satie, plants, James Joyce (the word 'rolywholyover' comes from 'Finnegans Wake'), Zen Buddhism, anarchism, nanotechnology, Merce Cunningham, the ideas of Marshall McLuhan, R. Buckminster Fuller, and Thoreau--are in some way represented." Note that mushrooms get the first mention.

The following item from AP, headlined "Best Served in a Petridish," appeared in the New York Times (at the very bottom) on September 3. WEST LAFAYETTE, Ind., Sept 2, (AP)--A 40-pound mushroom that was going to be stored at Purdue University as an educational specimen was instead sauteed in butter and eaten by three scientists because it was too big to fit in a specimen dryer. 'It's edible, you know, so there were three professors up here and they decided to divide it up and eat it,' said Joe Hennen, a professor of botany. He said the polyporus frondous (sic)--or a hen-of-the woods--tasted like common gill mushrooms available in grocery stores but was more earthy."



NEW BOOKS

A Guide to Kansas Mushrooms; by Bruce Horn, Richard Kay, and Dean Abel; Pub. by University Press of Kansas, 2501 West 15th St., Lawrence, KS 66049-3904; 297 pp., Paperback \$19.95, Cloth \$29.95.

The Great Plains seldom come to mind when one thinks of mycological havens, but there are areas in the prairie states that are abundantly wooded and have rich mushroom floras. Kansas is such a state. Richard Kay has compiled a list of 727 mushrooms from Kansas. In *A Guide to Kansas Mushrooms*, 150 species of these are illustrated.

The guide has the usual introductory material. Line drawings are few and include mushroom anatomy and representative spores. Other introductory chapters deal with specifics relating to Kansas fungi or topics not included in other field guides. A chapter presents a brief history of mycology in Kansas. It is interesting to note that early modern studies on Kansas fungi were conducted by Clark T. Rogerson and Robert L. Shaffer, familiar names in mycology. Another chapter deals with Kansas habitats. A table is devoted to the monthly occurrences of the 150 species pictured. Following each species' name are the months of the year in which each has been

found and a designation by one of four letters (A-D) as to whether the fungus is common (A) to distinctly rare (D). Separate chapters are devoted to mushroom photography and microscopy techniques. Both discussions treat these topics in greater detail than one finds in most field guides.

The authors' advise that to identify many fungi, including edibles, one needs to consult technical literature where heavy emphasis is placed on microscopic characters. They give an informative discussion of the parts and usage of the microscope followed by a brief discussion of several microscopic characters; however, the guide does not utilize microscopic characters in the keys and only spore characteristics are in the descriptions.

The back of the book contains 3 appendixes and a glossary. The first appendix is a summary of fungal classification of fleshy Basidiomycotina and Ascomycotina, listing those genera known from Kansas. The second appendix is entitled "A lifelist for the Kansas Mycophile" and lists 548 species alphabetically by genus. The final appendix is an introduction to Latin pronunciation.

The descriptive portion of the guide has a unique title: "An Anthology of Kansas Mushrooms". The key is to the ten orders of Ascomycotina and Basidiomycotina found in the guide. The Agaricales and Aphyllophorales then have keys to families, while the remaining orders key directly to genus-species. While 150 taxa are illustrated, nearly 240 species can be keyed. Taxa in the key but not illustrated are discussed under the most closely related illustrated taxa. Each species is numbered,

allowing easy access from the keys to the description. The photographs are placed next to the descriptions and in general are sharp, of excellent color quality, and illustrate diagnostic features.

Treatment of each species is headed by the scientific name (but no authority), common name, and one or two words regarding the edible/poisonous status. Then comes a discussion of the species: important diagnostic features, ecology, toxicity/edibility notes, and discussion of similar species. Following this is a brief technical description with minimal jargon.

Slightly more than half the total taxa illustrated are agarics and boletes. In comparison, several field guides that I scanned have a higher percentage of these two. The lack of native conifers perhaps accounts in part for the diminished proportion of agarics and boletes represented. Polypores are well represented in the guide, 28 taxa can be keyed. Anyone who has led mushroom walks or has taught a class during dry years knows that polyporaceous fungi may be the only fungi to come in, so it is nice to see so many of these taxa treated in a popular guide.

I highly recommend this book. It is nicely suited for the beginner and has sufficient detail to satisfy the advanced student. Importantly, it introduces the reader to the fungi of Kansas. Even though it is a regional treatment it will be useful in other areas, especially for those living in regions dominated by hardwood forests.

Reviewed by Clark L. Ovrebo

New Printing Available
Mushrooms of Idaho and the Pacific Northwest, Vol. 1:
Discomycetes

Mushroom hunters and enthusiasts will find Dr. Edmund Tylutki's first volume on the Discomycetes an excellent companion to his other popular mushroom book on the non-gilled hymenomycetes. Back in print for the first time since 1979 the Discomycetes is the culmination of over two-decades of study of Pacific Northwest mushrooms. Collectors are advised on when and where to collect mushrooms, how to distinguish mushrooms from toadstools, and on the development and parts of the mushroom. Keys for both the beginning mushroom collector and specialists and handy black-and-white photographs make this pocket-sized volume useful for field identification. Whether you are looking for Pig's Ears or Violet Star Cup or Deer Truffles or Velvety-Black Earth Tongue, you will find this guide an essential item for your mushroom-collecting kit.

Price \$13.95, 136 pages, 79 photographs, glossary, bibliography, index, paper ISBN 0-89301-062-6. From University of Idaho Press. Contact Mitzi Carlson @ 208-883-4907 or FAX: 208-885-9059

— SCMS MUSHROOMER

Armillaria Root Disease, 1991, edited by C.G. Shaw, III and G.A. Kyle, Agriculture Handbook No. 691, U.S. Forest Service. Well this is an unusual title to be in an amateur mushroomer's library because there is far more in this technical volume than you will ever want to know, but it has some very interesting chapters, especially the first chapter on Nomenclature, Taxonomy, and Identification by Watling, Kile and Burdsall. My interest in this tome was sparked in part when I tried to make some sense out of the *A. mellea* complex and the giant Michigan mushroom story.

When I saw a large flush of what I used to call *A. mellea* growing over the exposed roots of a huge sugar maple in my backyard last fall, although overjoyed with yet another mycologic bounty (Honey Tufts) on our place, I became concerned that I might lose this wonderful tree. So the rest of my interest was sparked by chapters on infection and disease development, host stress and susceptibility, and ecology in natural forests. The last chapter on avoiding and reducing losses from *Armillaria* root disease will have my undivided attention. Amateurs who don't mind not knowing what biomass or pseu-

dosclerotial plates mean should be able to use the bulk of the book and indeed find much of it quite interesting. One tidbit that I did not know before for example is that *A. mellea* can be parasitic on *Entoloma abortivum*. Also, plants like certain orchids and Indian Pipe form associations with *Armillarias* which are necessary for growth and reproduction of that species. So *Armillarias* do have their place, not just in your fry pan.

And then I learned things I would just as soon not know. For instance, I used to think I knew how to ID *Armillaria tabescens* and was surprised I couldn't find it in the list. The reason was, it ain't called that any more. The hoi polloi now likes to use the name *Armillaria socialis*! Not only our species and the one called *A. tabescens* in Europe are probably different species! Yikes!

If you would like a copy of this book, I suggest contacting the U.S. Government Printing Office or if a Forest Service office or field station is near you, you might try there. That is how I got mine.

Although technical, the chapter on identification is loaded with ID hints and there are good color photos. It explains why there has been so much taxonomic confusion on this highly polymorphic genus. The authors estimate there must be at least 36 species worldwide within this genus, but the problem is what to call a species. There are "biological" species (based on laboratory studies testing sexual compatibilities) and morphologic species which you are more familiar with. These do not necessarily agree. Incidentally, there is an interesting chapter explaining how these compatibility tests are done. The authors describe many macroscopic and microscopic characteristics needed to identify the individual species and I conclude that the authors do not believe it can be reliably done on macroscopic features alone.

This is not an identification manual, i.e., there is no key or even description of the individual species. It is a very interesting and well illustrated (most in color) manual on the biology and significance of these economically important fungi.

Ohio M.S. :

Bob Burrell

Mushroom Log Jan-Feb. 94



Fungophile
P.O. Box 480503
Denver CO 80248-0503

March 3, 1995

Dear Mycophile:

I would greatly appreciate your publishing the following notice in your mushroom club's newsletter:

Telluride Mushroom Conference

The 15th annual Telluride Mushroom Conference will be held, August 24-27, 1995, in Telluride, Colorado. The Conference is designed for persons interested in the identification of edible, poisonous, and psychoactive mushrooms and mushroom cultivation.

Professor Ralph Abraham, eminent lecturer and author of Chaos, Gaia, Eros, will address a plenary session of the Conference on Dynamical Systems and Altered States.


Gary Lincoff, author of the Audubon Field Guide to North American Mushrooms, will conduct a course on Mushroom Identification; Paul Stamets, author of Growing Gourmet and Medicinal Mushrooms, on Mushroom Cultivation; Andrew Weil, author of Spontaneous Healing, on Mushrooms and Health, and Mushroom Cookery; John Corbin, cultivation specialist, on Growing Mushrooms on Straw; Linnea Gillman, Past President of the Colorado Mycological Society, on Rocky Mountain Mushrooms; and Emanuel Salzman, Co-editor of Mushroom Poisoning, on Poisonous Mushrooms.

Telluride is an historic Colorado mining town on the western slope of the Rocky Mountain Continental Divide. Daily forays will be led into the nearby forests generally productive of a wide variety of wild mushrooms, particularly edible species.

For further information, contact Fungophile, P.O. Box 480503, Denver, Colorado, 80248-0503. Phone/FAX _____

Thank you for calling this event to the attention of your club's membership.

Sincerely,



Emanuel Salzman, M.D.

CHANTERELLES....BOLETES....TRUMPETS....CHICKENS....ARE YOU READY?

HAIKU



*Matsutake toasted
Over a pine-needle fire
Among the hills.*

-Ginko



Dear Members of the New Jersey Mycological Association:

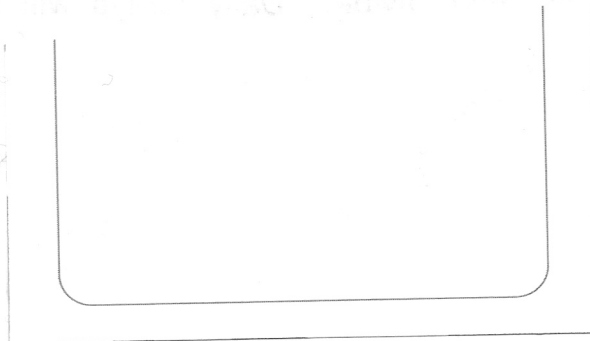
I want to thank you all for the wonderful gift I received as outgoing president. Bernice Fatto's painting of a sunset is so beautiful and a source of daily enjoyment to me. These type of pleasures for the senses, along with the things we see in nature, enrich our lives so much. I am most grateful for this gift and for having had the opportunity to serve as president of this prestigious organization.



Happy Hunting!
Hanna Tschekunow



**NJMA news
c/o Sue Hopkins**



First Class Mail