# noculum

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#### Newsletter of the Mycological Society of America

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#### ~Important Dates ~

February 8: Deadline: *Inoculum* 52(2)

March 15: Deadline for MSA abstracts http://www.erin.utoronto.ca/~janderso/ msa/

March 15: Deadlines - Smith, Martin-Baker April 1: Deadlines - MSA Distinctions, Mentor Student Travel Awards April 2: MSA Graduate Fellowship

August 25-29: MSA 2001 Salt Lake June 22-29: MSA 2002, Corvallis OR

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## The Edible Psathyrellas of Haiti

by Ángel M. Nieves-Rivera

Questions or comments should be sent to Ángel via the Department of Marine Sciences, University of Puerto Rico, P. O. Box 9013, Mayagüez, PR 00681-9013 or Email (anieves@coqui.net). The author thanks Profs M.O. Pierre, F. Boncy Taylor and Dr. D.J. Lodge for their cooperation during the course of this study.

Fungi have been little studied in the Antilles in general because the endemic population did not eat or use them for other purposes. Haitians have recognized mushrooms for many years, and these fungi have played an important role in their cuisine. Rodríguez-Gallart (1989) and Zanoni *et al.* (1989) were the first to report on the consumption of a basidiomycete by the Haitians in the literature, but unfortunately they did not identify the fungal species. Zanoni *et al.* (1989) listed two mushrooms (one edible, the other inedible) from a compilation of Haitian Créole names and uses of plants (and fungi) from the Parc Historique National in Milot. Akers & Boncy (1993) were the first to identify the edible mushrooms as a species of *Psathyrella*. The purpose of this report is to document the mycophagy of *Psathyrella* by Haitians, and disseminate Haitian recipes for them.

The genus *Psathyrella* (Coprinaceae: Agaricales) is represented by 600 species; of these, 414 are known from North America (Hawksworth *et al.* 1995). This genus is distinguished from the rest of the coprinaceous mushrooms because its spores are easily discolored at contact with sulfuric acid (Miller 1981). *Psathyrella* was treated in further detail by the monographic works of Kits van Waveren (1968), Smith (1972), and Pegler (1977) and a regional mycota by Pegler (1983). The species, *P. gracilis*, is the type species for this genus (Pegler 1983).

Recently, I received news that a sister of one of my classmates, Mrs. Myrtho O. Pierre (MOP), brought from Haiti a package with edible dried mushrooms. MOP told me that in northern Haiti, there is a tradition of local commerce based on the collection, selling, and consumption of a

species of *Psathyrella*. Locally the basidiomycete is called "djon-djon", a Haitian Créole word meaning 'fungus' (Zanoni *et al.* 1989). Other variations to the name are: "djon-djon", "dyo-dyo" or "djô-djô" (Delbeau 1990), or "diondion" (Akers &

"Folklore d'un champignon Haitienne: Psathyrella" (= Folklore of a Haitian mushroom: Psathyrella).

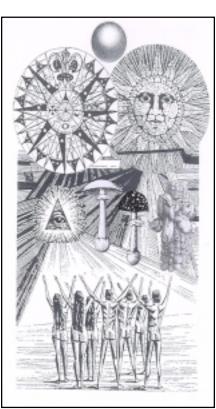


Boncy 1993). But regardless of the phonetics or grammar, the common name may not refer to a particular species, and is taxonomically ambiguous. For example, "djon-djon latè" refers to an inedible mushroom of an undetermined species (Zanoni et al. 1989). One author considered that djon-djon referred to the edible mushroom, Boletus aereus (= B. aretus sensu [Delbeau 1990]). This species is found in the eastern US, so it is a possibility for Hispaniola, but this Boletaceae has not been collected in recent expeditions (Lodge pers. comm.). Boletus aereus basidiomata occur as an ectomycorrhizal with Quercus, which does not occur in the Caribbean. Akers & Boncy (1993) reported that it referred to a Psathyrella sp., possibly an undescribed species of the section Candolleana in the subgenus Candolleana based on an identification by Dr. D.J. Lodge. Dr. Lodge (USDA-Forest Service, Forest Products Lab, Luquillo, PR), informed me that she had identified Boncy's collection as Psathyrella cf./aff. coprinoceps in subgenus Pannucia, section Candolleana. The collection sent by Akers & Boncy differs from the description of P. coprinoceps in Pegler (1983) primarily in the smaller cheilocystidia (14.5-16 x 8 vs. 22-32 x 14-17 µm).

Psathyrella coprinoceps was originally described from Cuba, but is also widely distributed in the continental USA. This species fruits during the rainy season, primarily between August and October (Miller 1981). According to Pegler (1983), P. coprinoceps has been reported in mesophytic forest growing on wood of Erythrina sp. on the islands of Cuba, Dominica, Guadaloupe, Martinique and Trinidad. Zanoni et al. (1989) reported djon-djon growing on dry trunks of Cecropia peltata (probably C. schreberiana).

In Haiti the collection and consumption of a basidiomycete, presumably *P. coprinoceps*, has been observed in the Departement de l'Artibonite, particularly in the town of Saint Michel de l'Atalaye; the valley of the Plateau Central; and in the Departement du Nord, in the towns of Ouanaminthe (also known as Juana de Méndez), and

Milot (Zanoni et al. 1989, Pierre pers. comm.). In general Haitian forests belong to two forest types: humid subtropical forest, which is found in patches throughout most of the country; and subtropical dry forest (Anonymous 1972). Haiti's forests only cover 4 to 5% of the territory because of deforestation (Anonymous 1972). Few mycological surveys have been conducted in Haiti (Benjamin and Slot 1969), while the Dominican Republic has received slightly more attention (Rodríguez-Gallart 1989, 1990, 1997; Lodge et al. 2000). Stevenson (1975), Pegler (1983), Nishida (1989), Lodge (1996), and Nieves-Rivera et al. (1999) summarized the most important mycological collections in the Greater and Lesser Antilles. More recently, Lodge et al. (2000) completed a survey of macrobasidiomycetes in the Greater Antilles, and those results (along with a few miscellaneous ascomycetes which were found during the study) are in various stages of publication (Samuels & Lodge 1996a & b; Guzmán et al. 1997;



" Principii allegorica ex ethnomycologica scientia" (=Allegorical origins fo ethnomycological sciences).

Poldmaa et al. 1997; Baroni & Lodge 1998; Nakasone et al. 1998; Pegler et al. 1998; Roberts 1998; Spooner et al. 1998; Nieves-Rivera et al. 1999; Baroni et al. 1999; Lodge 1999;, Miller et al. 2000; Decock & Ryvarden 2000; Lodge et al. 2000; Cantrell & Lodge 2000; and in press Ryvarden 2000a, b; see web site at: <a href="http://www.cortland.edu/nsf/ga.html">http://www.cortland.edu/nsf/ga.html</a>).

While collecting fungi across the mountains in Santiago Province, northern Dominican Republic, Dr. O.K. Miller Jr. did not find the Haitian djondjon. He did not know of similar fungi to be widely collected by the Dominicans. A scrap of material along with the copy of a thesis from Haiti left him with the very uncertain possibility that it might be P. atricastanea or P. subhyalinispora but more collection is needed for a positive identification (G. Yetter pers. comm. to D.J. Lodge). There is a possibility that more than one species of *Psathyrella* is consumed by Haitians; they also have and eat Agaricus, Cantharellus, and certainly other fungal species (G. Yetter pers. comm. to D.J. Lodge).

More recently, Mr. Gene Yetter (New Jersey Mycological Association and New York Mycological Society) contacted Dr. Lodge and told her the djon-djon of the Haitian cuisine can be found in stores of New York. Unfortunately, it turns out that the mushrooms are not so cheap. For instance, it costs \$1 for a quarter ounce of dried fruiting bodies. That comes out to \$64 a pound! And here is another remarkable flourish to the story. The stores of Brooklyn carrying the mushrooms are actually run by Koreans. The New York area has many Koreans running small food stores usually carrying excellent stuff. In this case the Korean proprietors in Brooklyn are serving Haitian customers (G. Yetter pers. comm. to D.J. Lodge). This is another neat story of cosmopolitan New York!

**Recipe for Riz djon-djon**—"Riz djon-djon" (= rice with mushrooms) is a typical dish originating from the northern part of Haiti. The basidiocarps of *P. cf. coprinoceps* are dried and the

inedible stems removed. Once cooked, these mushrooms give the dish an exquisite color, taste, and aroma. The riz djon-djon is a side dish typically served along with the main course, such as fish or "griots" (= pork) (Montas 2000). Prepare the ingredients before cooking for efficiency (Montas 2000). The ingredients are: (1) two cups of long grain rice; (2) one cup of Haitian dried mushrooms (P. cf. coprinoceps); (3) two finely chopped cloves of garlic; (4) four tablespoons of butter; (5) salt, pepper and a little thyme. Remove and discard the stipes, which are inedible, and soak the caps in a cup of hot water for 30 minutes. Sauté the rice and garlic in butter then add all other ingredients including the water used to soak the mushrooms. Cook for 20 minutes. This recipe serves six (Montas 2000).

Another recipe for P. cf. coprinoceps was provided by the mother of MOP. Place sliced caps in a cold water for fifteen to thirty minutes before cooking, and discard the stipes (inedible). Cook the rice in black water in which the mushrooms were soaked. This is the famous dish, "Riz noir" (= black rice). This dish is said to be very popular with Haitians and is served on special occasions such as birthday parties, communions, weddings, etc. I can recommend riz noir based on my own experience last year during an international dinner. I found it to be delicious, with a mild taste, and a pleasant aroma. It is highly recommended!

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## **MSA BUSINESS**

#### From the Presidents's Corner

Dear friends and colleagues:

On Thursday, November 23rd, 2000 I met with the officers and trustees of Mycological Society of Japan at the Chateau Kamiya in Ushiku City, Ibaraki Prefecture, Japan. Those present included: President, Mycological Society of Japan, Professor Yukio Harada, Vice President MSJ, Professor Kishio Hatai, and trustee Professor Yoshitaka Ono, trustee Dr. Genshiro Kawai, and Trustee, Secretary MSJ Dr. Noriko Kinjo. Former Vice President MSJ, Professor Junta Sugiyama Honorary Member of MSA was also present and it was he who put forth the initial proposal for a joint meeting along with Dr. Maren Klich of the MSA. My host and long time friend Professor Kazumasa Yokoyama from Shiga University accompanied Hope and I. The purpose of the meeting was to discuss the proposed joint meeting of MSA and MSJ in 2005 at the University of Hawaii, Hilo. The MSA Executive Council had approved this meeting as had the trustees of MSJ. During our meeting a number of general topics were discussed concerning the duration, timing, and character of the meeting. In addition, the needs for funding for both students and faculty to attend the meeting. In addition, the procedures used by both Societies in conducting their meeting were re-



From Left to Right: Dr. Noriko Kinjo, Dr. Genshiro Kawai, Professor Kazamasa Yokoyama, Professor Junta Sugiyama, President MSJ Professor Yukio Harada, President MSA Professor Orson K. Miller Jr. President MSA, Hope Miller, and Vice President MSJ Professor Kishio Hatai, Trustee Professor Yoshitaka Ono.

viewed. It was decided that both Societies would propose setting up a joint Ad Hoc committee with three members from MSA and three members from MSJ to form a six person working group. This plan will be put forth for approval by MSJ at their general meeting in mid May 2001 and by MSA at the midwinter meeting of the Executive Council held in late February 2001. If approved, it is anticipated that committee work will began in May of 2001. Professor Don Hemmes, University of Hawaii, Hilo has agreed to host the meeting. The Ad Hoc Committee would work closely with him to continue the specific plans for this meeting. It was emphasized during our initial meeting that it would be very important to seek funding for graduate students in mycology and young mycologists recently employed to attend the meeting. We all agreed that joint scientific exchange, socials, and field trips were top priorities to enable all mycologists to meet and become acquainted. The promotion of mycology, scientific collaboration, and lasting professional friendship which such a meeting can provide are certainly the goals of both Societies.

*Orson K Miller, Jr.*, President Mycological Society of America

#### From the Editor ...

For my first duty as new editor of *Inoculum*, I extend my appreciation, and I know the appreciation of the entire Society, to **Lorelei Norvell** for the outstanding job she did as editor of *Inoculum* for the past three years. Well done!!!! For those who are still unaware, Lorelei has moved on to bigger and better responsibilities, she is the current secretary of MSA.

As new editor I will do everything within my power to continue the

excellence of our newsletter. I will, of course, change certain aspects of the newsletter over time according to my idiosyncracies. Feel free to send any comments concerning the appearance or layout of *Inoculum*. I am *always* open to suggestions that will improve its quality.

As editor I will need your assistance in two important ways. First, as a professor of biology, my time is fully monopolized with teaching, committees, and research. Thus, I ask each of you to carefully edit any material before you send it to me. It would be a good idea to have one of your colleagues review the material also. Second, to give me the little extra time needed to prepare each issue of *Inoculum*, I am moving the deadline dates for each issue to the 8th of the month. Therefore, the **deadline for the next issue is February 8, 2001**. The editor thanks you for your help and wishes everyone a happy and joyous new year.

– Donald Ruch

#### Embarrassing Additions, Omissions and Corrections

We, the Editor of *Inoculum* Past, apologize for the following errors:

The name of Honorary MSA Member, **Dr. Ludmila Marvanova** (Czech Republic), was spelled incorrectly on last issue's Honorary Member list (*Inoculum* 51(6):15). Please note that her last name is spelled with TWO "v's".

Despite a statement to the contrary on *Inoculum* 51(6):20, "Hemp Diseases and Pests..." was NOT reviewed in the last issue. The review, which can be read in this issue, was pulled at the last minute because formal approval of the review by Amy Rossman's supervisor had not yet been received. Hemp and the US government, you know.

Mangled photo credits: The current Editor is talented, but he did not take the photo of himself, as erroneously noted on page 11 of the last issue. **David Geiser** took that often-used photo at the 1999 MSA Annual Breakfast meeting in St. Louis. Also, **Eric – not Ron – Snowden** took the artistic photo of Laurel Carroll published on the same page.

- Lorelei Norvell

#### YEAR 2001: CALL FOR PAPERS

The Annual Meeting of the MYCOLOGICAL SOCIETY OF AMERICA,

a joint meeting with APS and SON,

will be held on August 25-29

in SALT LAKE CITY, UTAH

The Society cordially invites those who are participating in a symposium or who wish to present a paper or poster to visit the MSA abstract submission web site:

http://www.erin.utoronto.ca/~janderso/msa/

To be listed on the program each contributed paper, poster and symposium presentation must be submitted separately, and an abstract must accompany each submission.

Graduate students must indicate whether they wish to be considered for a prize for the oral presentation or poster that is most outstanding in mycological content and manner of presentation.

Complete instructions and full abstract searches are available on the web-site.

## Submission Deadline is March 15, 2001

No late submissions will be accepted due to a tight publication schedule for this meeting.

Questions should be directed to Jim Anderson < janderso@credit.erin.utoronto.ca> 905-828-5362; FAX 905-828-3792

#### Officer & Committee Reports

#### **MSA Council Email Express**

Since October 15, MSA Council or the MSA Executive Committee has taken the following actions:

*Email Council Poll 2000-4* – On November 7, in response to a request by IMC7 coordinator Leif Ryvarden, the Executive Committee waived the usual \$250 fee for a one-time use of the MSA membership list so as to promote the Oslo 2002 Congress.

*Email Council Poll 2000-5* – On November 14, MSA Council approved payment of an IUMS invoice that incorporates a fee-change and rate increase of \$38 for the upcoming year.

Email Council Poll 2000-6 – On December 4, the Executive Committee approved paying Al Torzilli's registration fees at the December 7-8 National Conference on Science, Policy, and the Environment on December 8. Al served as personal Society representative at this important Washington, DC, conference convened in part to advise the incoming USA President (whomever he may be) on science and the environment.

*Email Council Poll 2000-7* – On December 7, MSA Council approved extensions of the editorial (Associate Editor, *Mycologia*) terms of Lori Carris and Al Torzilli.

- Lorelei Norvell, Secretary

#### Culture Collections Committee Correction

Lynn Sigler, Immediate Past Chair, was inadvertently omitted as a member of the Culture Collections Committee in *Inoculum* 56(1):13. Below is the revised roster for the committee.

Culture Collections Committee Jack Fell (1998-2001), Chair <ifell@rsmas.miami.edu>

Lynne Sigler (1999-2002), Immediate Past Chair

<Lynne.Sigler@ualberta.ca>

**Keith Seifert (1999-2002)** 

<seifertk@em.agr.ca>

Albert Torzilli (1999-2003)

<atorzill@gmu.edu>

#### MSA Foray -- 2001

The annual MSA foray will be held on Saturday, August 25 and will be hosted by the Mushroom Society of Utah, a NAMA affiliated club of about 60 members. Ardeen Watts is serving as our local foray representative. We will collect in the Uinta Mountains, the only mountain range in the US which runs East and West. Two hundred and thirty-seven thousand acres of the tract are designated as the High Uintas Primitive Area, a federal preserve occupying parts of Ashley and Wasatch National Forest. We will enter at Kamas, Utah, at an elevation of 6,500 ft. A paved road runs through the heart of the area reaching an elevation of 10,778 ft at Bald Mountain Pass. Five plant zones are represented: the Arctic on the grassy moss- and lichen-covered treeless peaks above 11,000 ft; the Hudsonian marked by Engelmann spruce and alpine fir, usually from 9,000 to 11,000 ft; the Canadian with white balsam, blue spruce and aspen as low

as 7,000 ft; the Transition between 6,000 and 7,000 ft represented by scrub oak and yellow pine; and the Upper Sonoran with its juniper and sage below 6,000 ft. Indigenous flora includes twenty-five genera of grasses, thirty different shrubs, and more than one hundred types of herbs and weeds. The pine, spruce and fir are varied with quaking aspen, pinon pine, mountain ash, hickory, juniper and scrub oak. A great portion of the region is occupied by grassy parks, open meadows, and heavily forested slopes, above which the barren peaks rise boldly. Registration is required for the foray and is limited to 135 participants. The cost, still to be determined, includes transportation, a boxed lunch, additional beverages for both the morning and afternoon collection sessions, and a post-foray lab. We will leave at about 8:30 AM and return around 5:00 PM. If you have any questions, please contact Don Ruch, Foray Coordinator, at 765-285-8829 or <druch@bsu.edu>.

## REGISTRATION: 2001 MSA MEETING

Registration for the MSA/APS/SON Meeting on August 25-29, 2001 in Salt Lake City, Utah

will be through **The American Phytopathological Society**at

http://www.apsnet.org/

## Mycological Society of America 2000 Awards Announcements and Call for Nominations

#### **MSA Distinctions**

For over 20 years the Mycological Society of America has been recognizing excellence in research, teaching and service among its membership by awarding honors of distinction such as the Distinguished Mycologist Award, the Alexopoulos Prize, and the William H. Weston Award for Excellence in Teaching. Last year the MSA Council, with the help from the newly formed Distinctions Committee, established a new honor, the MSA Fellows award, to be presented each year to two outstanding mycologists midway through their distinguished careers. Please help us to recognize and honor our distinguished colleagues and mentors by submitting nominations for these awards to the Distinctions Committee.

Note: The Distinctions Committee is responsible for evaluating nominees and selecting recipients of the Distinguished Mycologist Award, the MSA Fellows awards, the Alexopoulos Prize, and the William H. Weston Teaching Award. Committee members are not eligible to nominate or be nominated for these awards.

#### **Members of the Distinctions Committee:**

Chair, Dr. Ian K. Ross -- Dept. MCD Biology, University of California Santa Barbara, CA, USA 93106. Phone: (805)893-2784. Fax: (805)893-4724. Email: ross@lifesci.ucsb.edu

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**Dr. Jack D. Rogers** -- Dept. Plant Pathology, Washington State University, P.O. Box 646430, Pullman, WA USA 99164-6430. Phone: (509)335-9541. Fax: (509)335-9581. Email: rogers@wsu.edu

#### Distinguished Mycologist Award

Awarded annually to an individual who has been outstanding in his or her mycological career. This is one of the highest awards to be bestowed by the MSA and is intended to mark a distinguished career. Nominees for this award will be evaluated on the basis of quality, originality, and quantity of their published research, and on the basis of service to the MSA or to the field of mycology in general.

#### **Application Deadline:** 1 April 2001.

The criteria for nomination are currently under review and will not be finalized until the MSA Executive Committee meets in February. Anyone preparing a nomination folder should follow current guidelines. The current guidelines can be found in *Inoculum* 51(1):8 or on the MSA Homepage <a href="http://MSAfungi.org">http://MSAfungi.org</a>>. The

criteria for nomination on the MSA web site will changed as soon as the new guidelines are approved, and nominators might be asked to double check the new criteria in late February.

**Apply to:** The nominator should prepare four copies of the completed nomination folder and send one copy to each of the four members of the committee (addresses above). Each copy of the completed application must include all required documents.

Note: The Chairperson of the Distinctions Committee will appoint ad hoc committee members in place of committee members whose major professor may be nominated for the award. The committee may choose to make more than one award or no award in a given year, if it is appropriate. Presentation of the award, a plaque, will take place at the awards ceremony at the annual meeting of the

MSA. The recipient will be notified in time to plan to attend the presentation. The name of the winners of the award will be published in *Inoculum*.

#### **MSA Fellows**

Nominees will be evaluated primarily on the basis of quality, originality, and quantity of their published research, and on the basis of service to MSA or to the field of mycology in general.

**Application deadline:** 1 April 2001.

The criteria for nomination are currently under review and will not be finalized until the MSA Executive Committee meets in February. Anyone preparing a nomination folder should follow current guidelines. The current guidelines can be found in *Inoculum* 51(1):8-9 or on the MSA Homepage <a href="http://MSAfungi.org">http://MSAfungi.org</a>>. The criteria for nomination on the MSA

## MSA BUSINESS continued

web site will changed as soon as the new guidelines are approved, and nominators might be asked to double check the new criteria in late February.

**Apply to:** The nominator should prepare four copies of the completed nomination folder and send one copy to each of the four members of the committee (addresses above). Each copy of the completed application must include all required documents.

Note: Although the committee seeks to make two awards annually, it may choose to make one or no award in a given year in the event that there are insufficient suitable nominees. Presentation of the award, a plaque, will take place at the awards ceremony at the annual meeting of the MSA. The recipients will be notified in time to plan to attend the presentation. The names of the winners of the award will be published in *Inoculum*.

#### Alexopoulos Prize

Awarded annually to an outstanding "young" mycologist based on evaluation of his or her research. The nominees will be evaluated primarily on the basis of quality, originality, and quantity of their published work.

#### **Application deadline:** 1 April 2001.

The criteria for nomination are currently under review and will not be finalized until the MSA Executive Committee meets in February. Anyone preparing a nomination folder should follow current guidelines. The current guidelines can be found in *Inoculum* 51(1):9 or on the MSA Homepage <a href="http://MSAfungi.org">http://MSAfungi.org</a>. The criteria for nomination on the MSA web site will changed as soon as the new guidelines are approved, and nominators might be asked to double check the new criteria in late February.

**Apply to:** The Distinctions Committee (addresses above).

Note: The award consists of a plaque and a monetary award derived from the annual interest on the principle deposited in the MSA Alexopoulos Fund. Presentation of the award will take place at the awards ceremony at the annual meeting of the MSA. The recipient will be notified in time to plan to attend the presentation. The name of the winner of the award will be published in *Inoculum*.

## William H. Weston Award for Excellence in Teaching

Awarded annually to an outstanding teacher of mycology. However, if none of the nominees meets the standards of excellence acceptable to the committee, an award need not be made.

**Application deadline:** 1 April 2001.

**Requirements:** Awardee preference should be given to active teachers of either graduate or undergraduate courses in mycology. No preference should be made according to candidate's age, sex, academic rank, or type of institution (e.g., liberal arts college, agricultural school, medical school, junior college, etc.) A nominee's folder should be compiled by a responsible, qualified person who knows the nominee. The nominator (or person designated by the Distinctions Committee Chairperson in consultation with the committee, the nominee, and the nominator) should prepare the nominee's folder.

Documents required: The nomination folder should contain: (1) a current curriculum vitae, including courses taught in mycology, plant pathology and related areas. (2) A list of graduate students with research (thesis) topics, degrees and dates, publications, and current addresses. (3) A list of publications related to the teaching of mycology; textbooks; teaching seminars, symposia or workshops given by the nominee to either lay or academic

groups; and national, regional, state or local committees, panels, etc., on teaching. (4) A statement from the nominee on teaching philosophy, i.e., what the nominee personally believes it takes to make an excellent teacher, what the candidate is trying to accomplish in teaching mycology, and how various teaching techniques and strategies help to accomplish this goal. (5) A list of previous awards or recognition for outstanding teaching. (6) Evaluation of the nominee's teaching is to be completed by the folder compiler. This section should contain: solicited and unsolicited letters from students and colleagues who have taken or audited the nominee's courses; course evaluation forms; and any other information documenting teaching excellence. Letters of evaluation should address the nominee's interest in teaching, enthusiasm for the subject, special attributes, innovative and special techniques, ability to present clearly ideas or concepts, capacity to motivate students, concern for students, ability to relate to students, and the characteristic or going above an beyond normal teaching duties. The nominator should contact a minimum of three former students, listed by the nominee, requesting letters of evaluation.

**Apply to:** One copy of the nomination folder containing all required documents listed above should be sent to the Distinctions Committee Chairperson (address above).

Note: The nomination folder of unsuccessful nominees will be retained by the Distinctions Committee for two years, and the nominee will have the option of updating or adding to the folder each year. Presentation of the award will take place at the awards ceremony at the annual meeting of the MSA. The recipient will be notified in time to plan to attend the presentation. The name of the winner of the award will be published in *Inoculum*.

#### Student Awards

#### **Members of the MSA Awards Committee**

**Lauraine Hawkins**, *Chair* -- Pennsylvania State University at Mont Alto, Mont Alto, PA 17237-9703. Phone: (717)749-6237. Fax: (717)749-6069. Email: lkh1@psu.edu

**Jamie L. Platt** -- Dept. of Plant & Microbial Bilology, 321 Koshland Hall, University of California, Berkeley, CA 94720-3102. Phone: (510)642-8441. Fax: (510)642-4995. Email: plattj@nature.berkeley.edu

**Joseph W. Spatafora** -- Dept. of Botany & Plant Pathology, Oregon State University, 2082 Cordley Hall, Corvallis, OR 97331. Phone: (541)737-5304. Fax: (541)737-3573. Email: spatafoj@bcc.orst.edu

Wendy A. Untereiner -- Brandon University, Botany Dept, Rm. 3-9 J.R. Brodie Science Centre Brandon, Manitoba, R7A 6A9, Canada. Phone: (204)727-9603. Fax: (204)728-7346. Email: untereiner@brandonu.ca

#### **MSA Graduate Fellowships**

Two MSA Graduate Fellowships of \$2,000 each, one additional \$2,000 award (the Memorial NAMA Fellowship), and one \$1000 award (the Backus Award) are awarded annually to promising graduate students in mycology. Applicants are evaluated on the basis of their scholastic merit, research ability, and promise shown as a mycologist. The Fellowship stipends are intended as supplementary grants and may be used by the recipients in any way to further their graduate studies. They are awarded in addition to any fellowship or assistantship support from other sources.

**Funds available:** Three awards of \$2,000 each and one of \$1000.

Application deadline: 2 April 2001

Restrictions: (1) Applicants must be student members of the MSA; (2) Applicants must be candidates for the Ph.D. and resident during the tenure of the fellowship in a university in the United States or Canada; (3) Previous MSA Fellows are not eligible; (4) The NAMA Fellowship comes with the stipulation that the awardee prepare an article for McIlvainea.

**Documents required** (four copies): (1) A curriculum vitae that includes a paragraph concerning the student's training in preparation for the proposed work. (2) A detailed plan of study. The text of the proposal should be no longer than five pages, single-spaced. See below for

suggestions. (3) Two letters of recommendation, one of which is from the student's advisor. (4) Graduate school transcripts showing courses taken, grades received, student Social Security number and Student ID number. Xerox copies are acceptable if signed by the advisor. Due to the great variation in computer hardware and software in use, no materials will be accepted by email or in attachments. Send all materials to us on paper!

Suggestions for the Plan of Study: (1) Use a one paragraph abstract at the beginning. (2) An introduction should explain what you want to do and why it is interesting/important. (3) A methods section should convince the reader that the project is feasible. (4) A discussion section should explain results and significance. (5) Be concise and clear. Use double spacing between paragraphs to make reading easier. Use section headings to make the organization easier to follow. Remember that the committee members reviewing the proposal probably work in areas of mycology different than your own!

Apply to: Prepare four copies of the completed application and send one copy to each of the four members of the Awards Committee: Drs. Lauraine Hawkins (chair), Joseph Spatafora, Wendy Untereiner, and Jamie Platt (addresses above). Each copy of the completed application should include all four types of information listed above.

Please mail your materials no later than March 27 to ensure that the committee members receive your package by the April 2 deadline.

NOTE: The chairperson will appoint an ad hoc member to replace any committee member who has a student applying for a fellowship or who otherwise feels a conflict of interest. The winning applicants will be notified upon selection (usually within four weeks of the closing date for applications) so that they may plan to attend the awards presentation at the annual meeting. Those applicants not notified within this time were not selected as awardees, but all applicants will be notified of their status. The stipends are awarded after confirmation of university registration.

#### **MSA Graduate Research Prizes**

Two MSA Graduate Research Prizes of \$100 each are awarded annually to the two best research papers in mycology presented orally by graduate students at the annual MSA meeting. Two MSA Graduate Research Prizes of \$100 each are awarded annually to the best student posters in mycology, presented by graduate students at the annual MSA meeting.

**Requirements:** (1) The applicant must be a member of the MSA. (2) Persons eligible for a Graduate Research Prize are M.Sc. or Ph.D. candidates or those who have been awarded the degree within

## MSA BUSINESS continued

one year of the annual meeting. (3) Previous recipients of either category of Graduate Research Prize are not eligible for a second award.

How to apply: An individual should apply for consideration for a Graduate Research Prize by so indicating on the 2001 Abstract Form for the MSA meeting. Application may be made for either, but not both, categories of Graduate Research Prizes. A student can apply for and receive both the Graduate Fellowship and a Graduate Research Prize. Include Social Security number and Student I.D. number on the Abstract Form.

**Evaluation:** The Student Awards Committee will evaluate applicants on the basis of significance of the work, creativity, appropriateness of the methods, clarity of presentation, and validity of conclusions. An effort will be made to send at least two members of the committee to each oral presentation and for all members to view the poster competition. Ad hoc members of the Awards Committee will be appointed by the Chair to avoid a conflict of interest or to facilitate the judging. These prizes will be announced at the Awards ceremony at the Social / Auction session of the meeting.

#### Martin-Baker Endowment Fund

An award to a recent (within the past five years) PhD mycologist based on proposed research and past research record.

**Funds available:** \$2000 (not necessarily to be awarded as a lump sum)

**Application deadline:** 15 March, 2000

**Documents required:** Six copies of (1) *curriculum vitae*, with publication list and alternative support sources and (2) research proposal not to exceed three single-spaced pages.

Apply to: Send <u>six</u> copies of *curriculum vitae* and research proposal to **Dr.**Arthur L Welden, 7826 Willow St, New Orleans LA 70118. Phone (504)861-7413. Email: awelden@mailhost.tcs.tulane.edu

— Arthur Welden, Co-Chair Research Awards Committee

#### Alexander H. & Helen V. Smith Research Fund

Purpose: The primary purpose of the fund shall be to encourage the study of specimens of macrofungi, fleshy Basidiomycetes and Ascomycetes, collected by Alexander H. Smith and his associates. These collections, and materials relating to them, are currently deposited at the University of Michigan Herbarium. The Fund will distribute grants-in-aid to cover all or a significant part of the expense of visiting the Herbarium and working with the collections and materials relating to them.

Criteria for Awarding Grants: Grants may be made available to members of the Mycological Society of America who are working actively on the taxonomy or floristics of the fleshy fungi, with the main emphasis on supporting high quality research. Professional and trained "amateur" (i.e. para-professional) mycologists are eligible and are encouraged to submit proposals. The individual should be at a point in their studies where having full access to Alex's material would advance the applicant's work. These grants are not intended for preliminary studies of possible lines of investigations.

#### **Methods of Choosing Recipients:**

Applications for a grant should include: (1) a proposal indicating how the study of Alex's specimens and manuscripts would advance the applicant's work, (2) an estimated budget to cover all or part of the anticipated expenses (e.g. travel, *per diem*, copying, etc.) and (3) a current *curriculum vitae*.

Recipients will be chosen by an awards committee designated by the President of the Mycological Society of America. In addition, the agreement of the Director of the University of Michigan Herbarium (or its successor as custodian for Alex's specimens and materials relating to them) to have the potential recipient(s) work there must be obtained before the grant is awarded.

Additional Matters: In the event there are no suitable applications requesting the utilization of Alex's collection's for floristic or monographic studies, the Awards Committee, at its discretion, may award grants to support field work on the fleshy fungi of North America, or for other types of studies on the fleshy macrofungi of North America. If support for a field project is awarded to an applicant, duplicate/representative collections resulting from the field work are to be deposited at the University of Michigan Herbarium. Prior arrangement should be made with the Director of the Herbarium.

Recipients of these grants-in-aid are asked to provide the University of Michigan Herbarium with copies of any publications which result from this support. A summary of activity should be forwarded to the Awards Committee in a timely manner.

In compliance with Internal Revenue Service Regulations, the grant recipient must submit all original receipts of expenditures of grant funds to the Treasurer of the MSA. The receipt of documented expenditures by the Treasurer may be necessary before complete funding of the proposal will be made.

**Application deadline:** 15 March 2001

**To Apply:** Submit application to the Research Awards Committee Co-Chair: **Dr. Joseph Ammirati, Jr.,** 4045 NE 87th Street, Seattle, WA, 98115. Phone: (206)543-1986. Fax: (206)685-1728. Email: cort@u.washington.edu

#### Mentor Student Travel Awards

For the 2001 MSA Annual Meeting, August 25-29 in Salt Lake City Utah.

Funds will be awarded to: MSA student members who are paper/poster presenters in the 2001 Annual Meeting. The mentor awards are in the names of some of our famous mycological forebears: C. J. Alexopoulos, A. Barksdale, H. Bigelow, E. Butler, W.C. Denison, H.M. Fitzpatrick, M.S. Fuller, R.P. Korf, E.S. Luttrell, J.P. Raper, H.D. Thiers, F.A. Uecker, and K. Wells.

**Funds available:** Awards consists of \$500 and a ticket to the MSA Breakfast/Business Meeting. In 2000 there were 16 awards. **Application deadline:** Received by **April 1,2001** (early applications are appreciated!).

Requirements: Applicants (1) must be MSA student members or past student members who have been awarded the degree within one year of the annual meeting, and (2) must be presenting a paper or poster at the meeting. Previous recipients may apply again; if applicant numbers are higher than the number of awards available, preference will be given to those who have won the award less than two times.

Documents required (four copies): (1) Abstract of paper or poster (note which). (2) Curriculum vita: provide telephone number and, if available, fax and email addresses, and include information on any past Mentor Travel Award(s). (3) If matching funds are available from the applicant's institu-

tion, provide an address the committee can used to officially verify the receipt of an award. (4) A letter of support from the applicant's major professor addressing the student's abilities and potential and briefly summarizing the student's current research. To assist the judging committee in making Mentor "assignments" to award winners, inclusions of comments regarding which mentor(s) would be most appropriate for the student are welcome but not required.

**To apply:** Send four copies of all four documents listed above to the Committee Chair: Dr. **Jim Clark**, School of Biological Sciences, University of Kentucky, Lexington, KY. 40506 USA. Phone: 859-257-1888. Fax: 859-257-1717. Email: <jdclar0@pop.uky.edu>

## MSA Undergraduate Research Award Winners

During October, the M.A. Student Award Committee reviewed ten very strong applications for the two undergraduate research awards. Although the choices were very difficult, the committee named the following two people for the awards:

**Charles Hernick**, working with Dr. H. Corby Kistler, on the project "Does *Fusarium graminearum* outcross in nature?" and

Nicholas Zitomer, working with Dr. Dan Royse, on the project "Development of concentrated D-fractions from *Grifola frondosa* for effectiveness against metastasis of liver carcinoma."

Nicholas C. Zitomer sent a note to us that I thought should be shared with everyone who had a hand in creating this award. It said," Thank you very much for this honor. I greatly appreciate the recognition as well as the opportunity to further my research. I would also like to thank you sincerely for offering

this opportunity to be recognized as an undergraduate. I feel that there are far too few such awards available for serious research done at this level. Thank you very much, again, for this honor."

The Student Award Committee was very impressed with the uniformly high quality of the proposals and the applicants. We all agreed that the enthusiasm contained in the applications bodes very well for the future of the MSA. We hope that funding for this award will be continued in future years as a way of encouraging young scientists to pursue their interests in mycology.

Orson K. Miller Jr., President of MSA, sent his congratulations to each of the winner. In his letters he stated the following:

"The Mycological Society of America is very anxious to recognize and stimulate young students of mycology to develop their expertise and to make contributions to the field of mycology. It is a field with many opportunities for research, teaching, and service to the community. It is our aim to stimulate youthful interest and expertise in mycology. There is no doubt that your interest and expertise has impressed our awards committee. We hope that you will keep up the good work and interest in both science and mycology.

We also recognize the vital role that teachers and mentors play in the education of our young people. Your advisors should also be congratulated for their interest in sponsoring and guiding students in mycology. I wish you continued success in pursuit of your project."

-Lauraine Hawkins

## **MYCOLOGICAL NEWS**

## News of Members

#### Peripatetic Mycology

Brad Kropp traveled to Belize at the end of last October to initiate work on mycorrhizal fungi associated with *Pinus caribaea*. He writes, "The collecting was done in the Mountain Pine Ridge reserve in the Cayo district of Belize. It was surprising to learn that the pine stands are mixed with oaks. They are, in many respects, reminiscent of pine/oak stands in the US but differ by having a tropical understory.

Collecting during the trip was good and many specimens were prepared

with corresponding field notes and photographs. It will take some time yet to finish up the microscopic work needed to name the collections. However, I came away impressed that there is a strong similarity between the mycoflora associated with pine/oak stands in Belize and that associated with related trees in the US. A good proportion of the fungi encountered were species that one might expect to find in the southern states - a few examples are *Lactarius salmoneus*, *Amanita flavoconia*, and *Strobilomyces confusus*. Others are probably endemic

to the region. Hypogeous fungi were not particularly prevalent for some reason. In spite of the fact that I spent much energy raking back the litter to find them (hard work in that humidity!), one *Rhizopogon* was the only hypogeous fungus found.

In addition to fungi, the trip was punctuated by sightings of wildlife beginning with a tapir that crossed in front of the vehicle on the first day. Other sightings were of white collared peccaries, scarlet macaws, and a group of spider monkeys."

- Brad Kropp

#### Who is That Mycologist?



A Surprise Visitor! Participants of the 26th Annual Alexander H. Smith Lakes States Foray, held at Forest Glen County Preserve in Westville, IL, were treated to a surprise visit for this individual last September. Although no one actually knew his (her?) name, I overheard several members mention that the visitor may be "Frosty Burdsall." Should you see this individual, remind him that he did not pay his registration fee.

-- Donald G. Ruch

## UPCOMING MYCOLOGICAL EVENTS

#### Mid-Atlantic States Mycology Conference

The Mid-Atlantic States Mycology Conference (MASMC) 2001 will be held at the University of Georgia in Athens, GA from March 30-April 1. Take this opportunity to get a head start on Spring and meet with your mycological colleagues in the mysterious South. Details and registration can be found at the MASMC website: <a href="http://www.botany.uga.edu/~celeste/masmc2001.htm">http://www.botany.uga.edu/~celeste/masmc2001.htm</a>.

The schedule will include workshops on Friday (in conjunction with the chytrid PEET project), a reception on Friday evening, research presentations and posters on Saturday, the annual banquet with invited speaker, Martha Powell on Saturday evening and a Fools Foray on Sunday (April 1st). For other information or questions contact **David Porter** at

 $<\!porter@dogwood.botany.uga.edu\!>.$ 

– David Porter

#### Third Mexican Mushroom Conference and Fungi-Expo 2001

The demand for mushrooms in Mexico has been outgrowing production for the last five years. This has created an interest, not only in Mexico, but also all through Latin America both in the private and public sectors. For this reason, the Guadalajara Chamber of Commerce, together with the Agrobusiness Council for the State of Jalisco and Produce Foundation, is organizing the Third Mexican Mushroom Conference and Fungi-Expo 2001. This event will be held May 16-19, 2001 in beautiful Puerto Vallarta. Further information regarding the program, dates, cost, hotel accomodations, and sponsorship can be attained via e-mail from Francisco Fernández Michel at <fungitec2000@yahoo.com.mx>or <fungiexpo@hotmail.com.>.

Francisco Fernández Michel
 Chairman 3<sup>rd</sup> MMC

## MYCOLOGICAL NEWS concluded

#### VIII<sup>th</sup> Workshop of the IOBC/ WPRS Phytopathogens Group on "Influence of A-Biotic and Biotic Factors on Biocontrol Agents"

Following the November 30-December 3, 2000 Sevilla meeting, our working group agreed to have a meeting in Kusadasi in May 2002. Colleagues from Ege University at Izmir will organize it. The workshop will take place in the famous tourist resort of Kusadasi that is equipped with all necessary facilities. Kusadasi is easily accessed from outside Turkey. It is situated South of Izmir, on the Aegean Sea and has pleasant weather during spring. Apart from being a tourist attraction by itself it is situated near Ephesus, an ancient city dating back to 3000 BC and to other ancient sites. The theme of the workshop will be: "Influence of a-biotic and biotic factors on biocontrol agents". The aim is to present research and information on biocontrol agents and their interaction with fungal and bacterial pathogens. We will emphasize: (1)

micro-climate, (2) soil/substrate/crop/ fertilization, (3) chemicals, (4) saprophytes/ non-target microorgan-isms, (5) mesofauna effect on and interaction with population dynamics/ survival of antagonists, on their biocontrol activity and the economical feasibility of the BCA.

We wish to bring together students, researchers and implementers of biocontrol of plant diseases to discuss potential improvements of biocontrol activity. We expect 150 participants from many countries to participate in the workshop, as was the case in our earlier workshops. It is too early to give you precise information about the duration and time schedule of the workshop, however, we expect that it will last 3 days and one extra day will be devoted to a touristic field trip. Presentations will be carried out orally or as posters, in English, and amply amount of time will be devoted to discussions. As was done in the past, we expect to publish short papers of the presentations in the frame of the IOBC/WPRS Bulletin. The second information circular with information

regarding time, costs, publication, dead lines etc. will be out in April 2001.

If you are interested in attending this meeting, you must register to receive a second mailing. To register contact Yigal Elad, Department of Plant Pathology, The Volcani Center, Bet Dagan 50250, ISRAEL, Phone: 97239683580, Fax: 97239683688, or email: <elady@netvision.net.il>.

- Yigal Elad, Convenor

#### Perspectives of Medicinal Mushrooms in Health Care and Nutrition in the 21<sup>st</sup> Century

This meeting will be held on September 12-14, 2001 in Kiev, Ukraine. Persons interested in receiving the second circular must complete a [preregistration] form. To obtain the form write to Dr. Elvira F. Solomko, General Secretary of Conference, M.G. Kholodyn Institute of Botany NASU, 2 Tereshchenkivska St., Kiev, 01601, UKRAINE. Tel/FAX:+380(44)2352034. Email: <e\_solomko@yahoo.com>or <solomko@mail.valtek.kiev.ua>.

## Mycological Society of America — Gift Membership Form

Sponsoring a gift membership in MSA offers tangible support both for the recipient of the membership as well as for mycology in general. Providing both Mycologia and Inoculum, a gift membership is an excellent way to further the efforts of our mycological colleagues, especially those who cannot afford an MSA membership. In addition to a feeling of great satisfaction, you also will receive a convenient reminder for renewal of the gift membership the following year.

I want to provide an MSA Gift Membership to the following individual:

Name		
Institution		
		Email
Please send renewa	ıl notices to:	
(YOUR name)		
(YOUR address) _		
Phone	FAX	Email
gree to pay \$80* for	this membership by check (payable to MSA, draw	vn on US bank) VISA Mastercard
	Name (as it appears on card)	Exp. date

## THE MYCOLOGIST'S BOOKSHELF

In this issue we review "Fungal Morphogenesis" by D Moore and

"Hemp Diseases and Pests: Management and Biological Control" by JM McPartland, RC Clarke and DP Watson, feature books received from November through December 2000, and list previously featured books received since November 1999.

Reviews are needed for several excellent books. If you have the time over the next month, check the list, send me an Email at YZJOZ@TTACS.TTU.EDU and I will try to accommodate your request.

A SPECIAL THANKS to those who have reviewed books for Mycologia. John Zak, BOOK REVIEW EDITOR

#### **REVIEWS**

**F**ungal Morphogenesis. D Moore. Cambridge University Press, 40 West 20<sup>th</sup> Street, New York, NY 10011-4211. 469 pp. Price: \$96 US. (www.us.cambridge.org).

Fungal Morphogenesis is Volume 35 in the prestigious Cambridge University Press series on Developmental and Cell Biology, joining books on topics as diverse as kidney organogenesis and the development of fern gametophytes. Moore's intention is stated in the Preface: "I believe the fungi are too important to remain in an intellectual ghetto in some faintly plant-like place which most people visit rarely, and then with unease." He wants the scientific world to appreciate the unique attributes of fungi and at several points emphasizes that fungi are not plants. Animals engulf food. Plants manufacture food. Fungi are absorptive. The life style differences between animals, plants, and fungi are crucial to determining their characteristic shapes and forms. Fungal morphogenesis is addressed as a direct manifestation of biological diversity (i.e. fungal development as a topic in its own right) and within the context of broader biological significance (i.e., fungal development as a model for understanding molecular control of morphogenetic events).

The fungal kingdom encompasses a wide variety of organisms; macroscopic and microscopic; filamentous and yeast-like; unicellular and multicellular. Filamentous fungi are modular organisms. Growth is reiterative and an individual multicellular colony can have localized regions at different stages of development. Living embedded in their food, and often responding to nutritional deprivation by sporulation, fungi are elastic in their morphological development. Moreover, their component cells, even differentiated ones, readily revert to vegetative growth. Moore makes the point that this does not mean that fungal development is less sophisticated than that found in animals and plants, but rather that the fungal life cycle is "supremely adaptable to challenging conditions."

Over 450 pages in length, the book is divided into seven chapters: "Fungi: a place in time and space," "Hyphal growth;" "Metabolism and biochemistry of hyphal systems;" "Physiological factors favouring morphogenesis;" "The genetic component of hyphal differentiation;" "Development of form;" and "The keys to form and structure." The titles reflect the centrality of the hyphal cell. Filamentous fungi live in their food; their mycelial habit allows them to

ramify through solid substrates. As they grow, they change their extracellular environment by secreting enzymes, absorbing breakdown products and elaborating chemically diverse secondary metabolites. What goes on outside the hyphae influences what goes on inside the hypha and vice versa. The major environmental cues are carbon, nitrogen, cAMP, light, temperature, aeration, and pH. Nitrogen metabolism is especially crucial in the global regulation of an array of apparently disparate morphogenetic steps. Experimental observations, in which specific cases are studied under particular conditions, must be weighed and synthesized in order to make generalizations. Moore admits "It is necessary to take the risk of being wrong in order to get some view of the overall picture," and does an admirable job of making provocative - but not reckless - hypotheses that can be tested in the laboratory.

One particularly appealing aspect of the books is the author's familiarity with, and ready usage of, the zoological literature. Fungal morphogenesis is placed within the wider literature on animal pattern formation. Much can be learned from the embryology literature. Moore's erudition also informs his coverage of secondary metabolism. It is often stated that bacteria, fungi and plants are the main producers of these natural products. Moore points out that the supposed deficit of metabolite production by animals may be a matter of semantics. Animals produce toxins, hormones and other low molecular weight metabolites that can be viewed as secondary metabolites labeled with a different name.

Competence, induction and change are the holy trinity of fungal morphogenesis. Competence is encountered over and over again: cells must be able to start the next step, but proceeding on is not inevitable. Morphogenesis is a collection of separate genetic and developmental processes called subroutines. Partial execution of a subroutine may result in an abnormal morphology. Often mycelia react to adverse conditions by producing spores, illustrating that tolerance of imprecision is an important attribute of fungal morphogenesis.

There are more questions than answers. What controls hyphal branching? What cytoskeletal rearrangements create branch initiation sites? How do factors outside the mycelium influence what goes on within individual hyphae? What role do mycorrhizal associations play in the control of fungal

## THE MYCOLOGIST'S BOOKSHELF continued

form? How do aggregations of hyphae form gills and other reproductive tissues? What evolutionary pressures mold fungal biosynthesis? How did fungi evolve?

The largest body of published information on fungal morphology is descriptive, and has been conducted with taxonomic intent. These descriptions are of enormous value in understanding the range of fungal phenotypes, but most of the descriptive studies have focused on mature fruit bodies. The developmental stages preceding carpophore formation have rarely been described. Moreover, many higher fungi will not fruit in the laboratory under currently used experimental protocols. Hence, experimental manipulations have been confined to those tractable species that do: e. g. Schizophyllum commune, Agaricus bisporus, Coprinus cinereus (lagopus). Since Moore did his Ph.D. research on the biochemical genetics of C. cinereus and has spent much of his professional career studying this basidiomycete, many of his examples are drawn from the mushroom literature. His whole-organism perspective leads to a justifiable caution about molecular reductionism. Morphogenesis is more than a playing out of predetermined genetic programs. Developmental genes are differentially expressed in different places and different times. Single genotypes may make many phenotypes.

That said, my main disappointment with this book is nevertheless the lack of coverage of the burgeoning genomics literature, especially concerning Saccharomyces cerevisiae. Although a few pages are devoted to a description of yeast mating type factors, the vast literature on S. cerevisiae molecular biology and genomics is largely ignored. Fungal Morphogenesis was published two years after the completion of the yeast genome project, so this omission is regrettable. The use of yeast DNA microarrays to study gene expression is also conspicuous by its absence.

Overall, however, my opinion is highly positive. Moore is well read. He writes well and thinks broadly. He has the rare ability to describe both the forest and the trees. Since morphogenesis is the study of the whole process by which the organization and pattern of an organism is established, a book on fungal morphogenesis must integrate biochemical, structural, genetic and molecular mycological research. Moore's synthesis is a tour de force. It is rare to find a single author work that covers such a wide breadth of topics with such a pleasing combination of knowledge and eloquence.

Tucked between the title page and the table of contents, Moore prints a John Lennon lyric: "Living is easy with eyes closed/ Misunderstanding all you see " (Strawberry Fields, 1966). Mycologists and other biologists who delve into Fungal Morphogenesis will come away with a restless scientific unease over the extent of our ignorance and

misunderstanding. This is Moore's intent. The final chapter of this fine monograph includes an apology — "This will involve extensive generalizations and potentially outrageous extrapolations" — and a challenge: "Do the research to prove me wrong." All developmental mycologists should own a desk copy of Fungal Morphogenesis and all science librarians should be alerted to order a copy for their collections.

-- Joan Bennett
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## Hemp Diseases and Pests: Management and Biological

**Control.** 2000. JM McPartland, RC Clarke, DP Watson. CABI Publishing, Wallingford, Oxon, UK, OX10 8DE, UK. 251 pp. Price: Hardback - \$90 US.

This large-format book is a thorough account of the problems encountered in growing hemp on either a large or small scale and management strategies for their control. Divided into three sections, the first one covers crop biology, including plant protection, requirements for growth, and taxonomy and ecology of Cannabis. This overview assumes little expertise on the part of the reader. Thus, for example, the major fungal groups and insect orders are reviewed here, suggesting that this book is aimed at those unfamiliar with growing agricultural crops. The second section is on the diseases and pests of Cannabis, including a chapter on fungal diseases. Because John McPartland has been studying the fungi that attack Cannabis for many years, this chapter provides a thorough summary of the literature on that subject. The 34 most important diseases caused by fungi are listed by disease name. For each disease the scientific name and a description of the causal fungus are provided as well as a section on diagnosis, disease cycle and epidemiology, cultural and mechanical control, and biocontrol. An assortment of 25 species of fungi reported on Cannabis is presented at the end of the chapter, with a description and notes for each one. The longest chapter is devoted to the 150 most commonly encountered insects and mites, with suggestions for their biological control, discussed under each major group. Emphasis is on biological control and even under the heading of chemical control such as on p. 57, the suggestion for control of cutworms is basically a home remedy, i.e., "mix hardwood sawdust, wheat bran, and water. Scatter the sticky bait at dusk. It immobilizes larvae and exposes them to their enemies." Other chapters in this section include one on the remaining assortment of organisms that attack Cannibis, ranging from viruses to slugs, non-insect arthropods, and vertebrate pests. The two

## THE MYCOLOGIST'S BOOKSHELF continued

other chapters address abiotic diseases and post-harvest problems. The illustrations in these chapters are variable in quality, ranging from elegant scanning electron micrographs (figure 5.8) to line drawings with hand lettering (figure 5.5) and uninformative photographs (figure 5.7). The 12 colored plates are extremely helpful in illustrating the insect, fungal, nematode, and miscellaneous pests and diseases. The third section on the control of diseases and pests addresses the various methods for control, specifically cultural and mechanical methods of controlling diseases and pests, biological control, and biorational chemical control. One appendix on synthetic chemicals summarizes their characteristics, while a second appendix provides a key to diseases and pests. This last feature is novel and may have

some merit for diagnosing problems; it again seems to be aimed at those with little experience in agriculture. Although one wonders whose needs this book is addressing, *e.g.*, commercial hemp grower or counter-culture individual, it nevertheless provides a comprehensive account of the reported problems and potential solutions for successfully growing this useful plant.

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#### BOOKS AND PUBLICATIONS RECEIVED FROM OCTOBER THROUGH DECEMBER 2000

- Bio-Exploitation of Filamentous Fungi. 2000. SB Pointing and KD Hyde (eds.), Fungal Diversity Press, The center for Research in Fungal Diversity, Department of Ecology & Biodiversity, Kadoorie Biological Sciences Building, The University of Hong Kong, Pokfulam Road, Hong Kong SAR, China, kdhyde@hkucc.hku.hk, Price: \$100 US. + \$16 for air mail. Requested from publisher.
- Check List of Hong Kong Fungi.
  2000. BS Lu, KD Hyde, WH Ho, JE
  Taylor, KM Tsui, MKM Wong, Y Zhou
  and DQ Zhou (eds.), Fungal Diversity
  Press, The center for Research in Fungal
  Diversity, Department of Ecology &
  Biodiversity, Kadoorie Biological Sciences
  Building, The University of Hong Kong,
  Pokfulam Road, Hong Kong SAR, China,
  kdhyde@hkucc.hku.hk, 376 pp. Price: \$20
  US. + \$8 for air mail. Requested from
  publisher.
- Common Florida Mushrooms. 2000. J Kimbrough. University of Florida Institute of Food and Agricultural Sciences (IFAS), Building 116, PO Box 110810, Gainesville, FL 32611-0810, esquires@gnv.ufl.edu, 342 pp. Price: \$20 US + shipping. Review needed.
- Colletotrichum: Host Specificity, Pathology, and Host-Pathogen Interaction. 2000. D Prusky, S Freeman, and M Dickman (eds.). APS Press, 3340 Pilot Knob Road, St. Paul MN 55121-2097. Aps@scisoc.org, or APS Press Europe Branch Office, Brokestraat 47, B-3001, Heverlee, Belgium, apspress@pophost.eunet.be, 448 pp. Price: \$99 US. Requested from publisher.

- Genera of Ascomycetes from Palms. 2000. KD Hyde, JE Taylor,J Frohlich (eds.). Fungal Diversity Press, The center for Research in Fungal Diversity, Department of Ecology & Biodiversity, Kadoorie Biological Sciences Building, The University of Hong Kong, Pokfulam Road, Hong Kong SAR, China, kdhyde@hkucc.hku.hk, Price: \$100 US. + \$16 for air mail. Requested from publisher.
- Illustrated Dictionary of Mycology. 2000. M Ulloa and RT Hanlin. APS Press, 3340 Pilot Knob Road, St. Paul MN 55121-2097. Aps@scisoc.org, or APS Press Europe Branch Office, Brokestraat 47, B-3001, Heverlee, Belgium, apspress@pophost.eunet.be, 400 pp. Price: \$49 US. Requested from publisher.
- Marine Mycology A Practical Approach. 2000. KD Hyde and SP Pointing (eds.). Fungal Diversity Press, The center for Research in Fungal Diversity, Department of Ecology & Biodiversity, Kadoorie Biological Sciences Building, The University of Hong Kong, Pokfulam Road, Hong Kong SAR, China, kdhyde@hkucc.hku.hk, 376 pp. Price: \$100 US. + \$16 for air mail. Requested from publisher.
- The Neurospora Compendium. 2000. DD Perkins, A Radford, and MS Sachs. Academic Press, 6277 Sea harbor Drive, Orlando FL 32887, or 24-28 Oval Road, London NW1 7DX, UK, ap@acad.com. 350pp. Price: \$85 US. Requested from publisher.

• Palm Microfungi. 2000. J Frolich and KD Hyde (eds.), Fungal Diversity Press, The center for Research in Fungal Diversity, Department of Ecology & Biodiversity, Kadoorie Biological Sciences Building, The University of Hong Kong, Pokfulam Road, Hong Kong SAR, China, kdhyde@hkucc.hku.hk, Price: \$100 US. + \$16 for air mail. Requested from publisher.

OF RELATED INTEREST ....

• Mycological Reference Cards (Card 1: Fungal Phylogeny & The Fungal **Holomorph Concept; Card 2:** Ascomycota Map and Glossary; Card 3 Basidiomycota map and Glossary; Card 4: Deutertomycota Map and Glossary; Card 5: Zygomycota map and Glossary; Card 6: Chytridiomycota Map and Glossary; Card 7: Oomycota map and Glossary: Card 8 Slime Mold Phyla map and Glossary). 2000. Compiled by RK Noyd. APS Press, 3340 Pilot Knob Road, St. Paul MN 55121-2097. Aps@scisoc.org, or APS Press Europe Branch Office, Brokestraat 47, B-3001, Heverlee, Belgium, apspress@pophost.eunet.be, 8 laminated, 3-hole punched cards. Price: \$29 US. Requested from publisher.

#### PREVIOUSLY LISTED BOOKS FROM NOVEMBER 1999

- Advances in *Verticillium*: Research and Disease Management. 2000. EC Tjamos, RC Rowe, JB Heale, DR Fravel (eds.). APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121-2097, aps@scisoc.org, 376 pp. Price: \$54 US. *Requested from publisher*.
- Armillaria Root Rot: Biology and Control of Honey Fungus. 2000. RT Fox (ed). Intercept Limited, PO Box 716, Andover Hants, SP10 1YG, UK, intercept@andover.co.uk, or Lavoisier Publishing Inc., c/o Springer Verlag Customer Service, PO Box 2485, Secaucus, NJ 07096, orders@springer-ny.com, 240 pp. Price: 47.50GBP and \$88US. Book in review.
- Colored Illustrations of the Ganodermataceae and Other Fungi.
  1997. W Xingliang and Z Mu (eds). 350 pp. Price: \$67 US (surface). Mail order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing 100001, P.R. China. Fax order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: <a href="mailto:hceis@public3.bta.net.cn">hceis@public3.bta.net.cn</a> or <a href="mailto:hceis@mx.cei.gov.cn">hceis@mx.cei.gov.cn</a>. Payment: check, bank transfer, or international money order on receipt of book. Book requested from publisher.
- Colored Illustrations of Macrofungi (Mushrooms) of China. (Chinese edition with Latin names). 1998. H Nian Lai (ed). 336 pp. Price: \$110US (surface), \$130 US (airmail). Mail order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing 100001, P.R. China. Fax order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: hceis@public3.bta.net.cn or hceis@mx.cei.gov.cn. Payment: check, bank transfer or international money order on receipt of book. Book requested from publisher.
- Current Advances in Mycorrhizae Research. 2000. GK Podilla and DD Douds, Jr (eds). APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121. 214 pp. aps@sisoc.org. Price: \$38. Book requested from publisher.
- The Deuteromycetes: Mitosporic Fungi Classification and Generic Key. 2000. E Kiffer and M Morlet. Science Publishers Inc. PO Box 699, Enfield, NH 03748. The book is a translation of: Les Deuteromycetes

- Classification et Cles d'Identification Generique. 1997. Text updated by the authors for the English edition in 1999. 273 pp. Price: \$85 US. *Review needed*.
- Ectomycorrhizal Fungi: Key Genera in Profile. 1999. JWG Cairney and SM Chambers (eds.), Springer Verlag Customer Services, PO Box 2485, Secaucus, NJ 07096. 370 pp. *Review in progress*.
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- Flora Agaricina Neerlandica: Volume 4. Strophariaceae, Tricholomataceae. 2000. C Bas, THW Kuyper, NE Noordeloos, and EC Vellinga (eds.). AA Balkema Uitgevers B.V., Postbus 1867, NL-3000 BR Rotterdam, Nederlands, <a href="mailto:sales@balkema.nl">sales@balkema.nl</a>, 191 pp. Price: Hfl 2.2. Review in progress.
- Forest Mushrooms of China (Chinese edition with Latin names). 1997. LP Shao and CT Xiang (eds). 652 pp. Price: \$127 US (surface), \$145 US (airmail). Mail order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing 100001, P.R. China. Fax order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: <a href="mailto:hceis@public3.bta.net.cn">hceis@public3.bta.net.cn</a> or <a href="mailto:hceis@mx.cei.gov.cn">hceis@mx.cei.gov.cn</a>. Payment: check, bank transfer, or international money order on receipt of book. Book requested from <a href="mailto:publisher">publisher</a>.
- From Ethnomycology to Fungal Biotechnology: Exploiting Fungi from Natural Resources for Novel Products. 1999. J Singh and KR Aneja (eds). Kluwer Academic/Plenum Publishers, 233 Spring Street, New York NY. 292 pp. Review needed.
- The Fungal Colony. 1999. NAR Gow, GD Robson and GM Gadd (eds). Cambridge University Press, The Edinburgh Building, Cambridge, UK, CB2 2RU. 332 pp. Price: Hardback \$105 US. *Reviewed in Inoculum 51*(5): 42.
- Gasteromycetes, I. Lycoperdales, Nidulariales, Phallales,
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- (Nagele u. Obermiller), Johannesstr. 3A, D-70176, Stuttgart, Germany, *OR* Balogh Scientific Books, 1911 North Duncan Road, Champaign, IL 61821 USA. 272 pp. Price: 140 DM. *Book requested from publisher*.
- Genera of Bionnectriaceae, Hypocreaceae and Nectriaceae (Hypocreales, Ascomycetes) (Studies in Mycology No 42). 1999. AY Rossman, GJ Samuels, CT Rogerson, R Lowen. Centraalbureau voor Schimmelcultures, Baarn/Delft, The Netherlands. 248 pp. Price: Hfl 95. *Review in Inoculum 51(3):* 75.
- Hemp Diseases and Pests: Management and Biological Control. 2000. JM McPartland, RC Clarke, DP Watson. CABI Publishing: Wallingford, Oxon, OX10 8DE, UK. 251 pp. Price: Hardback \$90 US. Review in this issue.
- Icones of Medicinal Fungi from China. 1987, English Edition, Y Jianzhe (ed.), 611 pp. Price: \$122 US (surface) \$148 US (airmail). Mail order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing 100001, P.R. China. Fax order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: <a href="https://doi.org/10.1001/journal.com/hceis@public3.bta.net.cn">hceis@public3.bta.net.cn</a> or <a href="https://doi.org/10.1001/journal.com/hceis@mx.cei.gov.cn">hceis@mx.cei.gov.cn</a>. Payment: check, bank transfer, or international money order on receipt of book. Book requested from publisher.
- Illustrated Dictionary of Mycology. 2000. M Ulloa and RT Hanlin, APS Press, 3340 Pilot Knob Road, St. Paul, MN 55121-2097, aps@scisoc.org, 448 pp. Price: \$99 US. Book requested from publisher.
- Illustrated Genera of Trichomyces: Fungal Symbionts of Insects and Other Arthropods. 2000. JK Misra and RW Lichtwardt. Science Publishers, Inc., PO Box 699, Enfield, NH 03748, info@scipub.net. 155 pp. Price: \$30 US. Review in progress.
- Laboulbeniales, I. Laboulbenia. 1998. S Santamaria. Vol. 4. Flora Mycologica Iberica, J Cramer. Distributor: E. Schweizertbartüsche Verlagsbuchhandlung (Nagele u. Obermiller), Johannesstr.3A, D-70176, Stuttgart, Germany, or Balogh Scientific Books, 1911 North Duncan Road, Champaign, IL 61821. 187 pp. Price: 120 DM. Book requested from publisher.

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- Les Champignons Forestiers, Recolte, Commercialisation et Conservation de la Resource (Conference proceedings, articles in French and English). 2000. JA Fortin and Y Piche (eds.), CRBF, Universite Laval, Quebec, Canada, G1K 7P4. 119 pp. Review needed.
- Microbial Endophytes. 2000. CW Bacon, JF White, Jr (eds). Marcel Dekker, Inc, New York. 487 pp. Review needed.
- Microbial Signalling and Communication. 1999. R England, G Hobbs, N Bainton, D McL. Roberts (eds). Cambridge University Press, 40 West 20 St, New York, NY 10011-4211. 365 pp. Price: \$115 US. Reviewed in Inoculum 51(6): 18-19.
- Molecules, Morphology and Classification: Towards Monophyletic Genera in The Ascomycetes. Studies in Mycology 45. 2000.
   KA Seifert, W Gams, P W Crous, GJ Samuels.
   Centraalbureau voor Schimmelcultures: Baam/ Delft, The Netherlands. 230 pp. Price: 100
   HLG. Review needed.
- Molecular Fungal Biology. 1999. RP Oliver and M Schweizer (eds). Cambridge University Press, The Edinburgh Building, Cambridge CB2 2RU, UK. 377 pp. *Review needed*.
- A Monograph of the Genus *Pezicula* and its Anamorphs. 1999. GJ Verkley. (Studies in Mycology 44.) Centraalbureau voor Schimmelcultures, Baarn/Delft, The Netherlands. 180 pp. Price: Hfl.85. *Reviewed Inoculum* 51(5): 40.
- Mycotoxin Protocols. Methods in Molecular Biology Vol. 157. 2000. MW Truckess, AE Pohland (eds). Humana Press Inc: 999 Riverview Drive, Suite 208, Totowa, NJ 07512 USA. 244 pp. Review needed.
- Myxomycetes: A Handbook of Slime Molds, paperback edition, 2000. SS Stephenson, H Stempen. Timber Press, Inc, 133

- SW Second Avenue, Suite 450, Portland OR 97204, <u>mail@timberpress.com</u>, 183 pp. Price: \$19.95 US. *Review in progress*.
- North American Boletes: A Color Guide to the Fleshy Pored Mushrooms. 2000. AE Bessette, WC Roody, AR Bessette. Syracuse University Press, 621 Skytop Road, Suite 110, Syracuse, NY 13244-5290, twalsh01@syr.edu. 356 pp. Price: \$95 US. Review in progress.
- Science and Cultivation of Edible Fungi Vol. 1. 2000. LJLD Van Griensven (ed). AA Balkema, PO Box 1675, 3000 BR Rptterdam, Netherlands, balkema@belkema.nl, 464 pp. Price: EUR 160. Hardback. Review in progress.
- Science and Cultivation of Edible Fungi Vol. 2. 2000. LJLD Van Griensven (ed). AA Balkema, PO Box 1675, 3000 BR Rptterdam, Netherlands, balkema@belkema.nl, 497 pp. Price: EUR 160. Hardback. Review in progress.
- Septoria on Cereals: A Study of Pathosystems. 1999. JA Lucus, P Bowyer, MH Anderson (eds). CABI Publishing, 10 E 40<sup>th</sup> St, Suite 3203, New York, NY. cabinoa@cabi.org. 353 pp. Price: \$100 US. Review in progress.
- Yeasts: Characteristics and Identification. 3<sup>rd</sup> edition. 2000. JA Barnett, RW Payne, D Yarrow. Cambridge University Press, The Edinburgh Building, Cambridge CB22RU, UK. 1139 pp. Price: \$320 US Hardback. *Review needed*.

#### OF RELATED INTEREST ....

• China Biodiversity: A Country Study, English Edition. 1998. Organized by State Environmental Protection Administration, 476 pp. Price: \$78 US (surface), \$93 US (airmail). Mail order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing

- 100001, P.R. China. Fax order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: <a href="https://hceis@public3.bta.net.cn">hceis@public3.bta.net.cn</a> or <a href="https://hceis@mx.cei.gov.cn">hceis@mx.cei.gov.cn</a>. Payment: check, bank transfer or international money order on receipt of book. Book requested from publisher.
- China's National Report on Implementation of the Convention on Biological Diversity, English Edition. 1998. Published by the National Environmental Protection Agency of China 140 pp. Price: \$39 US (surface), \$45 US (airmail). Order to: Huayu Center for Environmental Information Services, PO Box 4088, Beijing 100001, P.R. China. Fax Order: +86-10-68575909; Email order: Please send order to the following two addresses, respectively: <a href="https://linearchy.org/nceis@public3.bta.net.cn">hceis@public3.bta.net.cn</a> or <a href="https://linearchy.org/nceis@public3.bta.net.cn">hceis@mx.cei.gov.cn</a>. Payment: check, bank transfer, or international money on receipt of book. Book requested from publisher.
- The Fifth Kingdom on CD-ROM with accompanying descriptions of 1,700 Pacific Northwest Mushrooms. 1999. Bryce Kendrick. Mycologue Publications, 8727 LochSide Drive, Sidney, BC. V8L 1M8 Canada. (mycolog@pacificcoast.net or bryce@mycolog.com). Pricing: Personal use \$75 CAN, Site license for teaching \$375 CAN, Use in scientific lab \$200 CAN. Review published in Inoculum 51(5): 42.
- Microbes and Man, 4<sup>th</sup> Edition. 2000. J Postgate, Cambridge University Press, The Edinburgh Building, Cambridge CB2 2RU, UK. 373 pp. Price: \$19.95 US.
- Transport of Molecules Across Microbial Membranes. 1999. JK Broome-Smith, S Baumberg, CJ Stirling, FB Ward (eds). Cambridge University Press, The Edinburgh Building, Cambridge CB22RU, UK. 1139 pp. Price: \$320 US Hardback.

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## MYCOLOGICAL CLASSIFIEDS

Read the Mycological Classifieds for announcements of courses, employment opportunities, positions wanted, and mycological goods and services offered or needed.

#### **Positions Available**

Postdoctoral Research Assistant -Fungal Molecular Genetics. Molecular analysis of mating type genes and the evolution of heterothallic and homothallic Agaricus species. Applications are invited for a postdoctoral research assistantship in the **Department of Plant** Sciences, University of Oxford. The project is funded by BBSRC for 3 years. The grant holders are Professor Lorna Casselton of the University of Oxford and Drs. Tim Elliott and Mike Challen of Horticulture Research International, Wellesbourne. The post will be advertised formally in Nature in the near future. The appointment is on the RS1A scale with a starting salary within the range of 16,775-18,731 pounds sterling. Project: Agaricus species exhibit a range of breeding behaviours. Within the A. bisporus group, to which the cultivated mush-room belongs, are found individuals that are typically heterothallic (selfsterile) as well as those that are truly homothallic (self-fertile). The cultivated mushroom itself is self-sterile but produces binucleate sexual spores that contain compatible mating types, a breeding strategy known as secondarily heterothallic. We aim to clone the mating type genes from isolates within A. bisporus and amongst other Agaricus species to study the role and function of these genes in the evolution of different breeding behaviours. In practical terms we shall use the knowledge we gain and cloned genes to attempt to modify the breeding biology of cultivated A. bisporus, which currently presents major problems for strain improvement. Applications including curriculum vitae, a

list of principal publications and the names and contact details of two referees should be sent to the Administrator, Department of Plant Sciences, South Parks Road, Oxford OX1 3RB, clearly quoting ref. No. PRA/32. Closing date: 24th January 2001. Informal enquiries may be made to: Professor Lorna A.

Casselton FRS, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford, OX13RB, UKTel: +44(0) 1865 275 109; e-mail: lorna.casselton@plants.ox.ac.uk; Drs. Tim Elliott and Mike Challen, HRI Wellesbourne, Warwick, CV359EF, UK, Tel. +44(0) 1789470382; e-mail: tim.elliott@hri.ac.uk and mike.challen@hri.ac.uk.

#### Microbiologist, Mycologist,

Aerobiologist. Bioaerosol and microbial analysis of samples of fungi and bacteria. Responsible for day to day analysis of culturable and non-culturable surface and air samples. Advanced degree in biology, botany or microbiology with 2-3 years experience doing fungal and/or bacterial analysis in a lab environment. Position is in the San Francisco Bay Area. F/T with benefits. Send resumes to lscott@emlab.com or fax to 650.997.7825. Web site: www.emlab.com. Contact person: Lana Scott, Human Resources EML, Inc., 1800 Sullivan Avenue, Ste. 209, Daly City, CA 94015.

#### The USDA Forest Service, Pacific Northwest Research Station

(www.fs.fed.us/pnw), anticipates filling a permanent, full-time Program Manager **position** in the near future, with a starting salary ranging from \$70,457 to \$82,876. Responsibilities include managing seven research teams in Oregon, Washington, and Alaska. The teams are studying ecosystems and ecosystem processes relevant to current and emerging issues significant to society. The selected candidate will be stationed at the Pacific Northwest Research Station laboratory on the campus of Oregon State University in Corvallis, Oregon. For additional information, contact Robert Szaro (rszaro@fs.fed.us); or write to USDA Forest Service, Pacific Northwest Research Station, Attention: Robert Szaro, P.O. Box 3890, Portland, Oregon 97208-3890, or call 503.808.2115.

#### **Posting Position Openings**

For a limited time, employers can post their open positions on <a href="http://">http:// www.BiologyJobs.com>BiologyJobs.com absolutely free! When conducting your employment search in the Life Sciences, remember to start with BiologyJobs.com. Created as a targeted resource for job seekers and employers in the Life Sciences, BiologyJobs.com allows job seekers who register to use online tools to create a resume, post an existing resume, search job openings in the Life Sciences, create matching agents, and receive e-mail notifications relating to opportunities in the Life Sciences. Visit < http:// www.BiologyJobs.com>BiologyJobs.com and become a Member today!

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Identification and contamination control for indoor air quality including home and building mold test kits, food technology, spawn technology, plant diseases. ASTM & Mil-Spec testing for aerospace, controlled environments and environmental engineering. 10% discount for regular and sustaining MSA members. Email (microbe@pioneer.net); Voice mail 541.929.5984; Surfacemail Abbey Lane Laboratory LLC, POBox 1665, Philomath, OR 97370 USA. For more information see www.pioneer.net/~microbe/abbeylab.html. -- Steven E. Carpenter

#### **Fungal Searches**

MycoSearch.com-Your Guide To Fungi.at < <a href="http://www.mycosearch.com">http://www.mycosearch.com</a>>. Mycosearch attempts to provide a simple an organized approach to locating mycological information (for the professional and lay-person alike). If you have any questions, please direct them to Steven Doggett

<doggett@mycosearch.com>.

## MYCOLOGICAL CLASSIFIEDS concluded

#### **Assistance Requested**

We have purchased a copy of PAUP but are have a difficult time learning how to use the program. We would greatly appreciate assistance from anyone willing to help. If you can be of assistance, please contact **Don Ruch**. Phone: 765-285-8829; FAX: 765-285-8804; e-mail: <druch@gw.bsu.edu>.

#### Free Books for MSA Graduate Students

Diane Te Strake, Professor of Biology of the University of South Florida, has the following books that she is willing to give away for postage to MSA graduate students. If interested, please contact her at the following: Phone 813-974-9582; Fax 812-974-5911; e-mail <testrake@chumal.cas.usf.edu>; or surface mail at Diane Te Strake, Professor of Biology, Associate Dean Research and Operations, College of Arts and Sciences, University of South Florida, Tampa FL 33620-5550.

The List Includes:

**North American Species of** *Gymnopilus* by L.R. Hesler (1969).

A Contribution toward a monograph of North American Species of *Suillus* by A.H. Smith and H.D. Thiers (1964).

**The Genus** *Clavulinopsis* in **N.A.** by R.H. Petersen (1968).

The Gilled Mushrooms of Michigan and the Great Lakes Region by C.H. Kauffman (Dover).

**Boleti of the U.S.** by C.H. Peck (facsimile, 1969).

An Index of the Common Fungi of N.A. (Synonymy and Common Names) by O.K. Miller, Jr. and D.F. Farr (1975).

**Polyporaceae of N.A. The Genus** *Fomes.* by J.L. Lowe (1957).

North American *Russulas* of Subsection Foetentinae. by R.L. Shaffer (1972).

**The Stipitate Hydnums of Nova Scotia.** by K.A. Harrison (1961).

**Tuberales of N.A.** by H.M. Gilkey (1939). **Keysto Genera of Higher Fungi.** (2thed.) by R.L. Shaffer (1968).

**Polyporaceae of N.A.. The Genus** *Poria.* (1966).

**The Boleti of N.C.** by W.C. Coker and A.H. Beers (Dover).

**The Field Book of Common Mushrooms** by W.S. Thomas, M.D. (3rd ed.) (1948).

A Guide to Mushrooms and Toadstools by M. Lange & F.B. Hora (4th Printing, 1967).

**The N.A. Species of** *Psathyrella* by A.H. Smith (1972).

**The** *Boletes* **of Michigan** by A.H. Smith and H.D. Thiers (1971).

Mushrooms of Eastern Canada and the U.S. by Rene Pomerleau (1951).

## **MYCOLOGY ONLINE**

#### INTERACTIVE CATALOGUE OF AUSTRALIAN FUNGI

http://www.rbgmelb.org.au/fungi/

The catalogue covers approximately 3200 accepted, synonymous and misapplied names in Agaricales, Boletales, Cantharellales, Gauteriales, Hymenogastrales, Melanogastrales, Phallales p.p, Podaxales, Russulales, Aphyllophorales p.p., and taxa associated with Eucalyptus outside of Australia. Many of you will find this site interesting. *[Gary Samuels]* 

## **MYCOLOGY ON-LINE DIRECTORY**

Below is an alphabetical list of websites featured in Inoculum during the past twelve months. Those wishing to add sites to this directory or to edit addresses should Email <druch@gw.bsu.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 – NEW CLASSIFICATION (51-5)

http://194.131.255.3/cabipages/Names/ FundicNew.asp

ASOCIACION LATINOAMERICANA DE MICOLOGIA (51-5)

http://www.ecologia.edu.mx/alm/

 $Bibliography\ of\ Systematic\ Mycology\ (51-6)\\ \textbf{http://194.131.255.3/cabipages/BSM/bsm.htm}$ 

CABI Nomenclature Database (51-2) http://194.131.255.3/cabipages/ CARVER FUNGAL COLLECTIONS (51-2)

http://www.nybg.org/bsci/hcol/fung/ Carver.html

CORTBASE (51-3)

http://www.systbot.gu.se/database/cortbase/ cortbase.html

DISCOVER LIFE IN AMERICA (SMOKIES ATBI) (50-5) http://www.discoverlife.org

Friends of the Farlow (51-4)  $\,$ 

http://www.herbaria.harvard.edu/fof/ friends.html Fungi of the Lindsay-Parsons Biodiversity Preserve (50-6)

http://ccfb.cornell.edu

GENEALOGY OF NORTH AMERICAN MYCOLOGISTS (51-1)

http://lsb380.plbio.lsu.edu/Genealogy/

GOOGLE — NIFTIEST GENERAL SEARCH ENGINE (51-6)

www.google.com

ICOM3 (51-2)

http://www.waite.adelaide.edu.au/ Soil\_Water/3icom.html

## MYCOLOGY ON-LINE concluded

IMC7 (51-3)

http://lsb380.plbio.lsu.edu/ima/index.htm INOCULUM (51-6)

> http://www.erin.utoronto.ca/~w3msa/ inoc2-00.htm

\* Interactive Catalogue of Australian Fungi (52-1)

http://www.rbgmelb.org.au/fungi/ MICHIGAN FUNGUS COLLECTIONS (51-2)

http://www.herb.lsa.umich.edu/index.htm

MSA BULLETIN BOARD (51-5)

http://msafungi.org/bulletinboard/

MycoInfo, "the world's first mycological E-JOURNAL" (51-1)

http://www.mycoinfo.com/

MYCOSEARCH WEB DIRECTORY/SEARCH ENGINE (51-5)

http://www.mycosearch.com

**MYCOTAXON** (51-4)

http://www.mycotaxon.com

MUSHROOM WORLD [NEW KOREAN/ENGLISH SITE IN 2001] (51-6)

www.mushworld.com

NAMA POISON CASE REGISTRY (51-4) http://www.sph.umich.edu/~kwcee/mpcr

NOMENCLATURE: IAPT COMMITTEE FOR FUNGI (51-1)

http://www.cbs.knaw.nl

NORTHWEST LICHENOLOGISTS (NWL) (51-4) http://www.proaxis.com/~mccune/ nwl.htm

NYBG Fungus Herbarium (51-2) http://www.nybg.org/bsci/herb/ newfungusherb.html

RIAM — REVISTA IBEROAMERICANA DE MICOLOGIA (SUBSCRIPTION) (51-2)

> http://www.reviberoammicol.com/pdf/ current\_subscribers\_only.asp

SCIENCEJOBS.COM (51-4)

http://www.sciencejobs.com

University of Tennessee Mycology Group (50-5)

http://fp.bio.utk.edu/mycology/

University of Alberta Microfungus COLLECTION AND HERBARIUM (50-6)

http://www.devonian.ualberta.ca/uamh/

WEB MSA (51-6)

http://msafungi.org

## CALENDAR OF EVENTS

Event dates and descriptions precede event locations (italic boldface), contacts (plain font), and Email/Websites (bold face, no brackets). Those wishing to list upcoming mycological courses, workshops, conventions, symposia, and forays in the Calendar should submit material formatted as shown below and include complete postal/electronic addresses.

2001 (March 15). Abstract DEADLINE: MSA 2001.

DETAILS: This issue Inoculum 52(1): 5. http://www.erin.utoronto.ca/~janderso/msa/

2001 (March 15). **DEADLINES:** AH & HV Smith Research Award and Martin-Baker

Endowment Award applications. DETAILS: This issue Inoculum 52(1): 10-11.

Joseph Ammerati, Jr. (Smith)

cort@u.washington.edu Arthur Welden (Martin-Baker)

awelden@mailhost.tcs.tulane.edu

2001 (March 31- April 1). Mid-Atlantic States Mycology Conference (MASMC).

DETAILS: This issue Inoculum 52(1): 12.

Athens, GEORGIA

Celeste Leander

University of Georgia

celeste@dogwood.botany.uga.edu http://www.botany.uga.edu/~celeste/ masmc2001.htm

2001 (April 1). DEADLINES: MSA Distinguished Mycologist, MSA Fellows, Alexopoulos and

Weston Award Nominating Materials. DETAILS: This issue Inoculum 52(1): 7-8.

Dr. Ian K. Ross, Chair MSA Distinctions

ross@lifesci.ucsb.edu

2001 (April 1). DEADLINE: MSA Mentor Student Travel Award Applications. DETAILS: This issue Inoculum 52(1): 11.

> Dr. Jim Clark jdclar0@pop.uky.edu

2001 (April 2). DEADLINE: MSA Graduate Fellowship applications.

DETAILS: This issue Inoculum 52(1): 9. Dr. Dr. Lauraine Hawkins, Chair

> MSA Awards Committee lkh1@psu.edu

2001 (April 22-27). BMS International

Symposium "Bioactive Fungal Metabolites: Impact and Exploitation"

DETAILS: Inoculum 51(3,6)

Swansea, WALES

Dr Tariq M Butt

School of Biological Sciences University of Wales Swansea

Singleton Park, Swansea, SA2 8PP, UK

+44.0.1792.295374 FAX +44.0.1792.295447

T.Butt@swansea.ac.uk

2001 (May 15-June 30). Online Symposium in Instructional Technology

DETAILS: Inoculum 51(4)

Dr Terry Stewart (Massey University),

Webmaster

http://www.ispp-itsymposium.org.nz/

2001 (May 16-19). 3rd Mexican Mushroom Conference and Fugni-Expo.

DETAILS: This issue Inoculum 52(1): 12.

Puerto Vallarta, MEXICO Francisco Fernández Michel Chairman 3rd MMC

fungitec2000@yahoo.com.mx

fungiexpo@hotmail.com.

2001 (July 3-6). 2nd International Workshop on Edible Mycorrhizal Mushrooms. Christchurch, NEW ZEALAND

www.crop.cri.nz/whats\_on/mushroom\_conf

2001 (July 7-12). 8th International Marine & Freshwater Mycology Symposium.

Hurghada, EGYPT

Youssuf Gherbawy, University of Agricultural Sciences

Institute of Applied Microbiology Muthgasse 18/hause B A-1190 Vienna, Austria yhassan@mailcity.com

2001 (July 8-13). 3rd International Congress on Mycorrhizae (ICOM 3). Adelaide, AUSTRALIA

Prof. Sally Smith, Dept. Soil & Water Waite Campus, University of Adelaide PMB 1, Glen Osmond, South Australia 5064

sally.smith@adelaide.edu.au http://www.waite.adelaide.edu.an/ Soil\_Science/3icom.html

2001 (September 12-14). Perspectives of medicinal mushrooms in health care and nutrition in the 21st century.

DETAILS: Inoculum 52(1): 13

Kiev, UKRAINE

Dr Elvira F. Solomko

Solomko@mail.valtek.kiev.ua

Contact: Dr AW Chen

alicewchen@altavista.com, 716-381-0804 www.icmm.kiev.ua

## inoculum

# The Newsletter of the Mycological Society of America

Supplement to Mycologia Volume 52, No. 1 February 2001

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Council of the Mycological Society of America.

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