

Newsletter of the Mycological Society of America

– In This Issue –

Miss Potter's First Love	•	•	. 1
MSA Business	•	•	. 3
Mycological News	•	•	. 5
Mycologist's Bookshelf .	•		18
Mycological Classifieds .			27
Mycology On-Line	•		28
Calendar of Events	•		29
Sustaining Members			31

Important Dates –

March 30, 2007 Deadline date for Abstracts and Registration for the MSA meeting 2007

April 15, 2007 Deadline date for submission to Inoculum 58(3)

April 21-22, 2007 The Mid-Atlantic States Mycology Conference (MASMC), Systematic Botany and Mycology Laboratory, Beltsville, MD

August 4-9, 2007 MSA Meeting Louisiana State University, Baton Rouge, Louisiana

Please send the editor notices about upcoming important events.

Editor — Jinx Campbell

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Miss Potter's First Love



Beatrix Potter

As a depiction of fearsome female independence, the new movie "Miss Potter" omits a significant chapter in the life of its heroine. Beatrix Potter's struggles with her domineering mother and her refusal to marry for money are eclipsed, perhaps, by the manner in which her efforts to become a scientist were snuffed out by Victorian attitudes toward women's education.

Beatrix developed a keen interest in natural history during childhood holidays in Scotland and the English

Lake District. Her drawings and watercolors of botanical subjects were greatly admired by Charles Macintosh, a Perthshire postman and amateur naturalist, who was one of the few people who encouraged her burgeoning vocation. Her uncle, the chemist Sir Henry Roscoe, was another supporter, but there were very few opportunities for the higher education that she craved. Miss Potter was fascinated by lichens, whose true nature as symbiotic sandwiches of fungi with algal and bacterial fillings had been recognized by Swiss botanist Simon Schwendener in the 1860s, but refuted by the leading lichenologists. Exploring the microscopic structure of these organisms, Beatrix was won over to the theory of their cohabitive nature. In an attempt to become engaged in the world of professional biology, the 30-year-old Ms. Potter arranged an interview with William Thiselton-Dyer, Director of Kew in 1896. She wanted to show him her drawings and discuss the lichen question, but he sidestepped serious analysis of her work in favor of small talk about Kew's hyacinths and the English onion industry. In her coded diary she wrote, that "His line was on the edge of civil."

Unfazed by Thiselton-Dyer's dismissal she continued her mycological investigations, studying the germination of mushroom spores. Barred by her sex from attending meetings of London's Linnean Society, she convinced a more responsive Kew scientist called George Massee to present her work to the Society Fellows. There is no record of the gentlemen's responses to the paper, but



Illustration from *The Tale of Peter Rabbit* by Beatrix Potter

one week later she decided to withdraw it from consideration for publication, planning to do more experiments to strengthen her conclusions. This project was never completed, partly because her books were received with almost instantaneous applause.

Without records of her scientific observations it is impossible to know whether she had accomplished work of any lasting value, but it would be unreasonable to anticipate significant contributions from someone who had received no formal education in the field. Beatrix had no opportunities to learn from expert mentors, no chance to enjoy the rare elation of an experiment that revealed something that no other person had ever known, nor avenues for testing her own mettle in the competitive marketplace of Victorian science.

Mycology probably ranks somewhat better than many other scientific specialties in its historical receptiveness to female scholars. In 1910, five years after Thiselton-Dyer's retirement, Elsie Wakefield (1886-1972) was appointed as a mycologist at Kew. She went on to serve as Head of Mycology for 30 years. Other women made tremendous contributions to the field throughout the twentieth century. But discrimination against women mycologists didn't end (of course) with the nineteenth century. Marie Schwarz, a graduate student who discovered the fungal culprit for the Dutch elm epidemic alongside other female researchers in Holland, was ignored by leading scientists in the 1920s. She married in 1926, moved to Indonesia, and had two sons. But there was a second opportunity for Dr. Schwarz. After internment by the Japanese in the second war, during which her husband died, she returned to Holland with her children and resumed her studies on fungi. She lived to see her work on Dutch elm vindicated and enjoyed a long and productive scientific career.

Beatrix Potter's books conveyed her love of the natural world and the illustrations reveal an intimate knowledge of the animals, plants, and fungi of the British Isles. Far from losing her early interest in fungi, she continued to paint them in their natural settings. The precision of these paintings is clear from the fact that they were used, posthumously, to illustrate a classic guide to mushroom identification. But how much more might the creator of Peter Rabbit and Mrs. Tiggywinkle have given to science in a more enlightened age?

Sources and Notes

Findlay, W. P. K. (1967) *Wayside and Woodland Fungi*. London: Frederick Warne & Co. This is the classic mushroom guide that included 59 color illustrations by Beatrix Potter. Findlay discusses Beatrix Potter's contributions to mycology in Chapter 3 of the book, titled "The Role of the Amateur in Mycology." Good luck finding a copy of this if you want to add it to your mycological library. I was fortunate to find a copy in mint condition on Alibris.com in January, but the original printing does seem to be scarce.

Schmid, R. (1999) Bamboozled by botany, Beatrix bypasses bigoted biology, begins babying bountiful bunnies: OR Beatrix Potter [1866-1943] as a mycologist: The period before Peter Rabbit and friends. Taxon 48: 438-443. If you can make it past the title, this article offers a wealth of useful tidbits about Beatrix Potter's interests in mycology.

Wakeford, T. (2001) *Liaisons of Life: From Hornworts to Hippos, How the Unassuming Microbe Has Driven Evolution*. New York: John Wiley & Sons. In this lively and interesting book, the author revels in microbial diversity, but I think he misrepresents Beatrix Potter's work. Her observations on lichens served only to convince her that other botanists had been correct in their interpretation of these organisms as symbiotic (mutualistic) associations between fungi and photosynthetic partners. Wakeford stretches the truth when he implies that Potter played a heroic role in challenging a Victorian scientific elite who disavowed the symbiotic nature of lichens.

-Nicholas P. Money

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MSA BUSINESS

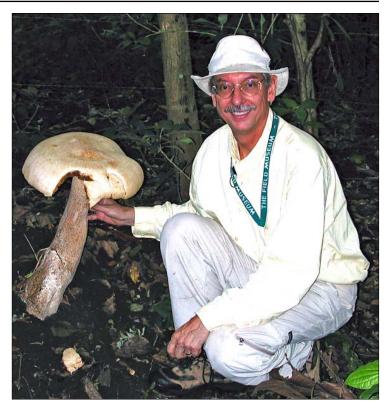
From the President's Corner . . .

Greetings! We are now half way through our society's 75th anniversary year - Happy Birthday MSA! The MSA was founded at the December 1931 annual meeting of the mycology section of the Botanical Society of America held in New Orleans, with the first MSA meeting held in Atlantic City in 1932. Thus, it is very fitting that we will be celebrating this important milestone in our history in Louisiana during this year's annual meeting. There will be a cake, 75th Anniversary t-shirts, special auction items, and more to mark the occasion. However, rather than dwelling on the past, we will be focusing the program on the dynamism and excitement of our science in the early 21st Century. What better way to celebrate the past achievements of the MSA's role in building mycology than highlighting where mycology is now, with insights to future developments. So be sure to participate in what will be an outstanding meeting. See the MSA website and other sections of this volume of the Inoculum for abstract submission and registration details.

There were 279 charter members, including 30 from outside North America, of the MSA.

We have grown substantially since then, with a current membership of roughly 1,200 members from 40+ countries. However, at a time when the number of people studying fungi is growing, and the types of research being undertaken keeps increasing, we have not seen a concomitant growth in membership. We need to increase our efforts to identify and recruit new members to fully meet our mission of *promoting and advancing the science of mycology*.

As I mentioned in an earlier President's Corner, council has proposed the formation of a new Membership Committee that will work with council to attract and retain new members. A change in the by-laws needs to be made to establish this committee. This change is included in the ballot that you will soon be receiving. So in addition to voting on a slate of officers, please vote YES for the establishment of the Membership Committee. You can also greatly help your society by actively discussing the benefits of membership with your colleagues who are not members of MSA. **Steve Harris** (Councilor Cell Biology/Physiology) has offered to post information on MSA at the upcoming Fungal Genetics Conference at the Asilomar meeting



Gregory Mueller, President

(contact him if you wish to help). Informal discussions with colleagues are also critically important: there are many plant pathologists, fungal geneticists, cell biologists, soil ecologists, mycorrhizists, international colleagues, etc. who would benefit from joining the MSA. Of course, we also need to keep attracting students – they are the future of our science.

The ballot that you will soon be receiving contains an outstanding slate of candidates for officers who have agreed to serve the MSA. I wish to thank all of them for their willingness to contribute to our society and urge you all to vote. My thanks go out to the Nomination Committee, chaired by **Linda Kohn** and everyone who submitted nominations for their great suggestions. Vice President **Roy Halling** had the pleasure of convincing people nominated to agree to be put on the ballot – good job, Roy. Societies like the MSA are only as active and responsive as their members are willing to participate – based on the quality of this year's slate of candidates, the MSA is in great shape. Thank you all.

Please do not hesitate to email or call me with your ideas, suggestions, and concerns. Keep warm and think fungi.

MSA BUSINESS

MSA Secretary's Email Express

MSA Council has completed two email polls since my last report, approving the following:

 MSA Executive Council poll 2006b-4: It was moved by President Mueller and seconded by Secretary Aime that Executive Council approve a \$15-25 supplement to registration fees for the 2007 an-



Cathie Aime

nual meeting to be used to cover registration costs of non-USA & Canadian MSA members presenting in this year's annual meeting symposia. Background: The 2007 MSA annual meeting in Baton Rouge will be a relatively inexpensive meeting. We expect many MSA members from Latin America will be invited as symposium speakers in Baton Rouge. MSA does not provide registration waivers for invited symposium speakers who are already MSA members. In order to encourage participation of these invitees we propose adding a small supplement to the registration fees for all members to the 2007 meting. This supplement would be used to waive the registration fees for our Latin American (or other non-U.S., non-Canadian) members who are invited symposium speakers. Approved.

• MSA Full Council poll 2006b-5: **Dirk Redecker**, Chair of the Karling Annual Lecture Committee nominates **Patrick Keeling** as the 2007 Karling Lecturer. *Approved*.

New Members: It is my pleasure to extend a warm welcome to the following new (or returning) members. New memberships will be formally approved by the Society at the Annual Business Meeting in Baton Rouge in August 2007.

- Mexico: Ricardo Garcia Sandoval
- Spain: Ester Gaya
- Taiwan: Vicky W. Sun
- United States: Mark Alexander, Faith E. Bartz, Nicholas Justin Brazee, Juli Buchanan, Li-ping Chang, E.A. Dixon, Jr., N. Louise Glass, Laura Hartley, James J. Jacobs, Elisabeth C. Jarvis, Gerald L. Miller, George Gatere Nderitu, Alma Edith Rodriguez, Scott Orland Rogers, William Dennis Starrett, Eric D. Walberg, and Sandra W. Woolfolk
- Viet Nam: Hoang Pham

Emeritus candidates: Four applications for emeritus status have been received, all from U.S. members:

- Mo-Mei Chen, Berkeley, CA
- David Porter, Brooklin, ME
- Allan Snyder, Aliso Viejo, CA
- David P. Lewis, Newton, TX

Emeritus status is conferred upon retired or retiring members who have at least 15 years good standing with the Society. Emeritus status will be formally conferred after approval is voted by the general membership at the Annual Business Meeting in Baton Rouge in August 2007.

REMINDER: MSA Directory Update: Is your information up-to-date in the MSA directory? The Society is relying more and more on email to bring you the latest MSA news, awards announcements and other timely information, and our newsletter. To ensure that you receive Society blast emails and the *Inoculum* as soon as it comes out, and so that your colleagues can keep in touch, please check the accuracy of your email address and contact information in the online directory. This can be accessed via our web site at www.msafungi.org. If you need assistance with updating your membership information please contact our Association Manager at Allen Press, the always-helpful Kay Rose at krose@allenpress.com.

-Cathie Aime MSA Secretary cathie@nt.ars-grin.gov

• Austria: Walter Michael Jaklitsch

Field Mycology Class Offered in the Adirondacks

Timothy J. Baroni will offer Field Mycology (Bio 523, 3 sem. hrs.) at SUNY – Cortland's Center for Environmental and Outdoor Education at Huntington Camp on Raquette Lake, located in the center of the Adirondack Forest Preserve in upstate New York, 13-27 July, 2007. The course is offered by State University of New York – College at Cortland. For registration information see http://www.cortland.edu/summer or contact Dr. Baroni directly (baronitj@cortland.edu or call 607-753-2725). Tuition is based on resident vs. non-resident and graduate vs. undergraduate status. The cost of lodging and meals is \$354.00.

Emphasis is on field work and laboratory techniques (sectioning/ staining/ microscopy/ use of primary & secondary literature) used in identifying macrofungi, but a broad range of topics covering morphology, ecology, evolution, systematics and economic importance of macrofungi is also presented. The information is appropriate for beginning or advanced level students (advanced undergraduate or graduate level credit) or for individuals interested in learning the basic science of macrofungal identification. Students will also learn how to make scientifically accurate and valuable voucher specimens.

Raquette Lake is in the heart of New York State's 2.5 million acre Adirondack Forest Preserve. Huntington Camp, originally dubbed Camp Pine Knot by its creator, William West Durant, was the first of the Great Camps of the Adirondacks, and much of that old architecture is still present in the buildings that make up the campus. The facility is considered a State Historical site today, even though it is solely used for educational purposes by SUNY – College at Cortland. The Adirondack Forest Preserve has large tracks of wilderness and Camp Huntington sits at the edge of one of these large tracks. One can literally walk out the door of the laboratory and be in the forest in a matter of minutes. The mature forests and bogs are lush and diverse, and the corresponding diversity of fleshy fungi is high.

—Timothy J. Baroni baronitj@cortland.edu

MSA Endowment Fund Honor Roll — July 4, 2005 to Aug. 1, 2006

Constantine J. Alexopoulos Prize Fund David R Anderson James H. Ginns Faye Murrin

- Constantine J. Alexopoulos Travel Fund Kermit Cromack, Jr. George Carroll Marie L. Farr Joanne Tontz Ellzey John Peterson
- Myron P. Backus Award Fund Oscar H. Calvert Martha Christensen Elizabeth M. Frieders Daniel P. Mahoney, II
- Alma Whiffen Barksdale/ John P. Raper Travel Fund Terry W. Hill J. Thomas Mullins

Howard E. Bigelow Travel Fund Tim Baroni Margaret E. Barr Bigelow Cathy Cripps D. Jean Lodge

Margaret E. Barr Bigelow Fund Tim Baroni Margaret E. Barr Bigelow Cathy Cripps D. Jean Lodge Carol A. Shearer

Edward E. Butler Travel Fund Edward E. Butler Stephen M. Marek

William C. Denison Travel Fund George Carroll Fred Rhoades Jeff Stone Harry Morton Fitzpatrick Travel Fund George Carroll Elizabeth M. Frieders Melvin S. Fuller Travel Fund

Jann M. Ichida David J. McLaughlin

Richard P. Korf Travel Fund Linda Kohn Gretchen Kuldau John Michael Matuszak Lorelei L. Norvell

Everett S. Luttrell Travel Fund George Carroll Richard Hanlin Maren Klich

Orson K. Miller Travel Fund Cathie Aime Phyllis T. Albritton Harley Barnhart David Chalkley Cathy Cripps Mark and Lynda Dillin Marilyn and Rollin Evans David L. Hawksworth Don Hemmes Donald and Maxine Huffman Sherry Kay Jan and Brigitte Kohlmeyer Richard P. Korf Benjamin and Eleanor Leonard D. Jean Lodge Donald and Judith Mathre Hope Miller Gregory M. Mueller and Betty A. Strack John and Caroline Murphy Paul E. Noell Charlotte Omoto Todd and Andrea Onken

Leon and Doris Onken Clayton and Patricia Peterson Donald Pfister Henry and Jean Shank Richard and Jane Solberg Albert and Marjory Stage James and Blanche Tinius Cynthia and Robert Winterhalter Kathryn Youngerman Robert and Esther Youngs P. Zobrist Mycological Society of Utah

George W. Martin/Gladys E. Baker Research Fund Michael T. Dunn Marie L. Farr Jamie Torres C. J. K. Wang

Clark T. Rogerson Fund Margaret E. Barr Bigelow James H. Ginns D. Jean Lodge

Harry D. Theirs Travel Fund J. R. Blair George L. Barron Carlyn Halde Roy Halling Thomas R. Horton Lorelei L. Norvell Todd Osmundson

James M. Trappe Travel Fund Michael F. Allen Gro Gulden Ling Ling L. Hung Teresa Lebel D. Jean Lodge James M. Trappe John C. Zak Francis A. (Bud) Uecker Travel Fund Lafayette Frederick

Kenneth Wells Travel Fund Kwon S. Yoon

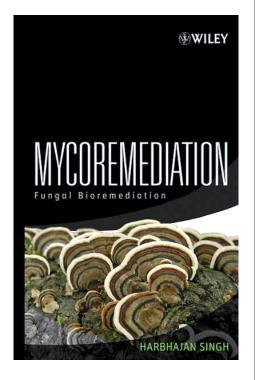
Uncommitted Endowment Pierluigi Bonello Ed Braun Lori M. Carris Dennis F DiTullio Michael T. Dunn Louise Egerton-Warburton Sara K. Gremillion Thomas Harrington Kathie T. Hodge Thomas R. Horton Hack Sung Jung **Bud Kramer** Ester McLaughlin Arvind A. Padhye F. Brent Reeves, Jr. Gary J. Samuels Nicolas Simpson Carol M. Stiles Jeff Stone Janice Y. Uchida Tsuneo Watanabe Benjamin Woo Unicorn Imp. & Mfg. Corp.

Please report any errors or omissions to A. Elizabeth (Betsy) Arnold, Chair, MSA Endowment Committee (arnold@ag.arizona. edu). There is still time to make the 2006-2007 Honor Roll! Contact Betsy or use the form found in this issue of *Inoculum*. Thank you to Tom Harrington for years of outstanding service as Chair!

Mycoremediation: Fungal Bioremediation

Mycoremediation: Fungal Bioremediation by Harbhajan Singh November 2006 John Wiley & Sons, Hoboken, New Jersey Hardcover, 592 Pages 12 Chapters, 76 Tables, 40 Figures, Index, and Nearly 2,000 References Table of Contents (11 Pages) – 370 Topics

Mycoremediation is one of the most complex areas in applied remediation engineering. This state of the science represents a pioneer work and first innovative book that focuses on a new and emerging field of mycoremediation. The book contains elements from all scientific and engineering disciplines known in the world and serves as a connecting link of knowledge between the twentieth and twenty-first centuries. It also provides a solid foundation in the theoretical underpinnings of mycoremediation, and features step-by-step guidance for a myriad of effective techniques to identify, select, and apply fungi towards the remediation of



contaminated sites. The book is encyclopedic in scope and presents various types of fungi and the associated fungal processes to clean up the wastes and wastewaters in the contaminated environments. The types of fungi used in these processes are: white-rot fungi; brown-rot fungi; soft-rot fungi; filamentous fungi; aquatic fungi; marine fungi; thermophilic fungi; alpine fungi; mushrooms; mycorrhizal fungi; yeasts; molds, and others. This book covers aspects from the degradative fungi, taxonomy, biochemistry, enzy-mology, reactor engineering, genetic engineering and ecology of biodegradation, to practical applications. Some new terms have been introduced in the book that will eventually become part of the Dictionaries of Mycology, Microbiology, Environmental Science and Engineering, and Bioremediation. The book contains an interwoven synthesis and historic perspective of this technology, and also provides a "slow-release" nutrition for inventions and future developments.

Fungi are one of the most versatile and unique organisms in structure, function, metabolism, and ecology. Fungal morphology, methods for the measurement of growth, growth models and bioreactors for the removal of several types of pollutants are epitomized in the introductory chapter. Immunological and molecular methods for the detection of degradative fungi

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Cortbase Database Updated

Cortbase, the nomenclatural database for corticioid fungi s.l. has been updated. The new version, 2.02, was released in December 2006 and features detailed information (e.g., publications, basionyms/synonyms, and taxonomic affiliations as applicable) for 8300 species names of corticioid fungi. It is available for on-line query at andromeda.botany.gu.se/cortbase.html. A stand-alone MS-DOS version can also be downloaded from this site. Contact Henrik Nilsson at henrik.nilsson@dpes.gu.se

Food Mycology 2007

The International Commission of Food Mycology (ICFM: www.foodmycology.org) is organizing a special symposium for the food and beverage industry (www.foodmycology2007.com), entitled "Emerging Mold Problems and Spoilage in Food and Beverages." An internationally recognized group of mycologists will present topics of interest concerning emerging problems with molds and yeast. The symposium is being held in Key West, FL on June 6-8, 2007.

Mid-Atlantic Conference

The Mid-Atlantic States Mycology Conference (MASMC) will be held on April 21-22, 2007 at the Systematic Botany and Mycology Laboratory in Beltsville, MD. The guest speaker will be Meredith Blackwell. This is a great chance to get a small dose of the latest research and meet with fellow mycologists. For additional details and to register see http://nt.ars-grin.gov/masmc/. Contact David Farr of the USDA, ARS Systematic Botany and Mycology Laboratory.

NEMF Foray Database

Gene Yetter of NYC (also a dedicated volunteer in the NY herbarium) has been compiling records for 30 years of collections gathered during annual Northeast Mycological Federation (NEMF) forays. In Gene's words: "We passed 30 years of records this year and that milestone inspired me to get working on some Web access. I'm kind of proud of the 100 'very common' fungi feature. It's hard to argue with the numbers if you can trust the perennial identifiers showing up at the foray." The Web pages can be http://home.att.net/~gyetter/ found at nemf/index.htm and detail 30 years of fungal records from the Northeast Foray database.

in different media are also outlined. The fungal treatment of a wide variety of industrial wastewaters and brewery and distillery wastes, processes of fermentation and decolorization, bioreactors and modeling concomitant with economic importance, respectively, are epitomized. The metabolic pathways and mechanisms of fungal transformation and detoxification of petroleum hydrocarbons, polychlorinated biphenyls and dioxins and pesticides are explored. The book also contains a wide range of fungal bioreactors, mechanisms of action and factors affecting fungal transformations, metabolic pathways, and metabolites of phenols, polycyclic aromatic hydrocarbons, pulp and paper mill effluents, and dyes.

The role of fungal enzymes in the degradation and transformation of wastewaters, petroleum hydrocarbons, polychlorinated biphenyls, pesticides, phenols, polycyclic aromatic hydrocarbons, lignin, pulp and paper mill effluents and dyes is elucidated.

Application of fungal biosorption of heavy metals is epitomized along with various mechanisms, bioreactors, and models in process development. Uptake of metals, including metal tolerance in symbiosis, mechanisms, transport of radionuclides and degradation of xenobiotics by mycorrhizae are epitomized. Functions of mycorrhizal and white-rot fungi are compared in the ecosystems and degradation of organic compounds. Application of fungi in degradation of various xenobiotics in soils is finally established. Advances in genetic engineering and molecular biotechnologies are also focused that will be useful for the bioengineered fungi capable of faster detoxification of these compounds. Nearly 2000 references are included that will serve as a template on any specific area of mycoremediation. Limitations of this technology are also addressed that will become the target of future research. This will serve as a text book, design book, reference book, research book, book of applications, and book of future perspectives.

-Harbhajan Singh 1270 Euclade Court Atlanta, GA 30329 bhat15@msn.com

A Report on the Joys of Retirement

Dick Korf, one of many past presidents of the MSA, and presumably the only mycologist who was ever chairman of a Theatre Arts Department at a major university (Cornell), has just realized a 20-year dream. He refers to it as "a last gasp of an 80-year-old lifetime actor." It is an audio book, the 1929 Pulitzer-Prize-winning book length poem, John Brown's Body, by Stephen Vincent Benét. It is a long poem taking up 12 CD's and running just over 13? hours (this is clearly for really long car trips). Dick was granted the right to do 100 copies of the unabridged poem, in a not-for sale edition, for his friends and family and a few libraries. It is a tale of the American Civil War (the most destructive war in American history) that has entranced Dick since he first encountered it at the age of 14. He has reread it probably every 5 years since. An MP3 version that will download to play on any computer and some CD players has been pirated and can be downloaded from the www. If you're really interested, email Dick at info@mycotaxon.com for information. There are a few library copies not yet spoken for as well.

> -Dick Korf info@mycotaxon.com

MSA Auction

It's never too soon to think about donating your mycological treasures to the MSA Auction! Out-of-print mycology books, historical photographs of mycologists, and photos and illustrations of mushrooms and other fungi are always popular and items ranging from mycological t-shirts to myco-kitsch are more than welcome. Remember that the auction proceeds go to the MSA General Endowment Fund, which supports student fellowships and travel to meetings. Please notify Betsy Arnold at arnold@ag.arizona.edu of the items you plan to donate so that we can compile a catalog. Donated items may be brought to the meeting registration area or mailed to M. Blackwell, Department of Biological Sciences, LSU, Baton Rouge LA 70803.

2007 Botrytis Symposium

The XIV International Botrytis Symposium will be held in Cape Town, South Africa 21-26 October, 2007. This Symposium will again be the showcase for the latest Botrytis research, development and technologies to be presented by participants from across the world. With contributions from scientists, as well as sponsorship and exhibitions from the diverse array of industries involved, the organizing and scientific committees will be committed to a Symposium program of interest to anyone involved in the research and practice of Botrytis. Deadline for Submission of Abstracts is 1 June 2007. Registration details and the latest update on the symposium will be placed on the website in May 2007. Please visit the website http://academic.sun.ac.za/botrytis2007 for further details.

MSA 2009 Meeting Changed

The date of the 2009 MSA meeting has been changed to avoid a conflict with APS. Please mark your calendars. BSA/MSA meeting in Snowbird, Utah July 25-30, 2009 http://www.botany.org/conferences/

Polar and Alpine Meeting

The next Polar and Alpine Microbiology Meeting will be held in Banff, Alberta, May 10-15, 2008. Contact r.currah@ualberta.ca for more details.

Mycology in Mexico

The Sociedad Mexicana de Micología held its 9th National Mycology Congress October 20-24, 2006 on the seaside campus of the University of Baja California, Ensenada, Mexico. Like most such events, this one featured plenary speakers, symposia, oral and poster presentations, and the opening and closing ceremonies characteristic of Latin American meetings. Some 110 mycologists from across Mexico were in attendance, as well as several from other countries in Latin America, including Argentina, Brazil, Cuba and Peru. While national meetings are always important professional events, this one had special significance, as it was dedicated to honoring the accomplishments of Dr Teófilo Herrera, the elder statesman of Mexican mycology.

Although in somewhat frail health, Dr Herrera, now 82, made the long trip from Mexico City to Ensenada to be present during the Congress. The official dedication was made during the opening ceremony, as several speakers highlighted Dr Herrera's contributions to biology and mycology in Mexico. He was presented with a plaque during a moving standing ovation from those present. A special poster session was devoted to highlighting some of the important events during his career.

Following receipt of his doctoral degree, Dr Herrera joined the faculty of the Department of Botany in the Institute of Biology of the National Autonomous University of Mexico, better known as UNAM, located on the main campus in Mexico City. In association with Dr Martha Zenteno, an outstanding Mexican phytopathologist, Dr Herrera founded the Laboratory of Mycology and Phytopathology in that Institute. He was the first individual in Mexico to devote full time to the study of fungi, thus initiating what has become an active group of mycologists in the country. An outstanding teacher, Dr Herrera trained many of the current mycologists in Mexico. He has published eleven books, including the popular mycology text, El Reino de los Hongos, co-authored with Dr Miguel Ulloa.

Dr Herrera's initial research interest was in the study of the microbiota of indigenous fermented foods and beverages of Mexico, but he later turned his attention to the gasteromycetes of Mexico. In subsequent years he studied other groups as well, often in conjunction with his long-time colleague, Dr Evangelina Pérez-Silva. Dr Herrera was one of the first mycologists to study the use of hallucinogenic species of *Psilocybe* used by the well-known indigenous curan-

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Photo 1 – Left to right: Dr Teofilo Herrera, Dr Evangelina Perez-Silva and Dr Ricardo Valenzuela, President of SMM, during the dedication ceremony.



Photo 2 – Left to right: Dr Herrera receiving congratulations from Dr Salomon Barnicki, Dr Gaston Guzman and Dr Magda Carvajal.

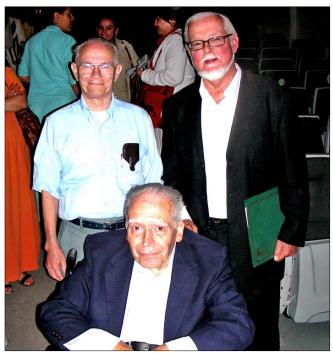


Photo 3 – Dr Herrera with Dr Richard Hanlin and Dr Gaston Guzman.

dera María Sabina during curing ceremonies in Oaxaca, Mexico. A curandero-or curandera for a female-is a traditional folk healer or Hispanic-America, shaman in prevalent in Latin America who is dedicated to curing physical and/or spiritual illnesses. Dr Herrera's publications describing his experiences during the ceremony provide interesting reading and insight into this traditional use of these fungi. His interest in helping students led him to supervise those working with other groups of fungi, thus expanding the research areas of my-



Photo 4 – Dr. Herrera with curandera Maria Sabina in Oaxaca, Mexico.

cology in Mexico. This has lead to the development of research projects on the aquatic micromycetes of Mexico, an area formerly unrepresented in the country.

In addition to initiating mycological research in Mexico, Dr Herrera was one of a visionary group of botanists who pushed for the development of a national plant collection. This goal was finally achieved with the establishment of the Botanical Garden on El Pedregal de San Angel Reserve located on the main campus of UNAM, which now has an outstanding collection of plants native to Mexico. His research on the basidiomycetes of Mexico led to the development of the Fungi Collection of the National Herbarium of Mexico housed in the Institute of Biology. The Congress was a fitting tribute to an exceptional person and scientist.

 Maria C. González and Richard T. Hanlin Department Botany Lab C-121 Institute Biology UNAM PBox 70-233 Mexico City DF 04510 Mexico E-mail: mcgv at ibiologia.unam.mx

2007 Mycology Seminars at Maine's Humboldt Institute

In support of field biologists, modern field naturalists, and students of the natural history sciences, Eagle Hill offers specialty seminars and workshops at different ecological scales for those who are interested in understanding, addressing, and solving complex ecological questions. Seminars topics range from watershed level subjects, and subjects in classical ecology, to highly specialized seminars in advanced biology, taxonomy, and ecological restoration. Eagle Hill has long been recognized as offering hard-to-find seminars and workshops which provide important opportunities for training and meeting others who are likewise dedicated to the natural history sciences.

Eagle Hill field seminars are of special interest because they focus on the natural history of one of North America's most spectacular and pristine natural areas, the coast of eastern Maine from Acadia National Park to Petit Manan National Wildlife Refuge and beyond. Most seminars combine field studies with follow-up lab studies and a review of the literature. Additional information is provided in lectures, slide presentations, and discussions. Seminars are primarily taught for people who already have a reasonable background in a seminar program or in related subjects, or who are keenly interested in learning about a new subject.

UPCOMING SEMINARS

Advanced Mycology: Integrating Field and Lab Observations; August 26 - September 1; Donald H. Pfister (dpfister@oeb.harvard.edu).

Toxic and Look-Alike Mushrooms of Interest to the Health Care Provider: The Maine Mushroom Course; September 13 - 15; Lawrence Leonard (Ileonar1@maine.rr.com), John Saucier (Saucij@mmc.org). Mushrooms for Naturalists; August 12 - 18; Rosalind Lowen and Edward Bosman (Roz.lowen@gmail.com), Lawrence Leonard (lleonar1@maine.rr.com).

ALSO OF INTEREST

Crustose Lichens of Coastal Maine; July 1 - 7; Irwin M. Brodo (ibro-do@mus-nature.ca).

Lichens and Lichen Ecology; July 8 - 14; David Richardson (david.richardson@SMU.CA), Mark Seaward (m.r.d.seaward@brad-ford.ac.uk).

Advanced Lichen Tutorials; July 8 - 14; Richard Harris (bbuck@nybg.org).

Lichens for Naturalists; July 22 - 28; Fred C. Olday (folday@panax.com).

Natural Science Illustration in Graphite; July 1 - 7; Dolores R. Santoloquido (SkylineStudio@sbcglobal.net).

SEMINAR INFORMATION

Descriptions of seminars may be found at http://www. eaglehill.us/mssemdes.html

Information on lodging options, meals, and costs may be found at http://www.eaglehill.us/mapinfo.html

There is a printable and online application form at http://www.eaglehill.us/mapweb.html; http://www.eaglehill.us/mapprn.html.

Syllabi are available for these and many other fine natural history training seminars on diverse topics.

CONTACT INFORMATION

For more information, please contact

The Humboldt Institute, PO Box 9, Steuben, ME 04680-0009 Pnone — 207-546-2821 Fax — 207-546-3042

E-mail — mailto:office@eaglehill.us

Online general information may be found at http://www.eaglehill.us

Dr. Carlos E. Chardón Palacios (1897-1965): Pillar of Mycology and Phytopathology in Latin America

Carlos Eugenio Chardón Palacios was born in 1897 in Ponce. Puerto Rico. He was the son of Carlos Felix Chardón and Isabel Palacios Pelletier. Chardón's family came from Champagne, France. His great grandfather. Juan Bautista Chardón, emigrated to Haití, and in arrived 1803 in Louisiana. Due to the "Cédula de Gracia" he moved to Puerto Rico between 1816 and 1817. In 1843 Juan's youngest son, Eugenio Chardón, father of Carlos Félix Chardón, arrived in Puerto Rico.



Fig. 1. Carlos E. Chardón, Chancellor of University of Puerto Rico (1931)

In 1915, Carlos Eugenio Chardón began his BS degree in the College of Agriculture and Mechanical Arts (UPR-Mayayüez). Due to the 1918 earthquake when the University was destroyed, Chardón went to Cornell University in 1919 to finish his BS. At Cornell he met Professor Herbert H. Whetzel, who had a great influence in Chardón's devotion to phytopathology and mycology. Chardón earned his Master's degree from Cornell University in 1921 studying diseases of sugar cane under the supervision of Prof. Whetzel.

Chardón can be considered the Father of Mycology in Puerto Rico because he is the first mycologist born in the island. In 1921 he returned to Puerto Rico to start a very productive career in the taxonomy of fungi, phytopathology and agricultural development. He was appointed as a Phytopathologist in the Agricultural Experimental Station in Río Piedras. One of his more important contributions was the discovery in 1922 of the vector of the mosaic of sugar cane, the aphid Aphis maidis. This resulted in a publication with Rafael A. Veve in the journal Phytopathology. Between 1923 and 1930 Chardón was appointed Commissioner of Agriculture and Labor. This position gave him the opportunity to continue his study of the diseases of tobacco and sugar cane. In 1931 he was appointed Chancellor of the University of Puerto Rico, being the first Puerto Rican to hold this position (Fig. 1). While he was Chancellor he integrated new teaching strategies using technology.

In 1932 the Venezuelan government gave Chardón

the Medal of Honor in Public Instruction. In 1935 he received an Honorary Doctorate from Dartmouth College in New Hampshire. In Chardón 1936 was leader in the economic development of Puerto Rico and organized the Puerto Rico Reconstruction Administration (PRRA). The reconstruction process involved a plan for the development of Agriculture Technicians; a project that is known as the Plan Chardón. At this time

the Liberator Cross and

Chardón had some disagreements with the government and resigned his positions in PRRA and the University. Other agencies that he directed were the Land Authority (1940) and the Tropical Agricultural Institute in Mayagüez (1942). In 1953 he received another Honorary Doctorate from the University of Puerto Rico in Río Piedras.

Chardón was a traveler since his beginnings and all his experience in Puerto Rico gave him a reputation of agriculturist and phytopathologist in Latin America. He was invited to conduct surveys and explorations in Colombia, Venezuela, Bolivia and Dominican Republic. The first trip to Colombia was in 1926 where he reorgan-

Continued on following page

Fungi need special mention. New species and are forms were abundant. On Polylepis alone. found I things which are probably new : an accidium, It a Hypoxylon or nummularia. Phyllachoza, a + asilized by a small, white disco. On Espeletia nerilatia we found 3 new species: a rust, an Asterina a yellow disco in the undersurface. Also a new now the conforlike Hypericum; a new genus of Sordariaccon on dung (with spores dark, 3-septate), Lachnea scutellata and a vermillion Lachnea, + new species of Phyllachora, Helvella elastica! and a number of other interesting things (agaricus, dycoperdons, etc. In all, more than a doxen cies were collected. I never had so much fun collect as I had during the wonderful day at Laguna Keg

Fig. 2. Extract from his diary to Venezuela (1932)

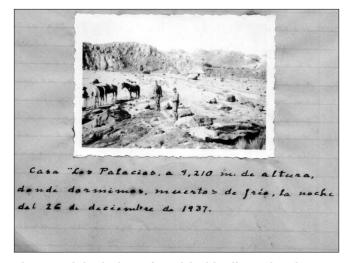


Fig. 3. Original photo found in his diary showing Los Palacios House and, Carlos Chardón and friend Rafael Toro. (December 26, 1937).

ized the School of Agriculture of Medellín. In 1929 he returned to Colombia to take charge of the Agriculture Mission of the Cauca Valley and established the Experimental Station of Palmira. In 1932 Chardón visited Venezuela and went on an expedition to the Andes where he made many collections of plants and fungi (Fig. 2). In his diary of the trip we can observe a clear and detailed writing that included drawings and geographical, floral and mycological descriptions of the places that were visited.

At the end of 1936, disgusted with the government of Puerto Rico, Chardón departed to Colombia to continue his research and collaborations with the Colombian government in the agricultural development of the country.

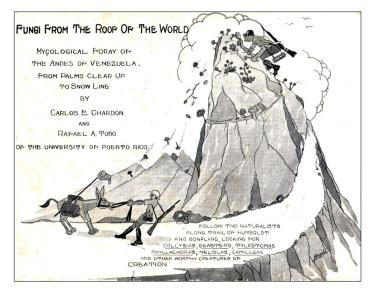


Fig. 5. Caricature of the promotion for the book Mycological Explorations of Venezuela by Carlos E. Chardón and Rafael Toro. Price per volumen \$2.00.

Casa de Los Palacios (del natural) a 1210 metros, en la falda del Volcan del Ruig, andes Centrales. La habitación hamana mas elevada del continente.

Fig. 4. Croquis found in his diary of Los Palacios House near Ruiz Volcano in the Colombian Andes at 4210 m

In April of 1937 he was contacted by President Trujillo and went to the Dominican Republic to help in an economic development plan. At the end of 1937 he returned to Colombia to conduct an expedition to the Colombian Andes (Fig. 3-4). It is obvious that Chardón helped in the agricultural and economic development of several countries in the Antilles, South America and even Asia, where he collaborated with the government of Iran.

Even though he spent a lot of time in business issues, he always found time to conduct scientific studies and to study mycology. Chardón dedicated his mycological time to study Pyrenomycetes and described several new genera and species. In 1923 with N. L. Britton he organized

the series of 14 volumes Scientific Survey of Puerto Rico and the Virgin Islands. With Dr Fred Seaver as first author he wrote the mycology part published in Vol. 8. A great collaborator of Chardón was Rafael A. Toro, who was Assistant of Phytopathology in the Agricultural Experimental Station in Río Piedras. Both made extensive works in Colombia and Venezuela and published *Mycological Explorations of* Colombia (1930) and Mycological Explorations of Venezuela (1934) (Fig. 5). Apart from publishing about fungi, Chardón was interested in writing about his experiences as an Explorer and the history of sciences. In 1941 he published "Viajes y Naturaleza", where he described his trips in America and the contributions of Latin American scientists. In 1949 he published the first volume of "Los Naturalistas en América Latina". He completed volumes 2 and 3 and started on volumes 4 and 5, but died before he was able to publish them.

It is evident that the many contributions of Dr

Continued on following page



Fig. 6. Carlos E. Chardón Palacios, probably close to 1958.

Carlos E. Chardón Palacios place him as an excellent collector and leader in mycology and phytopathology in Latin America. Reading his diaries, writings of colleagues and friends, and listening to those that knew him, the many qualities of this great Puerto Rican are evident: a big man in size and intellect, a great person, a happy spirit, a futurist, a story teller, a great sense of humor and most of all a scientist and researcher. He was a person that was always looking for the meaning of things, defending the truth and not giving up his belief and convictions. Due to his integrity, he had some disagreements with the government, but he never felt angry and he continued working till his last days. In his diary from Colombia of 1937 he says: "Character without a doubt is molded on the anvil of adversity. We must defy bad times and receive the future with a happy face. From my cigarette, a faint thread of smoke rises and in my dreams I see the smoke of a big Colombian sugar mill. Undo injustice and conquer new horizons. Why not? Make live an eternal adventure...!"

"El carácter, no hay duda, se moldea en el Yunque de la adversidad. Desafiemos los tiempos malos y pongamos cara al porvenir. De mi cigarrillo, se eleva un tenue hilo de humo, y en mis sueños, me parece el humo de la chimenea de un gran ingenio en Colombia. A deshacer entuertos y conquistar insulas. ¿Por qué no? Haced de la vida una eterna Aventura....!"

Dr Carlos E. Chardón Palacios died March 7, 1965 in San Juan, Puerto Rico. The Puerto Rican Mycological Society honors this outstanding mycologist with the Carlos E. Chardón Lecture offered every year during the Annual Symposium of Mycology.

> -Sharon A. Cantrell Science and Technology Universidad del Turabo PO Box 3030 Gurabo, PR, 00778 scantrel@suagm.edu

Fungal Environmental Sampling and Informatics Network (FESIN)

A Research Coordination Network dedicated to exploring the interface between Ecology and Mycology.

The National Science Foundation has funded a proposal for a "Fungal Environmental sampling and Informatics Network — FESIN". While the proposal must still be approved at the higher levels of NSF, things are looking positive with regard to a Research Coordination Network at the interface of mycology and ecology.

This new incarnation of a research coordination network in fungal biology is built on the model of Deep Hypha and aims to coordinate the development of rapid identification methods for fungi from environmental samples, to create cyberinfrastructure for the retrieval of multiple layers of biologically relevant information on fungal taxa, and to stimulate educational and outreach opportunities in fungal ecology.

For purposes of the proposal, an initial core of participants was selected to represent depth and diversity of expertise in the fields of ecology and mycology but the network is open to all interested people. Unlike Deep Hyphae, there will be a single meeting each year and meetings will alternate between the Ecological Society of America and the Mycological Society of America. FESIN will be introduced at the 2007 meetings of both societies. Funds are available to send a limited number of mycologists to the ESA meetings and a limited number of ecologists to the MSA meetings and to fund speakers at these meetings.

We seek your active involvement in this project. The web page (under construction) can be found at http://www.bio.utk.edu/fesin. To receive announcements and mailing, please e-mail khughes@utk.edu and ask to be added to the FESIN mailing list.

We hope that this will be a terrific forum for beginning to build new bridges between ecologists and mycologists, and we look forward to a great series of meetings.

> Sincerely, Tom Bruns Betsy Arnold Karen Hughes

Fungal Diversity of Caribbean Focus of Symposium

The IX Latin American Botanical Congress was held in Santo Domingo, Dominican Republic from June 18-25, 2006. The congress was well attended with over 1000 oral and poster presentations. Several mycologists from South and Central America as well as from Europe and the USA attended the Congress. A symposium about the diversity of fungi in the Caribbean region was organized by Dr Sharon A. Cantrell from Universidad del Turabo in Puerto Rico. The symposium was sponsored by the MSA Biodiversity Committee and the Merck, Sharp and Dhome of Spain funds to the Universidad del Turabo. Dr Cantrell dedicated the symposium to Dr Orson K. Miller, who participated in several mycology expeditions to the Dominican Republic together with Dr Jean Lodge in her project Basidiomycetes of the Greater Antilles. The talks were: 1) Managing and Organizing fungal biodiversity inventories by D. Jean Lodge; 2) Managing and Organizing fungal databases by Dave Farr; 3) The hidden diversity. Molecular techniques to study microbial diversity by José R. Pérez-Jiménez; 4) Caribbean Fungi. The Darwin Project by David Minter; 5) Diversity of Agaricales and Boletales by Beatriz Ortiz-Santana; 6) Diversity of Polyporales by Julieta Carranza; 7) Diversity of Ascomycetes by Sharon A. Cantrell; 8) Diversity of rust and smuts by Omar Paino Perdomo; 9) Ectomycorrhizal associations of the Guiana Shield by Terry Henkel. A total of 33 posters were presented by mycologists. A pre-congress workshop on Tropical fungi was organized by Omar Paino-Perdomo from the Dominican Republic. Dr D. Jean Lodge and Dr Cantrell served as facilitators during the workshop.

> -Sharon A. Cantrell scantrel@mail.SUAGM.EDU



Fig. 1. Speakers of the Fungal Diversity of the Caribbean Region symposium. From left to right: Julietta Carranza, José Pérez-Jiménez, D. Jean Lodge, David Minter, Dave Farr, Sharon A. Cantrell, Terry Henkel, Omar Paino-Perdomo and Beatriz Ortiz-Santana.



Fig. 2. Dr. Jean Lodge showing and explaining to workshops to workshops participants the different fungal collections obtained.



Fig. 3. Participants of the pre-congress Tropical Mycology workshop.



Fig. 4. A mycological field trip to the Central Mountain of Dominican Republic was organized by Dr. Cantrell. In this picture we can see Terry Henkel (right), David Minter (center) and María Quírico (left) admiring the only mushroom found, Psilocybe cubensis. It was very dry in the Dominican Republic at the time of our visit.

Crossword Corner — Pop/Cultured: Human/Fungi Relationships

Juliet Pendray is a member of the Vancouver Mycological Society (www.vanmyco.com). She writes fungal crossword puzzles, primarily for the amusement of herself and also as a tool for her own education. Juliet has just completed a crossword dealing with human/fungi relationships that should be of interest to the *Inoculum* readership.

ACROSS

1. FRG mushroom

3. First European botanist to write description of a fungus species

- 7. Norwegian fungus
- 11. Turkish fungus

13. Region where the Koryak shamans use the mukhomor mush-room

16. The reindeer's attraction to this human product may be due to historical consumption of a fungal favourite of the reindeer

18. Mycoremediation can be used to restore habitat across obsolete _____ networks

21. Phycomyces is happy about the smelly _____ left on the dog path

22. In Eastern Europe, you can get one made from amadou, from polypore tissue

23. A substance derived from a Cyamopsis bean, which can be used to stabilize Coprinus ink for writing purposes

- 26. In Portugal we hunt for _____ gumelos
- 28. Haunting growth pattern inspiring fairy tales
- 29. Fungal libation
- 31. A wet forest to a mycophile
- 33. _____ ni Karsten Finnish mycologist
- 34. Catalan Boletus edulis

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	25		26							27		28		
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43										44			45	
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	47													

35. Mayan culture apparently required one of these to pick ceremonial mushrooms

38. Humanoid mushroom in Mario game

42. We have studied leaf-cutter ants so intently, we found castes such as _____ the fungus garden tender

43. When a common human dermal fungi gets out of control

44. Forage used to measure Chernobyl derived radiation levels from Siberia to Scandinavia

46. Raise a pint and break some bread in celebration of this marvelous fungus

47. Spanish fungi

DOWN

1. In attacking this, a Phytophthora devastated a nation

2. Famous Northern British Columbia picker gathering

4. This has been used to scan habitat for fruiting body presence

5. Spanish mushroom

6. In 2001, this 15-year old Russian was feared to be hosting mutated Penicillium, Aspergillus and other fungi.

7. Traditional mushroom course

8. Use of ______cybe species has generated much in the way of religion, literature, art and legislation

9. Pickers received as much as \$160/lb for this mush-room in 1993

10. Ancient fungal dye for royal purple without as many pricey Murex snails

12. Filipino fungus

14. Many forayers are happy to simply _____ in the quiet of the wilds

15. Ganoderma applanatum, Cortinarius cinnamomeus, Pisolithus tinctorius and other fungi have been used to make this

17. This Blast can annually decimate enough food to feed 60 million people

19. Woodcut of polypores is by this 16th century German artist

20. The _____Veda speaks of Soma, a drink possibly derived from A. muscaria

24. One of the longest running Morel Festivals began in 1960 in this U.S. state

25. Some theorize that this popular fellow owes his origin to A. muscaria traditions

27. Ergot caused the _____ Blight in Salem rye fields in the late 1600s

30. Bedouin's truffle

32. For many humans, the value of a fungus is determined by whether it is considered _____

36. MSG was synthesized to _____ te umami flavor sources such as Lentinula edodes

37. Volk, Burdsall and Banik named this A. nabs_____, in recognition of its place in the list of species in this group

39. We scrambled _____ the rock, in order to examine the crust lichens more closely

40. A European _____ in 2004 introduced the Fusarium graminearum "Quorn" burger to McDonald's patrons.

41. Penicillin is arguably the most world-changing fungal _____

45. An Italian Tiffany is also known as a mushroom

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Except for personal use, this puzzle may not be reproduced without permission — Juliet Pendray.

Information on the 2007 Annual MSA Meeting in Baton Rouge

Now is a great time to consider the sunshine and warmth of an exciting meeting in the Gulf Coast State of Louisiana. The MSA Annual meeting will take place during **August 6 through August 9** on the campus of Louisiana State University in historic Baton Rouge. Be sure to arrive early, though, to attend the **MSA Foray on August 5**. Not just a foray, afterward there will be microscopes, culture media and encouraging help in the teaching laboratory and plenty of evening time to dedicate to learning the fungi. For our fearless leaders, the MSA Council Meeting is yet earlier, Saturday August 4. Numerous MSA Committee members are working diligently to put together an exciting program of cogent symposia, workshops, contributed sessions and fun social events. Our local arrangement chair, Meredith Blackwell, has done much advanced planning and has posted helpful information on **MSA's web site** www.msafungi.org/.

• Link to the **registration site** www.sju.edu/msa/. The deadline for early registration in **March 30! Please note:** T-shirts should be ordered at the time of on-line registration as they will **NOT** be available for purchase at the meeting. The registration site will provide the opportunity to select sizes from XS to XXL.

• Link to the **abstract submission** site piast.cbio.psu.edu/ mycological/. The deadline for abstract submission for **contributed presentations** and **poster presentations** is **March 30**!

• **Program information** — **Please note:** The last day, Aug 9 Thursday, will be a full day of contributed papers and symposia and the social is Thursday night!

• Link to **Visa information & requirements.** If you are coming from outside of the United States, you may need a visa. Please check at the web site www.unitedstatesvisas.gov/whatis/type-sofvisas.html for complete information. Visitors from many countries are eligible for the **Visa waver program**. See lon-don.usembassy.gov/cons_new/visa/niv/vwp.html.

• How to Get to Baton Rouge by Air — The closest airport is Baton Rouge Metropolitan Airport (BTR). It is serviced by several major airlines. It's roughly a 15 minute taxi ride to LSU's Cook Conference Center (about \$25). Alternatively, many rental car companies are available, and there is ample parking at the Lod & Carole Cook Conference Center & Hotel. Alternatively, New Orleans International Airport (MSY) is about a one-hour drive away. There is no public transportation from MSY so it is necessary to rent a car and drive via I-10 west to Baton Rouge.

• How to Get to Baton Rouge by Car — From I-10 (east or west) get off at the Dalrymple Drive exit and turn right off the exit ramp. You will have a residential area on your right and University Lake on your left. Continue about 1 km into the LSU campus past East State Street until WEST Lakeshore Drive forks off to the left. You will see the International Culture Center on the left near the intersection. **Option 1:** Follow West Lakeshore for

about 300 meters until you come to the Cook Alumni and Conference Center at 3838 West Lakeshore Drive. **Option 2:** Continue on Dalrymple, turn left on East Campus Drive. ECA will be several blocks down on your left. For more information about the LSU campus, see www.lsu.edu/about_dr.htm. An interactive LSU campus map is at www.lsu.edu/campus/.

• **Information on Accommodations:** Where to stay at MSA? There are three kinds of conference housing for MSA:

(1) 110 rooms are available in the Lod & Carole Cook Conference Center & Hotel, 3848 West Lakeshore Drive (cookconferencecenter.com/) (0.66 miles from meeting rooms).

Special rates for our meeting are shown below. Roll away beds are not available meaning two people must share a bed if more than two people (maximum of 4) want to stay in either a suite or standard room. A substantial **breakfast buffet** is served each morning. The Lod Cook Hotel is at the edge of the campus. Other than breakfast and lunch, food is not available but it is possible to order meals. There is no bar, but there is room service liquor.

Rates: Double (2 double beds) suites (large single room) -\$113 +10 + 10 - max 4/room, 2/bed; King (2 king-sized beds) suites (larger single room) -\$113 +10 + 10 - max 4/ room, 2/bed; Standard doubles \$93 - max 4/ room, 2/bed.

Breakfast: A breakfast buffet is included with your reservation at the Cook Alumni and Conference Center in the Shaquille R. O'Neal Lodge on the ground floor of the hotel.

Please note: You cannot book the group rate for the Cook Center on the conference website. For the group rate be sure to mention MSA and phone the toll free number 866-610-2665, extension 610, during business hours (8:30AM -4:30PM CST) or email Jenny at jenny@lsualumni.org

(2) Or, try the LSU residential life experience and share a multiroom apartment. 250 bedrooms are available in **East Campus Apartments** and the price and the distance from the meeting rooms are just right. Most of the fully furnished apartments have 4 private bedrooms (one single bed in each bedroom) and 2 shared bathrooms. Each apartment has a kitchen with major appliances (refrigerator, stove and oven, microwave oven, and dishwasher) and a clothes washer and dryer. Cooking utensils, however, are not supplied. (See appl003.lsu.edu/slas/reslifeweb.nsf/ \$Content/East+Campus+Apartments?OpenDocument)

Rates: Private bedroom in apartment (1 single bed) —\$45/night including linens.

Breakfast: If you are in East Campus Apartments you can fix your own breakfast, use the LSU Union facilities, or try Louie's (see below).

(3) 10 rooms are available at the LSU Faculty Club. These rooms are reserved for those who need to be near the meeting rooms. Inquire with Meredith at mblackwell@lsu.edu

• More about Food

Lunch. It is highly recommended for a relaxed lunch to take the **box lunch option** on the registration form.

On campus eat at The LSU Union

<u>Off campus</u> (but remember time will be short) **Louie's** for any meal 24 hours a day; famous for breakfasts (omelets, sandwiches, salads, home cooked entrees), 209 W. State St.

Dinner

On campus eat at The LSU Union

<u>Off campus</u>, there are several Tiger Town restaurants open for lunch and dinner within walking distance, try the interactive LSU Campus Map www.lsu.edu/campus/ or the map in your Program Book:

Louie's, north of campus at 209 W. State St.

The Chimes (great local fare including, gumbo, toffee, steaks, salads, wide variety of beers), north of campus at 3357 Highland Rd. *Remember it gets crowded fast!*

Serrano's Salsa Company for lunch and dinner (Mexican food), north of campus at 3347 Highland Rd.

Drunken Fish (Vietnamese or Japanese food), north of campus at 4410 Highland Rd. (actually two different build-ings)

More nearby restaurants may be available by July 2007

Serious dinners off campus: There are many fine restaurants in Baton Rouge (see Clarence's site, www.cajunradio.org/)

The *favorites of LSU mycologists*' in driving (not walking) distance include:

Mason LaCour, 10 miles east at 11025 N Harrell's Ferry Road, great relaxed dining with food cooked by a true French chef, but \$\$\$expensive.

Thai Kitchen, 3 miles northeast at 4335 Perkins Road, \$reasonably priced

India's, 5 miles south at 5230 Essen Lane, \$reasonably priced.

Juban's Restaurant is close and fairly good for the local cuisine, 2.5 miles northeast at 3739 Perkins Road, \$\$\$expensive.

Check out Nhu Nguyen's extensive list (coming soon to the MSA web site).

• Meeting Locations on the LSU campus, see the interactive LSU Campus Map www.lsu.edu/campus/

Where to hear those great MSA talks? All of the sessions will be in **Williams Hall** behind the Life Sciences Building. See the

campus map above and search for Williams Hall.

(1) Lod & Carol Cook Conference Center & Hotel (the map was made before the hotel was built)

(2) East Campus Apartments

(3) Williams Hall (sessions)

(4) LSU Union (food & bookstore)

(5) Life Sciences Building and Annex (registration and information center)

(6) Faculty Club (breakfast and business meeting & social and auction)

(7) French House (tentative: daily posters and lunch)

• The MSA Foray (to be announced soon): Meet the busses at 8:30 PM in front of the Life Sciences Building. The busses will return to this location by 3:30 PM, and microscopes, simple culture media, and plant dryers will be available. The teaching laboratory will be open until 10:00 PM and later if needed. We want this to be a learning experience! Encouragement will be supplied.

David Lewis and Meredith will lead us to several sites just north of Baton Rouge including some beech/magnolia bottom lands and uplands with pines. Macrofungi are usually fruiting in mass in early August so it should be an outstanding opportunity to interact with colleagues and collect in one of the most interesting mycological areas in the USA.

Get ready for the foray by looking at the following web sites:

www.biodiversity.ac.psiweb.com/carimaps/index.htm (Maps of Caribbean fungi)

lsb380.plbio.lsu.edu/wood-rotting%20fungi.html (Gilbertson and Blackwell collections from the Gulf Coast)

nt.ars-grin.gov/fungaldatabases/fungushost/fungushost.cfm (Search for fungus of interest)

lsb380.plbio.lsu.edu/Louisiana%20fungi%20from%20culture%20collections.html (Louisiana fungi in culture collections)

130.39.115.86 (Fungi photographed by Nhu H. Nguyen on the LSU campus and around Baton Rouge)

• Please, do not forget to bring your items for the Annual Auction and Social! Always a fun time of the meetings, the social gathering and auction will be on the last evening at the Faculty Club. Awards will be presented to students, and heavy finger food will be devoured. Bring those old valuable books, important historical artifacts, excellent art and music, and the outlandish objects of mycological interest.

• Find out about local flavor, local cultural events, cajun music, and more at www.cajunradio.org/

Meredith Blackwell Chair of Local Arrangements

Eight books are reviewed below. I would like to thank the many MSA members who have written these reviews. Four new books were received since the last Mycologist's Bookshelf. If you would like to review a book that needs reviewing, let me know. I will send you the book, you write the review, and then you can keep the book. All requests for books to review should be sent to Amy Rossman at arossman@nt.ars-grin.gov.

The Triumph of the Fungi: A Rotten History

The Triumph of the Fungi. A Rotten History. 2007. Nicholas P. Money. Oxford University Press, 2001 Evans Road, Cary, NC 27513, <u>www.oup.com</u>, ISBN 13-978-0-19-518971-1. 197 pp. Price: \$29.95.

Broadly speaking, there are two classes of popular science writing: that presented by an area specialist and that written by outsiders. From within mycology, we find George Hudler, David Moore

and Nicholas P. Money introducing the lay public to the wonders of fungi, all writing in the last decade. In this, his third book of popular mycology, Money investigates the macro-ecological effects of fungal plant disease and presents a lot of biology and history along the way. He contends that fungi have been major players in landscape scale ecological changes through time.

A first rate scholar and historian of plant pathology, Money is an able raconteur; one imagines him as enjoyable a companion in a pub as he is in his writing. In this book he tells what are, for most mycologists, twice-told-tales; however, he tells them refreshingly well. His obvious and acknowledged predecessor is E.C. Large, whose Advance of the Fungi was reprinted a bit over a year ago, and he updates and revises several of Large's stories in addition to telling some of his own. For the lay public, with the exceptions of chestnut blight and Dutch elm disease, the effects of plant disease in terms of landscape scale ecosystem modifications are obscure and even forest pathologists may fail to appreciate their indirect effects on distributions of faunal groups. However, with the advent of sudden oak death, the Australian experience with Jarrah dieback caused by Phytopthora cinnamomi, the case of white pine blister rust and contemporary records of collateral effects of these diseases, the implications of introducing or developing new pathogens on the landscape, are brought to the fore.

In addition to landscape scale changes wrought directly by pathogens on keystone species, Money emphasizes the anthropogenic aspects of fungal plant disease and the epidemiological implications of monocultures. His examples include the cereal



rusts, South American leaf blight of rubber, coffee rust in Ceylon, witches broom in cacao, and potato late blight. Money further details several of the important diseases of agricultural crops that have affected societies and cultural preferences.

Money starts his book where many histories of the discipline do: in ancient Rome and the story of rust biology. He proceeds through a discussion of Tillet, Prévost, the brothers Tulasne and Millardet. Why he feels it necessary to disparage Millardet as self-aggrandizing in order to emphasize the achievement of Prévost whom Money correctly feels is under-appreciated escapes me. He similarly ranks De Bary below Tillet and Prévost in terms of contributions to our fundamental understanding of the nature of disease. Moreover, he illustrates his section on stinking smuts with Prévost's drawings that he explicitly and correctly calls inferior to those of the Tulasnes without offering any of theirs for comparison. Still, we all editorialize; one wishes only that his editor had pointed this out in manuscript. There is considerable socio-historical information included; Money lauds the Dutch for their early egalitarianism regarding gender - women there were at the forefront of our discipline for many years.

The science in the book is accurate and mostly up-to-date, so much so that on occasion it has already been superseded (presumably the *Phytopthora* taxon 'C' is *P. kernoviae*) — such is the pace of science. Several of his examples are inapt and are driven more, one feels, by a desire to be hip or cute than by their relevance. In particular, his example of Britney Spears' popularity as a change from epidemic to pandemic scales seems both ephemeral and incorrect: will readers in twenty (ten?two?) years recognize this reference?

For whom was this book written? Or better, which groups will best be served by this book? Intelligent high school students with an interest in biology would not be challenged by it, but might find it inspirational. So, too, with interested lay readers. It is scientifically sufficiently rigorous for use as a supplemental reading for undergraduates and, with Large's book, presents an informal history of several of the important contributions in the development of plant pathology that I would not hesitate to recommend to graduate students.

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Biodiversity of Fungi: Their Role in Human Life

Biodiversity of Fungi. Their Role in Human Life. 2005. S.K. Deshmukh & M.K. Rai, (Eds.). Science Publishers, Inc. Box 699, Enfield, New Hampshire 03784. ISBN: 1-57808-368-0 (Hardcover). 460 pp. Price: \$88.00.

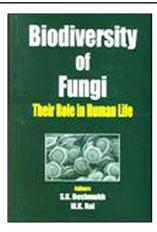
This book provides a blueprint for future fungal diversity studies while highlighting the physiologies of diverse fungal groups that impact our lives. Areas ripe for exploration are

pinpointed and the current state of knowledge is discussed for groups as disparate as tropical foliar endophytes and keratinophilic fungi on birds. Contributions from authors working in 15 countries enrich this volume.

Clark and Moncalvo enlighten us with a fungal phylogeny based on complete mitochondrial genome sequences and compare mitochondrial with nuclear ribosomal phylogenies. In "Fungi from little-explored and extreme habitats", Suryanarayanan and Hawksworth lead us through inhospitable landscapes from rocks to rumens searching for the missing fungi that make up the estimated 1.5 million extant species. Arnold brings us an illuminating chapter on tropical endophyte diversity and ecology, pointing out the limitations of extrapolation from small leaf areas. New perspectives to help untangle the *Phoma* Saccardo web are presented by Kovics et al. Potential roles of *Phoma* species in biotechnology, mycoherbicides and environmentally friendly anthraquinone dye production are galvanized with abundant references.

Four chapters are devoted to fungal bioremediation. Sasek recounts the history of ligninolytic basidiomycete degradation of soil organopollutants while Paknikar and Pethkar summarize 25 years of study on biosorption of heavy metals. Krauss et al plunge into the aquatic realm, describing both lab and field investigations and the possibilities for stimulation of degradative microbial populations in contaminated waters by aquatic hyphomycetes. Natarajan and Srinivasan revisit ectomycorrhizal fungi and describe their ability to reclaim land contaminated with heavy metals.

You will never think of feathers the same way after reading the chapter on the primitive Ascomycete family Gymnoascaceae and the miraculous feat of keratin degradation. A 5-page table details the outcome of screening 100 keratinophilic species for amount of weight lost and protein released from feathers during fungal growth. Applications of the isolated keratinases include leather conditioning, amino acid and peptide production, and degradation of the more than one million tons of feather waste produced by the U.S. poultry industry annually. This group cries



out for a systematic survey, as current distribution data is "meager and fragmentary".

A chapter entitled "Mushroom polysaccharides in human health care" summarizes anti-tumor polysaccharide data for 651 species and 7 infraspecific taxa from 182 genera of higher Hetero- and Homobasidiomycetes, with ample references. Mechanisms of immune system stimulation are explored. The authors conclude that many, if not all, basidiomycetes contain biologically active polysaccharides. As only 10% of the estimated population is known, the pharmaceutical possibilities are staggering. Eric Danell sheds light on why *Cantharellus cibarius* cultivation research has lagged behind that of other edible mushrooms, when it has an estimated world market value of £1 billion. He presents current cultivation methods and results of nutritional studies. Future challenges and prospects are identified, while talk of a Quorn-like product made from chanterelles gives our palates something to look forward to.

The genus *Neosartorya* (Eurotiales) and its significance in applied mycology is presented alongside excellent SEM images of ascospores, species key, tables of foods spoiled and temperature resistance by species, and pharmaceutical applications. A chapter on fungal diseases of ornamental plants chronicles 40 years of disease evolution and management strategies. The renewed interest in organic dyes led to the chapter listing first lichens and then other fungi in taxonomic order, along with the dye colors they can produce using different mordants. The history of fungal dyes and the chemical compounds involved are discussed.

The final two chapters focus on new technologies and how we may harness them for future biodiversity studies. Lubeck and Lubeck explain the Universally Primed PCR (UP-PCR) fingerprinting method, its applications and how it differs from RAPD, DAF and AP-PCR technology. Fungal protoplast technology and the insights it provides into cell wall-based antifungal strategies are described by Chitnis and Deshpande. The methods section highlights current protoplastation techniques with appropriate references.

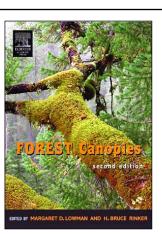
The index is concise and useful. This book will bring any mycologist up to date on recent discoveries in the fields mentioned. The target audience includes mycologists interested in biodiversity, fungal physiology, and degradative enzymes as well as those in applied or industrial mycology. For graduate students, it presents many fascinating areas of study awaiting thorough investigation. For introductory mycology instructors, this book provides fresh examples of fungal ingenuity and an enticing look at how much work remains to be done. Minor typographical errors, perhaps stemming from translation, do not detract from the information presented or the take-home message: unconventional thinking is required to unleash the undiscovered fungal multiplicity.

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Forest Canopies

Forest Canopies, 2nd Edition. 2004. M.D. Lowman and H.B.Rinker. (eds.). Elsevier Academic Press, 525 B Street, Suite 1900, San Diego, California 92101-4495. ISBN 0-12-457553-6, hardback, 517 pp, 62 color images, 108 b&w figures, 20 tables, 7 ½" X 10 ½". Price: \$79.95.

Why study the forest canopy ecosystem? Like the vastness of outer space and the depths of the oceans, tree



canopies represent one of the last frontiers of exploration. Most of the biodiversity on planet Earth, estimated at 30 million species, occurs in the treetops. This beautiful book documents the past 25 years of exciting research in treetops with 62 color images, 108 black and white illustrations, 20 tables, and 30 side bars with references that enliven the 26 chapters written by 59 contributors. Tree canopy research is a relatively new area of science because many of the techniques to reach the treetops such as the single and double rope climbing systems, airships, canopy rafts, sleds, cranes, towers, tram-lines, and walkways are of recent origin. The purpose in this edition is to update the advances in tree canopy research and pass on the knowledge base with all of its challenges and unanswered questions to the next generation of canopy scientists, educators, and students. This book accomplishes this and much more.

The second edition of "Forest Canopies" is an entirely new book. The chapter titles and content are different and the number of contributors has almost doubled. Three general themes: Structures of Forest Canopies, Organisms in Forest Canopies in which chapter 8, "Lichens and Bryophytes in Forest Canopies", pages 151-174, with seven pages of refeences, will be of special interest to lichenologists, Ecological Processes in Forest Canopies, are found in both editions with an added section, Conservation and Forest Canopies, in the second edition. An overview begins each thematic section. For example, the section on Structures of Forest Canopies compares the past decade based on groundbased methods of how far a standing human could reach, to how far a human can climb, usually to the treetop. This has enabled more quantification data of the upper canopy, mapping the architecture of the entire tree, exploring vertical stratification of biota, measuring factors such as age, light levels, evolutionary status, and genetics. This goes beyond individual trees and applies to the three-dimensional structure and development of forest ecosystems. A broader definition

of forest canopy is applied: "...denotes community architecture as well as species composition, nutrient cycling, energy transfer, and plant-animal interactions from the ground to the forest-atmosphere interface."

Sidebars are short canopy stories, one to five pages in length, with their own set of references intercalated within the chapters that highlight specific topics. Examples are "Measuring Canopy Structure: The Forest Canopy Database Project", another example, "The Botanical Ghost of Evolution", and still another "Arboreal Stromatolites: a 210 Million Year Record". There are many other fascinating titles highlighting innovative methods and ideas that serve to break up the more technical chapters. These sidebars, set apart by their light green background, will appeal to a more general audience.

This book would have benefited from a brief biosketch about the editors (Margaret D. Lowman and H. Bruce Rinker) because of their distinguished careers in canopy research that began in the late 1970s. The preface alone is not enough. Meg Lowman's book "Life in the Treetops" has won several book awards and serves as an inspiration for others to pursue a career in canopy biology. Her delightful prose engages the reader in such a way that broad readership will especially enjoy the chapters "Tarzan or Jane? A Short History of Canopy Biology" or "Ecotourism and the Treetops". Her pioneering research on canopy herbivory using rope climbing systems will lead by example the next generation who will follow in her footsteps. Bruce Rinker has wide ranging interests in tree canopy research especially the ecological links between treetops and soils, ethnobotany, entomology, ornithology, resource management, and canopy education and conservation. Some highlighted examples of chapters where he is author or coauthor are "Soil Microarthropods: Below Ground Fauna that Sustain Ecosystems", "Insect Herbivory in Tropical Forests", and "Reintegration of Wonder into the Emerging Science of Canopy Ecology".

A survey of the organisms in the forest canopy includes such diverse groups as lichens, bryophytes, vascular epiphytes, mistletoe, mites, micro-arthropods, tardigrades, and vertebrates. Chapter 4, "Vertical Organization of Canopy Biota" also includes fungi and bacteria, invertebrates, epiphytes, vines, amphibians and reptiles, birds, and mammals with each group limited to one or two pages of text. There are gaps in our knowledge of canopy bacteria, fungi, and protists, including groups such as the myxomycetes, dictyostelids, and protostelids that are not even mentioned. Corticolous myxomycetes which grow, develop, and sporulate on the bark of living trees from ground level to the treetops should have been included since references exist dating from the 1970's. Certainly the biodiversity and role of fungi in forest canopies

should encourage the next generation of mycologists to vertically explore the bark surface of living trees. More research on the taxonomic communities of micro-organisms, especially bacteria, myxobacteria, cyanobacteria, green alge, fungi, and protists, will be new data for future chapters in the next edition of forest canopies.

Information in tree canopy science is growing by leaps and bounds on a global scale. Many of the references are after the year 2000 so the editors included and updated current references just prior to publication. No glossary is included. Tree canopy science has developed to a point where a set of basic terms would be helpful to standardize a working vocabulary. A user-friendly, alphabetized, 16-page index includes page numbers to topical subjects, figures, tables, and genera that aid in finding a wide array of key terms and thematic areas in the book.

Elsevier Academic Press has produced a book whose design, format, and organization make it an easy and enjoyable read. The chapters are logically arranged. In addition, the reader is effectively guided by topical boldface headings, ample white space, and font size so reading this book is easy on the eyes. Illustrations are tipped in at the appropriate spot in relation to the text narrative instead of grouping the color images as a group of plates at the end of the chapter or at the back of the book. The lead in artwork and quotations add a touch of class to the major sections of the book.

This book is recommended to a general audience interested in the biodiversity, exploration, and conservation of tree canopy ecosystems on a global scale; included in this group are conservationists, environmentalists, naturalists, citizen action groups, educators, ethicists, and politicians at local, state, and national levels. In addition, professional scientists working as botanists, ecologists, foresters, and zoologists will find useful information related to their fields of study. Finally, educators should consider using "Forest Canopies" as a textbook for seminars or special topics courses offered at colleges and universities.

This book is well worth the price and is a bargain when the many color images are considered. Every library and person who values the importance of trees and forests to the future of our planet should buy this book.

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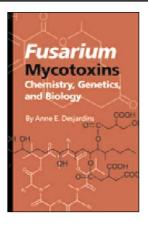
Fusarium Mycotoxins: Chemistry, Genetics, and Biology

Fusarium Mycotoxins: Chemistry, Genetics, and Biology. 2006. AnneE. Desjardins. APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121, aps@scisoc.org, www.shopapspress.org. ISBN: 09-89054-335-6. 268 pp. Price: \$89.00.

Species of *Fusarium* are known historically for contaminating crops and causing illness in animals and humans. This comprehensive book examines

the chemistry and biology of mycotoxins produced by *Fusar-ium* species and their influence on humans, animals, and the environment. An embellished cover containing chemical structures makes this book easy to pick up.

Following a short introduction to the genus, the book is subsequently divided into two major portions: mycotoxins and characteristics of individual *Fusarium* species. A table of contents, an expansive literature cited, and index also provide organization. A comprehensive historical review is presented, which then transitions into risk assessment and chapters containing the three major mycotoxins—trichothecenes, zearalenones, and fulmonisins. Each mycotoxin chapter contains subheadings of chemistry, identification and analysis, natural occurrence, genetics, enzymes and genes, biological



activity in animals and plants, and plant breeding, if the information is known. Five other mycotoxins (beauvericins, enniatins, fusaproliferins, fusaric acids, fusarins, and moniliformins) round out chapter four, and other metabolites like gibberellins are found in chapter five.

The author focuses on mycotoxin management, rather than elimination, since fungi will always be present in the environment. More time is devoted to the trichothecenes and a table containing their natural occurrence and molecular weights with oxygenation and esterification positions provides a chemistry background. Due to the chemistry content, one should already have a sufficient background in chemistry or molecular biology to fully appreciate this text. A description of 19 genes, their representative enzymes, and a comprehensive biosynthetic pathway that begins with farnesyl pyrophosphate and ends with T-2, nivalenol, or deoxynivalenol is presented. The biological activity of T-2 on plants and animals is presented in an easy to interpret table. Zearalenones and their known attachment to estrogen receptors are discussed. Inhibition of sphingolipid metabolism by fumonisins, and representative genes and the conversion of acetate to FB1, FB2, FB3, and FB4 are also discussed. Mycotoxin identification methods via UV absorption, and chromatography (thin layer, HPLC, GC/MS) are also mentioned.

The individual species section provides valuable information regarding 42 species. An interesting table compares

Continued on following page

the species and mycotoxin knowledge from 1984 to 2005. She highlights new species and newly discovered mycotoxins and really brings to life major advances in the field. Desjardins provides the who and when the species was first described, as well as climate and distribution, characteristics of colony color and formation on agar plates, macro- and micro-conidia and molecular methods used to help identify each species. Pictures of the individual species conidial features and agar growth would have been helpful to make them more distinguishable.

This book is very well organized, which makes the presentation simple and elegant for such a comprehensive and important topic. Tables and pictures of chemical structures and known metabolic pathways bring the topic to life. Readers need both biological and chemical backgrounds in order to fully appreciate this text. Topics flow in logical order and any mycologist, microbiologist, or agronomist working on *Fusarium*, or someone simply wanting to understand better mycotoxins and *Fusarium*, would benefit from this textbook.

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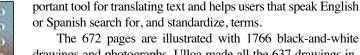
Nuevo Diccionario Illustrado de Micologia

Nuevo Diccionario Ilustrado de Micología. 2006. Miguel Ulloa, Richard T. Hanlin. APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121, aps@scisoc.org, www.shopapspress.org, ISBN: 0-89054-341-0. 672 pp. Price: \$99.00

There is more than a dictionary in Ulloa and Hanlin's *Nuevo Diccionario Ilustrado de*

Micología; in fact, it is an exhaustive list of defined technical terms, illustrations, and photographs related to mycology.

Nuevo Diccionario Ilustrado de Micología presents approximately 5000 terms, 1200 more than its predecessor version Illustrated Dictionary of Mycology, published in 2000 by the same authors. Many of the new terms are prefixes and suffixes used in compound and derived words with over 300 word roots. There are no descriptions of taxa in this book similar to what one finds in Ainsworth & Bisby's Dictionary of Fungi, 2001, 9th edition, but the technical terms described are very detailed relevant to different fields of mycology. The terms are carefully cross-referenced. Each entry includes the etymology of the word in Latin or Greek followed by the equivalent term in English. When it is appropriate, the user will find antonyms, synonyms, and related terms at the end of each definition. All of the definitions include examples of one or more taxa that have the characteristic being defined. Many entries have short explanations of terms used in the definitions or even of processes involved with the term. For example, the explanations for ontjom, pozol, tapé ketella, and tempeh kedele are almost like recipes. Fungal diseases are also described and illustrated and a long list of diseases is found after micosis. To further help, one of the appendices lists each English term, in alphabetical order, followed by its Spanish equivalent. This makes Nuevo Diccionario Ilustrado de Micología a very im-



drawings and photographs. Ulloa made all the 637 drawings included in the book. They are well chosen and relevant, helping to clarify the definitions. Multiple illustrations often accompany each term, which showing the range of use of the designated term and gives examples from different taxa of fungi.

This Spanish version has improved and expanded appendices. As mentioned above, the English-Spanish glossary reinforces the bilingual feature of the book. There is an outline of the classification of the taxa used as examples in the book that helps place the names in a taxonomic context. Another helpful appendix, not included in previous versions (Ulloa, M. 1991. Diccionario Ilustrado de Micología. UNAM; Ulloa, M., R. Hanlin 2000. Illustrated Dictionary of Mycology. APS Press) includes a list of the 1100 illustrated taxa and the terms that accompany each illustration. This list and the outline of the classification make the book more interesting and a great tool for teaching.

The book has a clean layout and the illustrations for the terms are effective and easy to find. It is definitely not a pocket book, but the hard cover is well bound and the large format makes it comfortable to handle. The only downside is the unaffordable price. Although this book is worth the cost, I wonder how to get it into the hands of Latin American mycologists, where it will be of a great use.

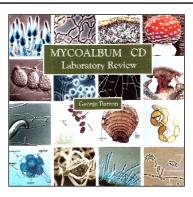
Nuevo Diccionario Ilustrado de Micología is an invaluable book for teachers in any field of mycology, biology, ecology, and serious aficionados, for those using keys to identify fungi (all shapes are described and illustrated!), or anyone interested in reading mycology texts in Spanish. Last but not least, every mycology student should have access to this wonderful volume.

> Maria Alice Neves
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MycoAlbum CD: Introductory Mycology – Laboratory Review

MycoAlbum CD: Introductory Mycology -Laboratory Review. 2006. George L. Barron. Mycographics, P.O. Box 21042, Canada Post, 35 Harvard Rd., Guelph, Ontario N1G 3A0, CANADA. Standard Version. ISBN 0-920370-01-2 at US \$25. Containing album of 950 pages with 1050 an-



notated illustrations of fungi at 1024 x 768 pixels. **Instructor's Version**, ISBN 0-920370-02-0, at US \$35. Purchased through Mycographics, mycographics@rogers.com.

I recently received a copy of George Barron's new MycoAlbum CD, an "E-book" that is probably better described as a hybrid of an introductory Mycology textbook and a guidebook to all the groups of fungi (and other organisms, historically classified as fungi). If rating it as a textbook, it gets superior marks. Ditto, with regards to it as a guidebook. Put the two together—and considering the pittance that one needs to pay to purchase a copy—anyone with interest in any facet of mycology be they student, professional, or amateur mushroom hunter will be delighted to own a copy.

MycoAlbum is not truly a stand-alone E-book, but an album on CD-ROM with more than a thousand (!) annotated illustrations of fungi and their morphological structures usually covered in a classical introductory mycology lab course. The album is a visual resource that students can use to interpret their own microscopic mounts or specimens. Dr. Barron's impetus here was that he feels it nearly impossible for students to listen to a lecture, see tons and tons of images (mycology is a very visual subject, isn't it?), and retain much of the information. *MycoAlbum* allows students to review the same material over and over again, thus reinforcing the material covered in the classroom.

Most image files are at 1024 x 768 pixel format and will go to full screen size on a 17" LCD screen with excellent clarity. At the beginning of each major section there are a few pages of MiniNotes to give students some background on the area under study. The Instructor's Version of the CD has an Image Folder with an Image Album containing 600 non-encrypted downloadable images at 800 x 600 pixels accessible by instructors for use in power point lectures, reviews, quizzes etc. I found this a particularly good idea and very easy to use; for details see www.uoguelph.ca/~gbarron.

Besides instructors for strict mycology courses, MycoAl-

bum is valuable as a source of information and images for microbiology and general biology instructors wishing to augment the fungal component of their courses. Graduate students of mycology, plant pathology and microbiology will find the album a convenient way to review or supplement their knowledge of fungi.

The classification system followed is simple and non-detailed to permit instructors to impose their own preferred system without conflict. The bulk of the album covers major divisions of fungi and fungus-like organisms. Each major section is tagged in the album for easy "flip" access. The album uses a software program called FlipAlbum that allows rapid access to all the content of the album in several different ways outlined in album instructions.

Major sections cover the following divisions with the number of illustrations in each section in parenthesis: Myx-omycota and Acrasiomycota (61), Hyphae and Hyphal Modifications (45), Cytridiomycota (12), Oomycota (30), Zy-gomycota + Trichomycetes (62), Ascomycota (135), Deuteromycota (95), Basidiomycota (170), Lichens (14). These sections take up 2/3 of the Album.

The remaining 1/3 of the album contains illustrations and information on general aspects of fungus biology including Fungi in Homes and Gardens, Antibiotics, Wood Decay, Mycorrhizae, Sporophagy and Mycophagy, Bioluminescence, Dutch Elm Disease, Parasexual Cycle, Ingoldian Fungi, Stored Cereals, Biocontrol, etc. An Appendix covers some interesting but nonessential areas such as Mushroom Identification, Parasites and Predators of Microscopic Animals, Mushroom Toxins, Photography, etc.

MycoAlbum is very user friendly and takes only a minute or two to load onto a computer; the album needs Windows 2000, ME, or XP but does not work with MacIntosh computers.

I, for one, applaud George Barron for developing such a handy and easy-to-use tool for mycological instruction. Of course, he knows a thing or two on the topic. He is a leading expert in the study of mushrooms and other fungi and has been honored by the British Mycological Society as one of its elite Centenary Fellows. Dr. Barron also has been awarded the honor of Distinguished Mycologist from the Mycological Society of America. He devotes much of his time to collecting and photographing mushrooms and other macrofungi found across the northern United States and Canada. He has written one of the best and most widely used guidebooks on mushrooms of North America and his website is fabulous. Do yourself a favor and check out his website...while there, pick up a copy of *MycoAlbum*. You'll be very glad you did!

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Les Oïdiums de Suisse (Erysiphacées)

Les Oïdiums de Suisse (Erysiphacées). 2005. Andrien Bolay. Schweizerische Mykologische Gesellschaft, <u>www.rossolis.ch</u>. Cryptogamica Helvetia 20: 1-176.

This book provides a monographic account of the powdery mildews (Erysiphales) of Switzerland but will certainly be useful to scientists interested in these fungi anywhere in the temperate region. Written pri-

marily in French, the abstract has been translated into English, German and Italian. Two keys are presented both of which are translated into English. One is based on the host plant families and the other is a key to teleomorph genus and then to species. As this key uses host plant family as the most important character, going straight to the host key will be most expedient way to identify a specimen. Differences in genera of the Erysiphales are presented graphically in a table showing



salient characteristics and recent changes in generic concepts. Each species is described following the accurate scientific name of the teleomorph and anamorph. These names reflect the most recent taxonomic changes in the nomenclature of these fungi. Accurate line drawings show the development of the oïdial state and germinating conidia, ascomata, ascomatal appendages, asci, and ascospores. The worldwide distribution is given along with notes about the host distribution and taxonomic issues. One hundred and twenty six species are included, three of which are new species. An index to fungal species and a host index ensure the usefulness of this account. The Swiss Mycological Society should be proud to have published another outstanding account of a group of fungi in their country that benefits mycology throughout the world. This book will be of use to all mycologists and plant pathologists who need to identify members of the Erysiphales.

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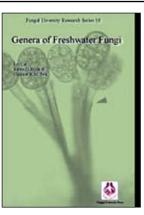
Genera of Freshwater Fungi

Genera of Freshwater Fungi. 2006. Lei Cai, Kevin D. Hyde, Clement K.M. Tsui. Fungal Diversity Research Series 18. Fungal Diversity Press, Pokfulam Road, Hong Kong, China, http://www.fungaldiversity. org/fdp/fdp.htm, ISBN 988 99320 08. 261 pp. Price: \$80.00.

Dr. Kevin Hyde and his students have contributed greatly to the knowledge of the species composition of freshwater as-

comycetes and mitosporic fungi in the Old World tropics. *Genera of Freshwater Fungi* is a compilation of 100 descriptions with black and white photographic plates of mostly wood-inhabiting meiosporic (ascomycetes) and mitosporic (hyphomycetes) taxa that Dr. Hyde and his students and colleagues have described and/or collected over 15 or more years in the tropics. Many of the pictures are identical to those from previous journal publications, but having them together in one publication is very useful.

Genera of Freshwater Fungi is divided into three chapters and a literature section. The first chapter provides a brief intro-



duction that consists of subsections, such as types of habitats in which freshwater fungi occur, biodiversity of freshwater fungi as well as a methods section outlining how to work with freshwater fungi and isolate them in axenic culture. The first chapter also provides keys to common genera of wood-inhabiting freshwater ascomycetes and mitosporic fungi, such as aero-aquatic and submerged dematiaceous hyphomycetes. The key is exclusive of the Ingoldian hyphomycetes that commonly occur on submerged leaf litter in streams and rivers.

The second chapter consists of descriptions of 51 genera of tropical and subtropical freshwater ascomycetes along with photographic plates. In addition to the description of each illustrated genus, the authors provide the type species of the genus, habitat information, a synopsis of the ordinal/familial placement, where available, and a literature section for the genus illustrated. A notes section is also provided that briefly discusses and compares the illustrated genus with other morphologically similar taxa. It would have been useful if the authors had included a geographical distribution section for the freshwater ascomycetes illustrated in chapter two.

Chapter three provides descriptions and photographic plates of 49 genera of freshwater mitosporic fungi. The fungi illustrated comprise some common aeroaquatic as well as dematiaceous hy-

phomycetes collected from freshwater. Some mitosporic fungal genera illustrated in this book, such as *Acrodictys, Bactrodesmium, Camposporium, Dictyosporium, Ellisembia, Monodictys,* etc. are commonly reported from wood in terrestrial habitats. Illustrations of the mitosporic fungi in this book make this work a useful identification manual for mycologists and ecologists studying mitosporic fungi in terrestrial habitats.

The book is hardbound and the paper used by Fungal Diversity Press is of excellent quality. The images are good, the genus descriptions are concise, and the compilation of articles cited in the literature section is very helpful considering the scattered nature of the mycological literature.

The absence of taxonomic keys for freshwater fungi often makes it difficult to work with this fascinating and extraordinary group of fungi. In my opinion, the *Genera of Freshwater Fungi* is an *essential* book for every mycologist/aquatic ecologist who is working with wood-inhabiting freshwater fungi, especially in the tropics and subtropics.

— Huzefa Raja

Department of Plant Biology University of Illinois Urbana-Champaign raja@uiuc.edu

Recently Received Books

- Atlas of the Geographic Distribution of Fungi in Poland. Fascicle 3. 2005.
 W. Wojewoda (ed.). W. Szafer Institute of Botany, Polish Academy of Sciences, ed-office@ib-pan.krakow.pl, ISBN: 83-89648-27-X, 145 pp. Price: Unknown. Review needed.
- Central European Lichens: Diversity and Threat. 2006. A. Lackoviãová, A. Guttová, E. Lisická, P. LizoÀ. Mycotaxon, Ithaca, NY. ISBN 0-930845-15-3 (Softcover) Also available in hardcover. 364 pp. Price: Unknown. *Review needed*.
- Catalogue of the Species of Plant Rust Fungi (Uredinales) of Brazil. 2005. J.F. Hennen, M.B. Figueiredo, A.A. de Carvalho, Jr., P.G. Hennen. Available as a pdf at www.jbrj.gov.br/ publica/uredinales/Brazil_Catalogue1drevisado.pdf 490 pp.
- Los Hongos en Extremadura. 2007. E.A. Martin (coordinator). Sociedad Micologica Extremena (SME). ISBN 84-690-1014-X. 274 pp. Price: Unknown. *Not for review*.
- Morphological Traits of Ganoderma lucidum Complex Highlighting G. tsugae var. jannieae: The Current Generalization. 2006. SA.P. Wasser & E. Nevo (eds.). A.R.G. Gantner Verlag K.G., Ruggell, available from www.koeltz.com. ISBN 3906-16649-X HB, 187 pp. Price: E31.00. Requested from publisher.

Previously Listed Books

- Aflatoxin and Food Safety. 2005. H.K. Abbas (ed). CRC Press, 6000 Broken Sound Parkway, NW, Suite 300, Boca Raton, FL 33487, orders@crcpress.com. ISBN 10: 0-8247-2303-1 (Hardcover). 587 pp. Price: \$178.95. *Review in progress*.
- Biodiversity of Fungi. Their Role in Human Life. 2005. S.K. Deshmukh, M.K. Rai (eds.). Science Publishers, Enfield, New Hampshire, info@enfieldbooks.com. ISBN: 1-57808-368-0.460 pp. Price: \$88.00. Reviewed in this issue.
- British Fungus Flora 9 / Russulaceae: Lactarius. 2005. R.W. Rayner, assisted by R. Watling & E. Turnbull. Print and Publications Section, Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh EH3 5LR, United Kingdom, pps@rbge.org.uk. ISBN 1 872291 34 1 (Softcover). 203 pp. Price: British pounds 12.50 (excluding postage). Review in progress.

- Checklist of Japanese lichens and allied fungi. 2006. Syo Kurokawa and Hiroyuki Kashiwadani (eds.). National Science Museum, Tokyo. National Science Museum Monographs No. 33. ISSN 1342-9574. *Review needed*.
- Common Mushrooms of the Talamanca Mountain, Costa Rica. 2005.
 R.E. Halling & G.M. Mueller. The New York Botanical Garden, 200th St. & Kazimiroff Blvd., Bronx, New York 10458-5126, www.nybg.org/bcsi/spub, ISBN 0-89327-460-7. 195 pp. Price: \$19.95. Review in progress.
- Fungi of Australia. *Septoria*. 2006. Michael J. Priest. CSIRO Publishing, P.O. Box 1139, Collingwood, Victoria 3066, Australia, www.publish.csiro.au, ISBN: 0643093761. 259 pp. Hardback. Price: AU \$110.00. *Reviewed in Jan.*-*Feb. 2007*.
- Fusarium Mycotoxins: Chemistry, Genetics and Biology. 2006. A.E. Desjardins. APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121, a p s @ s c i s o c . o r g , www.shopapspress.org. ISBN: 09-89054-335-6. 268 pp. Price: \$89.00. Reviewed in this issue.
- Genera of Freshwater Fungi. 2006. Lei Cai, Kevin D. Hyde and Clement K.M. Tsui. Fungal Diversity Research Series 18. Fungal Diversity Press, Pokfulam Road, Hong Kong, China, www.fungaldiversity.org/fdp/fdp.htm, ISBN 988 99320 08. 261 pp. Price: \$80.00. Reviewed in this issue.
- Hypocrea and Trichoderma studies marking the 90th birthday of Joan M. Dingley. 2006. Walter Gams (ed.). Centraalbureau voor Schimmelcultures, P.O. Box 85167, Utrecht, The Netherlands, www.cbs.knaw.nl/publications/index. htm. Studies in Mycology 56: 1-179. Price: € 60.00. Review needed.

Continued on following page

- *Hypocreales* of the Southeastern United States: An Identification Guide. 2006. G.J. Samuels, A.Y. Rossman, P. Chaverri, B.E. Overton, K. Poldmaa. CBS Biodiversity Series 4. Centraalbureau voor Schimmelcultures, P.O. Box 85167, Utrecht, The Netherlands. www.cbs.knaw.nl/publications/ index.htm. ISBN-10: 90-70351-59-5, 144 pp including 102 color plates. Price: €70.00.*Reviewed in Nov-Dec issue*.
- The Identification of Fungi: An Illustrated Introduction with Keys, Glossary, and Guide to Literature. 2006. F. Dugan. APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121, aps@scisoc.org, www.shopapspress. org. ISBN 0-89054-336-4, 182 pp. Price: \$65.00. Review in progress.
- Insect-Fungal Associations: Ecology and Evolution. 2005. F.E. Vega & M. Blackwell (eds). Oxford University, Oxford, United Kingdom, www.oup.com/us, ISBN 0-19-516652-3, 333 pp. Price: \$49.50 (hardbound). *Review in progress*.
- Les Champignon Lichénisés de Suisse. 2004. Philippe Clerc. Schweizerische Mykologische Gesellschaft, www.rossolis.ch. Cryptogamica Helvetia 19: 1-320. *Review needed*.

- Les Oïdiums de Suisse (Erysiphacées). 2005. Andrien Bolay. Schweizerische Mykologische Gesellschaft, www.rossolis.ch. Cryptogamica Helvetia 20: 1-176. *Reviewed in this issue*.
- Monograph of the Genus *Hemileia* (Uredinales). 2005. A. Ritschel. Bibliotheca Mycologica 200: 1-132. www.schweizerbart.de/pubs/series/bibliotheca-mycologica-59.html. ISBN 3-443-59102-7. Price: €55.00. *Review in progress*.
- MycoAlbum CD Introductory Mycology Laboratory Review. 2006. G. Barron. For availability, contact the author: www.uoguelph.ca/~gbarron/. Over 1,000 illustrations. 2 CDs. US \$25 plus shipping and handling for professional biologists, US \$15 plus S & H for students. An Instructor's Version US \$35 plus S & H includes an image folder with over 600 downloadable images at 800 x 600 pixels for power point presentations. *Reviewed in this issue*.
- Nuevo Diccionario Ilustrado de Micología. 2006. Miguel Ulloa and Richard T. Hanlin. APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121, a p s @ s c i s o c . o r g , www.shopapspress.org. ISBN: 0-89054-341-0. 684 pp. Price: \$99.00. *Reviewed in this issue*.

- 100 Years of Fungal Biodiversity in Southern Africa. 2006. P.W. Crous, M.J. Wingfield, B. Slippers, I.H. Rong, & R.A. Samson (eds.) Centraalbureau voor Schimmelcultures, P.O. Box 85167, Utrecht, The Netherlands, www.cbs.knaw.nl/publications/index.ht m. Studies in Mycology 55: 1-305. Price: € 65.00. *Reviewed in Sept.-Oct. issue*.
- Phyllachoraceae of Australia. 2006 Ceridwen A. Pearce and Kevin D. Hyde. Fungal Diversity Research Series 17. Fungal Diversity Press, Pokfulam Road, Hong Kong, China, www.fungaldiversity.org/fdp/fdp.htm, ISBN 962 86765 04. 308 pp. Price: \$80.00. *Review needed*.
- Taxonomy and Pathology of Tognina (Diaporthales) and its Phaeoacremonium anamorph. 2006. L. Mostert, J.Z. Groenewald, R.C. Summerbell, W. Gams & P.W. Crous. Centraalbureau voor Schimmelcultures, P.O. Box 85167, Utrecht, The Netherlands, www.cbs.knaw.nl/publications/ index.htm. Studies in Mycology 54: 1-115. Price: €55.00. Reviewed in Sept.-Oct. issue.
- The Triumph of the Fungi. A Rotten History. 2007. Nicholas P. Money. Oxford University Press, 2001 Evans Road, Cary, NC 27513, www.oup.com, ISBN 13-978-0-19-518971-1. 197 pp. Price: \$29.95. *Reviewed in this issue*.

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MYCOLOGICAL CLASSIFIEDS

Forest Pathogen Research Team Seeks Motivated Ph.D. Student

Lisa Castlebury, Amy Rossman and Jim White are seeking a motivated four-year Ph.D. graduate student to contribute to a project on the systematics and molecular phylogeny of a group of forest pathogens. The project involves using multigene phylogenies to determine the evolutionary history and define species in the Gnomoniaceae, Diaporthales. This group includes the cause of dogwood anthracnose and butternut canker. Funded by the National Science Foundation Partnerships in Enhancing Expertise in Taxonomy (PEET), the program includes course work at the Department of Plant Sciences and Pathology, Rutgers University, followed by research at the Systematic Botany & Mycology Laboratory in Beltsville, MD, outside of Washington, DC. The fellowship is available starting in September, 2007. If interested, please contact Dr. Jim White, jwhite@aesop.rutgers.edu, Dr. Amy Rossman, arossman@nt.ars-grin.gov or Dr. Lisa Castlebury, Lisa.Castlebury@ars.usda.gov.

Cold Springs Harbor Laboratory Plans Lectures, Meetings

Lab and Lecture Course Advanced Bacterial Genetics June 6 - 26, 2007 Cold Spring Harbor Laboratory, New York Course Instructors: John Kirby, Susan Lovett & Anca Segall http://meetings.cshl.edu/courses/c-abg07.shtml

Applications: March 15 2007

Please pass this along to colleagues or members of your laboratory who may benefit from this training. This intense course represents a cost-effective and rapid way for grad students and postdocs to come up to speed in bacterial genetics (or indeed for faculty in need of a refresher). The course includes an excellent visiting faculty in addition to the instructors.

Cold Spring Harbor Meeting **Microbial Pathogenesis and Host Response September 15 - 19, 2007** Organizers: Brendan Cormack, Theresa Koehler & James Slauch http://meetings.cshl.edu/meetings/host07.shtml

Abstract Deadline: June 20, 2007

The majority of talks are chosen from openly submitted abstracts on the basis of scientific merit. Topics include, but are not limited to:

Effector Delivery and Function Regulation of Virulence Microbial Communities Immune Response to Pathogens Genomes and Evolution of Virulence Cell-Cell Communication Microbial Trafficking in Cells and Tissues

Cold Spring Harbor Laboratory Meetings & Courses Programs http://meetings.cshl.edu

Check out the entire course program for an up-to-theminute and in-depth grasp of the latest techniques and concepts across a wide range of biological disciplines: http://meetings.cshl.edu/courses.html

MSA Collecting Photos of 75th Anniversary Celebration

To celebrate the 75th anniversary of the Mycological Society of America we are collecting photographs of Society events and people. These will be used in a slide show, posters and perhaps in other ways. We would prefer scanned images but we will consider all formats. Whether from the founding, from recent meetings or periods in between we are interested. If you have materials please contact Don Pfister at dpfister@oeb.harvard.edu.

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MYCOLOGY ON-LINE

Below is an alphabetical list of websites featured in *Inoculum* during the past 12 months. Those wishing to add sites to this directory or to edit addresses should email <jinx.campbell@usm.edu>. **Unless otherwise notified**, listings will be automatically deleted after one year (at the editors discretion). * = New or Updated info (most recent *Inoculum* Volume-Number citation)

Ascomycota of Sweden

www.umu.se/myconet/asco/indexASCO.html

Australasian Mycological Society Website for Introductory Fungal Biology (53-4) bugs.bio.usyd.edu.au/mycology/default.htm

Authors of Fungal Names (54-2) www.indexfungorum.org/AuthorsOfFungalNames.htm

Bibliography of Systematic Mycology www.speciesfungorum.org/BSM/bsm.htm

British Mycological Society (54-1) britmycolsoc.org.uk

Collection of 800 Pictures of Macro- and Micro-fungi www.mycolog.com

Cordyceps Website www.mushtech.org

Cornell Mushroom Blog, written by Cornell faculty and students, with stories, pictures, and videos about mushrooms and other fungi.

hosts.cce.cornell.edu/mushroom_blog/

Cortbase, the nomenclatural database for corticioid fungi s.l. andromeda.botany.gu.se/cortbase.html

Corticiod Nomenclatural Database (56-2) phyloinformatics.org

Coverage in Ukraine of Higher Fungal Ranks (56-2) www.cybertruffle.org.uk/lists/index.htm

Cyberliber Mycological Publications (57-4) www.cybertruffle.org.uk/cyberliber/index.htm

Cybertruffle's Fungal Valhalla (56-2) www.cybertruffle.org.uk/valhalla/index.htm

Dictionary of The Fungi Classification www.indexfungorum.org/names/fundic.asp

Distribution Maps of Caribbean Fungi (56-2) www.biodiversity.ac.psiweb.com/carimaps/index.htm

Distribution Maps of Georgian Fungi (56-2) www.cybertruffle.org.uk/gruzmaps/index.htm

Distribution Maps of Ukrainian Fungi (56-2) www.cybertruffle.org.uk/ukramaps/index.htm

Electronic Library for Mycology (56-2) www.cybertruffle.org.uk/cyberliber/index.htm

Fun Facts About Fungi (55-1) www.herbarium.usu.edu/fungi/funfacts/factindx.htm

Funga Veracruzana (53-6) www.uv.mx/institutos/forest/hongos/fungavera/index.html

Index of Fungi www.indexfungorum.org/names/names.asp

ING (Index Nominum Genericorum) Database (52-5) ravenel.si.edu/botany/ing/ingForm.cfm

Interactive Key, Descriptions & Illustrations for *Hypomyces* (52-6) nt.ars-grin.gov/taxadescriptions/hypomyces/ Interactive Key to *Hypocreales* of Southeastern United States (57-2)

nt.ars-rin.gov/taxadescriptions/keys/HypocrealesSEIndex.cfm

ISHAM: the International Society for Human and Animal Mycology www.isham.org

Libri Fungorum Mycological Publications (57-4) 194.203.77.76/LibriFungorum/Index.htm

Mycologia On-Line (53-3, page 18) www.mycologia.org

Mycological Progress (52-3) www.mycological-progress.com

The Myconet Classification of the Ascomycota www.fieldmuseum.org/myconet

Mycosearch web directory/search engine (51-5) **www.mycosearch.com**

Mushroom World [new Korean/English site in 2001] (51-6) www.mushworld.com

NAMA Poison Case Registry (51-4) www.sph.umich.edu/~kwcee/mpcr

Northeast Mycological Federation (NEMF) foray database home.att.net/~gyetter/nemf/index.htm

Plant-associated Fungi of Brazil (54-2) **nt.ars-grin.gov** (Select Search Fungal Databases, option 3, Host-Fungus Distributions)

Pleurotus spp. www.oystermushrooms.net

Rare, Endangered or Under-recorded Fungi in Ukraine (56-2) www.cybertruffle.org.uk/redlists/index.htm

Registry of Mushrooms in Art Website members.cox.net/ mushroomsinart/

Searchable database of culture collection of wood decay fungi (56-6, page 22) www.fpl.fs.fed.us/rwu4501/index.html

Species of Glomeromycota Website (55-3) www.amf-phylogeny.com

Systematics of the Saprolegniaceae (53-4) www.ilumina-dlib.org

Tripartite Similarity Calculator (55-1) www.amanitabear.com/similarity

TRTC is one of the largest *Fungarium* in North America. It houses about half a million fungal specimens including about 1,000 types. **bbc.botany.utoronto.ca/ROM/TRTCFungarium/home.php**

U.S. National Fungus Collections (BPI) Complete Mushroom Specimen Database (57-1, page 21) www.ars.usda.gov/ba/psi/sbml

Website for the mycological journal Mycena (56-2) www.mycena.org/index.htm

Wild Mushrooms From Tokyo www.ne.jp/asahi/mushroom/tokyo/

CALENDAR OF EVENTS

NOTE TO MEMBERS:

Those wishing to list upcoming mycological courses, workshops, conventions, symposia, and forays in the Calendar of Events should include complete postal/electronic addresses and submit to *Inoculum* editor Jinx Campbell at jinx.campbell@usm.edu.

April 21-22, 2007

The Mid-Atlantic States Mycology Conference (MASMC) Systematic Botany and Mycology

Laboratory, Beltsville, MD. http://nt.ars-grin.gov/masmc/

May 21-26, 2007

IUFRO WP 7.0.02: Foliage, shoot and stem diseases of forest trees Sopron, Hungary szaboi@emk.nyme.hu http://iufro.nyme.hu

June 6-8, 2007 Food Mycology 2007 (ICFM) Key West, FL www.foodmycology2007.com

July 13-27, 2007

Field Mycology Bio 523 Raquette Lake, Adirondack Forest Preserve, NY http://www.cortland.edu/summer

August 4-9, 2007 MSA Meeting

Baton Rouge, Louisiana Louisiana State University http://www.msafungi.org/

October 21-26, 2007 XIV International Botrytis Symposium Cape Town, South Africa http://academic.sun.ac.za/botrytis2007

December 3-6, 2007

Asian Mycology Congress (AMC) XTH International Marine and Freshwater Mycology Symposium (IMFMS) Penang, Malaysia

http://ippp.um.edu.my/amc2007

July 25-30, 2009 BSA/MSA meeting Snowbird, Utah NOTE CHANGE OF DATE

Change of Address

Send all corrections of directory information, including email addresses, directly to Allen Press

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Attn: Wendy Yoder 1445 Drew Ave. Davis, CA 95616 United States Email: wendy@wtynovozymes.com

You are encouraged to inform the Sustaining Membership Committee of firms or foundations that might be approached about Sustaining Membership in the MSA. Sustaining members have all the rights and privileges of individual members in the MSA and are listed as Sustaining Members in all issues of *Mycologia* and *Inoculum*.

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AREAS OF INT	EREST	Martin and Martin and Martin						
Mark most appropr	iate area(s)							
Cell Biology – F	Physiology	(including cytological, ultrastructural, metabolic regulatory and developr aspects of cells)						
Ecology – Patho	ology	(including phytopathology, medical mycology, symbiotic associations, sapro relationships and community structure/dynamics)						

Genetics – Molecular Biology (including transmission, population and molecular genetics and molecular mechanisms of gene expression)

Systematics – Evolution

(including taxonomy, comparative morphology molecular systematics, phylogenetic inference, and population biology)

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