



Mycena News

Mycological Society of San Francisco

November, 1998, vol 48:11

MSSF Fungus Fair December 5-6

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President: Mark Thomsen	510.540.1288
Vice Pres: Terri Beauséjour	510.278.5998
Secretary: Anna Grajeda	415.564.4811
Treasurer: Zöe-Amy Caldwell	510.569.1554

Select Committees:

Forays: Henry Shaw	925.943.3237
Book Sales: Chris Thayer	510.283.4858
Membership: Wade Leschyn	650.591.6616

Membership and Subscription Information

To join the MSSF and receive this newsletter, send a \$20 check, payable to MSSF (\$12 for seniors 65 and over and full time students), to MSSF, c/o Wade Leschyn, 1609 Valley View Ave, Belmont CA 94002. Please include some contact information such as home and/or work phone numbers and email addresses. New and renewal memberships will be current through December of 1998. To change your mailing address, please notify Wade. MSSF members may also join or renew membership in the North American Mycological Association at a reduced rate by including with their MSSF check a separate check for \$17 payable to NAMA. Send it to Wade at the same address. For further information email Wade at leschyn@rahul.net or call at 650.591.6616.

Mycena News is the newsletter of the Mycological Society of San Francisco and is published monthly from September through May. You can send newsletter submissions by the 15th of each month to Mycena News, 4148 Briarwood Way, Palo Alto, CA 94306, phone 650.813.9149. Or, most preferably, you can email them to mycena-news@mpath.com.

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The MSSF Fungus Fair is one of the society's biggest annual events. It intrigues and informs the public about the role of fungi in the scientific, ecological, and culinary realms. We have ambitious plans for exhibits of all sorts, and the fair is sure to be an exciting event for all participants. Invite your friends to this educational, fun, and food-filled event.

Location:

Herbst International Exhibition Hall
385 Moraga Drive
The Presidio, San Francisco

Dates and Times:

Saturday and Sunday,
December 5th and 6th, 11a.m.-5p.m.

Admission:

\$6 general/\$3 for students, seniors.

Speakers:

Paul Stamets on medicinal mushrooms and on easy ways to grow gourmet mushrooms. Other speakers to be determined.

Fair Preparations:

Volunteers are needed to help with the fair. All volunteers are guaranteed fun, camaraderie, food, and free admission to the fair. See below for some volunteering opportunities.

We are also seeking additional speakers. If you would be interested in speaking on a topic of interest to the general public, or can recommend someone (local or non-local), please contact Mark Thomsen at 510.540.1288

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Membership Renewals Due

The MSSF membership dues year is from January to December. New members joining this fall (September through now) are automatically extended through 1999, dues paid last winter or spring expire at the end of 1998. Your dues expiration date is printed on your Mycena News mailing label. If your dues are expiring this December, please send your renewal dues in now. Dues are \$20 for adults and families, and \$12 for seniors (65 and over) and full time students. Checks should be made out to MSSF.

Some MSSF members also choose to join NAMA. The MSSF pays NAMA a club dues based on our total membership, making the MSSF a NAMA affiliated club. In turn NAMA offers MSSF members a 15% discount for joining NAMA. Regular NAMA dues are \$20, but are \$17 when included with your MSSF dues. NAMA dues sent without an MSSF renewal or current dues status for 1999, will be returned. A separate check is required, made out to NAMA.

Mail to: MSSF c/o Wade Leschyn, 1609 Valley View Avenue, Belmont, CA 94002. Your canceled check is your receipt.

Foray Leaders Needed!

The Society needs volunteers to coordinate and lead the Sunday Lands End walks this year. See the article in last month's Mycena News for details. We also need volunteers to lead forays on Friday, Dec. 4th to collect specimens for the annual San Francisco Fun-

gus Fair. A listing of suggested foray locations is given in this month's Calendar section. Feel free, however, to suggest your own favored locality. If you would like to volunteer, contact Henry Shaw at 925.943.3237 or e-mail him at shaw4@llnl.gov.

President's Greeting

This will be my last plea for fair volunteers. I promise. We still need the following help in leadership: a **food coordinator** to manage the food that we sell at the fair, a **site logistics person** to deal with the park service and with getting keys for the site and to open and close the building and a **publicity person** to send out press releases to the local media and to follow up with phone calls.

The next fair meeting is on Tuesday, November 3rd at 7:00 pm at the child development center in the Presidio. If you need more details please call me at 510.540.1288. The rest of the fair is starting to come together. Paul Stamets will be giving presentations on medicinal mushrooms and on quick and easy ways to grow gourmet mushrooms. The poster will be ready in a couple of weeks and in Novem-

ber we'll be having a poster drive.

In other news make sure not to miss the Salt Point foray and the Mendocino Woodlands foray. Check the calendar for more details on both. The bit of rain we had in late October should mean that the boletes will be out in Salt Point.

I'd like to send a special "thank you" to Henry Shaw for all of the work that he does in planning the forays. They are consistently well organized and numerous, and he does virtually all of the work behind the scenes. Though it isn't the most visible position in the club, it is one of the most important and one that he does well. Thanks and I'll see you in Salt Point.

- Mark Thomsen

Fungus Fair, continued from page 1

1998 Fungus Fair Planning Committee Meetings:

All Fair Committee members other interested parties should meet at the Presidio Child Development Center (located at 387 Moraga Drive at Montgomery, near the main post of the Presidio, San Francisco) for pre-fair planning meetings. Volunteers are welcome too. The upcoming planning meets are at 7p.m. on Tuesday, November 3, 1998, and Tuesday, December 1, 1998.

1998 Fungus Fair Schedule:

Friday Dec. 4,
10 a.m. - 10 p.m. Setup & Pre-Fair Forays
Saturday Dec. 5,
8 a.m. - 11 a.m. Setup & Forays
11 a.m. - 5 p.m. The Fair
5 p.m. - 7 p.m. Cleanup/Prep
Sunday Dec. 6,
8 a.m. - 11 a.m. Setup & Forays
11 a.m. - 5 p.m. The Fair
5 p.m. - 7 p.m. Cleanup

Volunteering opportunities:

Coordinating. A food coordinator, a site logistics person, and a publicity person are all needed. If you have talents in any of these areas, please contact Mark Thomsen at 510.540.1288.

Foray leading. We need volunteers to lead forays on Friday, Dec. 4th to collect specimens for the annual San Francisco Fungus Fair. For details, see the call for Foray Leaders elsewhere in this newsletter issue.

Mushroom identification, admittance, cultivation, and general. Volunteers are also needed by various other Fair groups. Expertise with mushrooms is not required; all volunteers are welcome. Contact Lisa Bauer at 415.695.8889 if you have any interest in volunteering.

Wood/duff contributions needed:

We also need various kinds of duff--conifer, oak woodland, redwood, etc.--for species and habitat displays. If you can contribute any of this, please bring to Terri Beauséjour at the next general meeting, fair planning meeting, or to the fair itself.

Scholarship Deadline Approaching

The MSSF offers scholarships each year in honor of Esther Colton Whited and Dr. Harry Thiers. The requirements are as follows:

- 1) Full time attendance at a local university/college with a major in mycology.
- 2) Two letters of recommendation one of which must be from a professional mycologist.
- 3) A brief statement describing the applicant's research project.
- 4) An agreement to present the results of the research project at a MSSF general membership meeting.

Please Note: The committee favors graduate students working with the genera common to this region. Send your material to Robert Mackler, 157 Mesa Court, Hercules, CA 94547.

The deadline is December 20, 1998.

You're Invited!

Culinary Group Dinners

The MSSF Culinary Group welcomes you to special dinners on first Monday of every month. Just \$12 for each dinner. The next dinner is November 2 and features Muscovy Duck. Bringing of mushroom appetizers is encouraged. For reservations, contact George Repinec at 415.731.5115. Questions, concerns or ideas: contact Lucie Paulazzo at 415.584.0852. Also, get ready for our big Christmas Dinner! Date: pending.

A Misidentification Leads to a Dangerous Dinner

On October 10, 1998, in Tuolumne County at an elevation of approximately 5,000 feet, I found a large fruiting of yellow capped mushrooms growing on a pine log.

The taste and odor were pleasant. Spore prints were slow to develop, but they appeared to be light brown. I identified the mushrooms as *Lentinus lepideus*, so I cooked and ate a generous serving between 5 p.m. and 6 p.m..

At 10:30 p.m., I began to feel vague discomfort and feared that I was getting the flu. By 11:00 p.m., I began to vomit repeatedly and realized that the mushrooms were at fault. Diarrhea ensued at 2:00 a.m. and I gave up trying to sleep. I remember experiencing some bad dreams, but I think I was probably hallucinating. The symptoms receded by 5:00 a.m.

Larry Stickney thinks I ate a poisonous variety of *Pholiota*. He said other experienced mycologists have made the same mistake, which makes me feel a little less stupid. Thank you, Larry, and I hope other myco-seekers can evade this unwholesome experience.

-- *Frank D. Hammer*

Seeking posters warning of poisonous mushrooms? If so, contact Bill Freedman at 650.344.7774

Don't Forget: Upcoming MSSF Forays!

If you would like to attend the Mendocino Woodlands Foray, Nov 13-15, and you haven't yet reserved your spot, better do so soon. The cabins are going quickly and the Foray is almost full. Contact Henry Shaw at 925.943.3237 or by email at shaw4@llnl.gov to make your reservation as soon as possible.

Same goes for the Thanksgiving Weekend Foray with David Arora, Nov 27-29. This very popular MSSF event is also selling out quickly. Contact Larry Stickney soon to reserve your spot for the Thanksgiving foray. Larry can be reached at 510.465.7963, or by email fungilarry@aol.com.

Refer to last months issue of the Mycena News for full details about both of these forays.

Study Group Survey

The Study Group needs your input. If you haven't already done so, please mail in your survey from last month's newsletter so that the Study Group can organize its activities to serve your interests.

OFFICERS OF THE MYCOLOGICAL SOCIETY OF SAN FRANCISCO (MSSF) 1998 - 1999

Officers

President:	Mark Thomsen	510.540.1288
Vice President:	Terri Beausejour	510.278.5998
Secretary:	Anna Grajeda	415.564.4811
Treasurer:	Zöe Ann Amey-Caldwell	510.569.1554
Concillors:	Len Coleman	415.564.3082
	Shawn Johnson	510.235.9654
	Thomas Chester	415.665.7437
	Bennie Cottone	415.731.8798

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Past President, 1997-99,	Norm Andresen	510.278.8998
1997-99,	Len Coleman	415.564.3082
1997-99,	Shawn Johnson	510.235.9654

Committee Chairs

Archives	Emmy Lou Miller	650.493.7589
Book Sales	Chris Thayer	510.283.4858
Collecting Policy	Mark Norton	415.668.5237
Culinary Group	Lucia Paulazzo	415.584.0852
Cultivation	Terri Beausejour	510.278.5998
Education	Paul Koski	415.564.6518
Forays	Henry Shaw	925.943.3237
Historian	Laurence M. Stickney	510.465.8529
Librarian	Lorrie Gallagher	415.332.5961
Membership	Wade Leschyn	650.591.6616
Mushroom Fair	TBD	
Newsletter	Hilary Somers,	650.813.9149
	Yu-Shen Ng,	650.429.3876
	Jessica Koeppel	415.412.9710
Publicity	TBD	
Scholarships	Fred Stevens	650.994.1374
	Robert Mackler	510.799.6756
Species Database	Wade Leschyn	650.591.6616
T-Shirts	Lisa Bauer	415.695.8889
Toxicology	Bill Freedman	650.344.7774

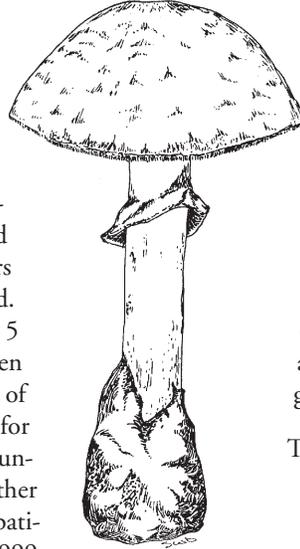
Council Adjuncts

Scientific Advisor	Dr. Dennis Desjardin	415.338.1549
	Biology Department, S.F. State University	
Webmaster	Mike Wood	510.357.7696
Video Archivist	Fred Kron	650.364.6026

Wanted: Amanita phalloides (no joke!)

Heather Hallen, a grad student of Gerard Adams, Assoc. Professor at Michigan State University needs Amanita phalloides for her research.

Heather has begun a project in which she is looking at the amanitin and phalloidin toxins in several lineages of Agarics. She uses high pressure liquid chromatography HPLC to analyze extractions from agarics. She is looking for several types of amanitin and phalloidin toxins and related biochemicals. Although she can purchase two amanitins from chemical companies, and a phalloidin toxin also, the complex of related chemicals in Amanita phalloides is greater in numbers and kinds of toxins than those that can be purchased. So, she particularly needs samples, dried and less than 5 years old, to use as standards for these related toxins when she compares different collections and different species of agarics. Amanita phalloides also serve as the standard for concentration in mushrooms. This species is of course unavailable to her in Michigan and nearby states. Heather also does not have a drivers license and I am off on sabbatical to South Africa, University of Pretoria until May 1999. Even a single dried cap of A. phalloides will make her research successful, but examining various collections will supply some interest-



ing information to poison centers. Heather will be examining many species of Amanita and Lepiota sensu lato. She would appreciate any western collections of species in these genera. A single basidiocarp, dried in the general way collectors dry agarics [food driers, etc.] will make a suitable contribution. The help and contributions from MSSF members will be crucial for this research and very much appreciated. I am sure we could reimburse you for mailing costs if desired. Heather's e-mail and address are below.

Please do not hesitate to contact her about collections. You can reach her by e-mail: hallenhe@pilot.msu.edu or snail mail: Heather Hallen, Department of Botany and Plant Pathology, 166 Plant Biology laboratory, Michigan State University, East Lansing, MI 48824-1312.

Thank you very much.

Sincerely,

*Gerard Adams, Assoc. Professor
Gadams@pilot.msu.edu
[same address as above, after May 1999]*

MSSF Member Launches Wild Mushroom Business

MSSF member Charmoon Richardson has recently begun a new business called Wild About Mushrooms. The new venture is dedicated to spreading the joys of wild mushrooms to the world, and bringing the joys of the world's mushrooms to you. Charmoon, who lives in Sonoma county, is also a longtime member of SOMA, where he currently serves as the Foray Coordinator, writes for the SOMA News, and is the organizer of the annual SOMA Winter Mushroom Camp. David Campbell, well known MSSF member, is working in partnership with Wild About Mushrooms on weekend mushroom forays & special events.

Wild About Mushrooms has recently released a special brochure detailing the various events and services that are being offered, including forays, overnight camps, personal land tours, ID & cooking classes, group presentations, and more. An events schedule for the upcoming season is also included with the brochure. If you would like to receive a brochure & schedule in the mail, please contact Charmoon with your mailing address at any of the numbers noted below. The brochure text & schedule may also be viewed on the Wild About Mushrooms website, but the groovy mushroom graphics that are on the brochure are not currently viewable in cyberspace.

To contact Wild About Mushrooms:

Phone: 707-887-1888
Mail: P.O. Box 1088, Forestville CA 95436
Email: charmoon@trr.metro.net
Website: trruw21.metro.net/~charmoon/home.html

Two Forays, continued from page 7

to arrive early Thursday evening for an impromptu New Year's Eve Party. For those who have other New Year's Eve plans, we will also host a New Year's Celebration Party on Saturday night. There is a big barn with a great hardwood floor that we can use to dance and party in, so all you fun-guys and fun-gals can break out the mushroom spirit and join us for what will likely be an unforgettable weekend of mushroom hunting fun, feasting, & merriment. We will have some excellent chefs & cooks on hand, along with plenty of mycological expertise.

Oz Farm is also 'off the grid', with solar power, wood heat, comfy, picturesque cabins, all the usual civilized comforts, and great views. Fresh produce from the farm's beautiful certified organic gardens will be included in our meals.

Cost for the entire weekend (Fri. - Sun., w/ optional Thursday night) is \$150, which includes lodging, all meals, instruction, and Saturday night party. Come greet 1999 in Wild Mushroom Style!

To register for either or both of these forays, please send a deposit (or entire fee; make checks out to Wild About Mushrooms), along with your name, mailing address, telephone number, and email, if available, to Wild About Mushrooms, P.O. Box 1088, Forestville, CA 95436. The deposits are \$35 for the Mendocino foray, and \$50 for the New Year's foray. Directions and more detailed information about the camps, including a list of items to bring, will be sent out prior to the events. If you have any questions, please write to the above address, or contact Charmoon or David at the following numbers: David Campbell 707-887-1888, yogidog@earthlink.net or Charmoon Richardson 415-457-7662, charmoon@trr.metro.net



Home Cultivation Kits

Mushroom home cultivation kits are available from member Don Simoni. Information about the kits are available at the Mushroom Adventures website at www.mushroomadventures.com. Also, look for these kits at the MSSF Fair.

Says the website: our mushroom growing kits are designed to let you grow mushrooms at home. They contain all the necessary components to grow several crops of mushrooms over a 6 to 12 week period of time. The mushroom substrate has already been prepared and inoculated with the mushroom mycelium, (the fungus) at the mushroom farm. All you need to do is add water and wait for the mushrooms to grow. Usually within 3-5 weeks, after starting the mushroom kit, the first of the mushrooms are ready to be picked. You should have weeks of fun and enjoyment as you harvest one mushroom after another. Our mushroom kits are designed to be grown indoors at temperatures between 60 and 74 degrees. Included are easy to understand instructions. Mushroom yields will vary depending on the variety of the mushrooms grown, and the care and conditions the kit receives.

Kits available include, among others: portabella/Crimini (*agaricus/Bisporus*), white button (*agaricus Bisporus*), dense white (*agaricus Bitorquis*), almond (*agaricus Subrufescens*), and shaggy mane spawn (*coprinus Comatus*). Dowels of oyster, shiitake, mitake, hericium, and reishi are also available

Kits will be available through April, 1999. For more information, again, visit the Mushroom Adventures website at www.mushroomadventures.com, or contact MSSF member Don Simoni.

Mushrooms for the Holidays

Admit it, you have started thinking about Holiday Gifts. Look no further! The MSSF has a number of different mushroom-type items, perfect for gifts, and priced to move. Soft, 100% cotton sweatshirts and T-shirts with colorful antique mushroom print reproductions are available for \$16 and \$10, respectively. Tote bags and aprons with the same attractive design are available for \$12 each. Such a deal! Supplies are limited, and will only be sold at the November and December general meetings, and if available, at the fair. If you can't make any of these events, please contact Lisa Bauer for more information. These '98 NAMA foray commemorative pieces are destined to be collectors' items.

Special Mushroom Dinners in November

For the third year in a row some of the Bay Area's best chefs will be holding mushroom dinners in November. The MSSF will have mushrooms on display in the restaurants below on all of the special nights and you're encouraged to bring in fungi for identification. Also don't forget to mention that you're an MSSF member. This is a good chance to splurge a little and welcome in the beginning of the mushroom season.

Chinook restaurant in San Rafael will have mushroom dinners on **November 4th, 18th and 25th**. Chef Sunita Dutt will plan her menus based on what is being picked and what is available at the time. Sunita is formerly of Stars Restaurant and has a passion for wild mushrooms. She's been an active volunteer for the society and has done cooking demonstrations at our last two fairs and at the Marin Farmer's market. Her dishes are always a treat and she's a chef that takes particular care to highlight the flavors of each mushroom. For reservations call 415.457.0566. Chinook is at 1128 4th Street in San Rafael. Cross streets are A and B.

Frances Wilson of **Lalimes in Berkeley** will be holding a wild mushroom and pinot noir wine dinner in Berkeley on **Tuesday, November 24th**. Frances has given cooking demonstrations at the fair and is a member of the Society. The wine portion of the dinner will be a blind tasting of six pinot noirs from around the world paired with Swiss chard timables stuffed with chanterelles and pancetta, cauliflower mushrooms with Chinese long beans and ginger and roast pork stuffed with porcinis and served with a black chanterelle sauce. Dessert will be a candy cap creme brulee. Now, if your mouth isn't watering, then you probably won't need to call this number, but if it is, you can make reservations at 510.527.9838. Lalimes is located at 1329 Gilman St. in Berkeley.

Last, but certainly not least, Bradley Ogden, the well known chef and author will hold mushroom dinners on **November 10, 11 and 12** at the **Lark Creek Inn in Larkspur**. Bradley is another mushroom fan and is having a prix fixe menu with a demitasse of mushroom soup, poached cauliflower mushroom with garlic tart and sage, sherried chanterelles with monkfish and a lobster ragout with mache salad followed by a grilled cep steak and tenderloin of beef with truffle risotto cake. If you can still eat another bite dessert is a dark bitter-sweet chocolate pudding soufflé with banana rum custard anglaise. The Lark Creek Inn is located at 234 Magnolia Avenue. To make reservations call 415.924.7766.

-- Mark Thomsen

November 17 Meeting

Last month's slide show at the MSSF general meeting, presented by Darwin DeShazer, on Exotic and Unusual Fungi of California was exciting and entertaining. We hope you will join us for November's meeting. The speaker is as yet unannounced.

Calendar, continued from page 10

nary extravaganza somewhere near Mendocino. See article in this issue for details. Contact Larry Stickney (510.465.7963, fungilarry@aol.com) for reservations.

Tuesday, Dec 1: Fungus Fair Planning Meeting, Presidio Child Development Center, Presidio, San Francisco. Call Mark Thomsen at 510.540.1288 for details.

Friday, Dec. 4: Pre-Fungus-Fair Forays. We will schedule a variety of forays to collect specimens for the San Francisco Fair on Dec 5-6. If you are willing to lead a foray to one of the locations listed below (or to a different location), call Henry Shaw at 925.423.4645 (work) 925.943.3237 (home) or e-mail him at shaw4@llnl.gov. Traditional foray locations: *Huddart Park, Crystal Springs Watershed, Memorial/Sam McDonald Parks, Portola/Big Basin, Soquel Demonstration State Forest, Tomales Bay State Park, Pt. Reyes, Samuel P. Taylor State Park, Salt Point State Park, Mendocino area, your favorite (legal) collecting area.*

Saturday-Sunday, Dec. 5-6: During-Fair Forays. We will send out an intermediate to advanced collecting foray early Saturday morning to try to find species that were underrepresented or uncollected by the Friday forays. We also hope to send out a collect-

ing party from the Fair at mid-morning on Saturday. The location will likely be somewhere relatively nearby. Finally, we will conduct beginners' forays around the Presidio on both Saturday and Sunday. These forays will start at 11:45am. Additional details on the Saturday forays will be announced in a future *Mycena News*. Volunteers are needed for leading these forays. Contact Henry Shaw (925.943.3237, shaw4@llnl.gov) if you would like to help out.

Saturday-Sunday, Dec 5-6: MSSF Fungus Fair This is one of the society's biggest annual events. This year's Fair will be held at the Herbst International Exhibition Hall, Moraga Drive, Presidio, San Francisco. See inside for details and information about volunteering and participating.

Friday-Sunday, Dec. 11-13: Guided foray in Mendocino with David Campbell and Charmoon. This will be a limited enrollment foray. A fee will be charged to cover food and lodging costs. Contact Charmoon at 707.887.1888 and see the article in this issue for details.

MSSF Christmas Dinner Date and location TBD. Look for more information about this special dinner in next month's newsletter.

Attine Ants Have Been Gardening Over 50 Million Years

— Bill Freedman

Most people think that monagrultural (growing one product) planting and harvesting of food crops were introduced to the world by humans. There are many examples of insects which denies that this is so. Even one of last month's *Mycena News* articles mentioned a few classical examples of insect agriculture.

Most mushroom enthusiasts are familiar with the leaf-cutting Attine ants of the New-World tropics. These creatures bring their compostible organic matter into the nest for processing to produce high quality food for their broods, and are more sophisticated than we might think. They are the creatures who invented monoculture. Attine ants are adventurous, experimenting with the cultivation of new species of fungi; they encourage diversity in their meals by growing different varieties of fungi, occasionally side-by-side; they weed out intrusive plants and fungi; they elaborate herbicidal chemicals to ward off the invasion of their fields by controlling parasitic weed molds; they've solved their sewage problems by recycling their feces with which they fertilize their fungal crops; and they willingly share their bounty and provide seeds for other distantly related but friendly ant species (no evidence of export tariff walls have been observed).

The truth is that, over the last 50 million years, the 200 known species of Attine ants have become absolutely dependent upon the fungal food they produce. Ant farmers have evolved into insects lacking digestive enzymes. These were replaced by fungal enzymes which provide the low molecular sugars and proteins required for the ants' survival. By comparison, human agriculture originated a mere 10,000

years ago in China and the Fertile Crescent, such as in Iran.

The queens of certain Attine ant species have been observed to carry fungal masses in their mouths as they leave their family farm for a brief, but satisfying marital flight and to disperse the fungi as they enter their own new brood chambers. Spores usually germinate asexually, forming clones. Mycelia of basidiomycetes make up the greatest mass of the fungus, but some varieties of ants cultivate masses of yeast instead. The most common fungi have been grouped with predominately tropical forms of Lepiotaceae and Leucocoprini, apparently for millions of years. *Lepiota cristata* and *rubrotinctus* are examples of fleshy fungi, as are *Leuco agaricus naucina* and *hortensis*.

An article in *SCIENCE* magazine, Vol. 281, 9-25-98, pages 1974 & 2034, describes experiments carried out by three scientists: U.G. Mueller, S.A. Rehmer and T.R. Schultz. Jared Diamond, Professor of Physiology from U.C.L.A. interprets their report comparing human agricultural trends with that of the ants.

Working in forests in Panama, Puerto Rico, Brazil, Costa Rica, Trinidad and Guyana, the investigators compared the characteristics of domesticated fungus cultures from ant colonies with free-living neotropical Lepiotaceus fruiting bodies. 553 ant cultivated fungi and 309 wild mushrooms were studied. Two DNA gene regions were sampled and a chart was created showing the variations

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SOMA Winter Mushroom Camp -- January, 1999

The Sonoma County Mycological Association (SOMA) is pleased to announce the 2nd Annual Winter Wild Mushroom Weekend. The event, which took place last season on New Year's Weekend, is a benefit for SOMA. This year, the camp will be held Jan. 16 - 18, 1999 (Martin Luther King weekend), at Wellsprings, a camp in Philo, near Boonville, Mendocino county, CA. Forays, classes, evening programs, and fine fungal feasting will be presented by members of SOMA, and other local mycological luminaries. Those of you who attended last year's SOMA New Year's Camp know what a great event it was - and this year, the event is moving to another camp that is a definite upgrade from last year's facilities. The new camp, with its homey cabins, is easily accessed, and is situated near great habitat that we can hunt. There will also be forays to the Mendocino coast, and other locations.

Attendance will be limited - register early to insure a place. A \$125 fee covers all events, cabin space, and meals (except lunches). The new camp is definitely worth the price increase.

To register, please send a \$50 deposit (or entire fee), along with your name, phone numbers, mailing address, and email, if available. Make checks to SOMA and send to:

SOMA Camp
P.O. Box 1088
Forestville, CA 95436

You will receive a confirmation. Directions and further information will be sent at a later date.

For any questions, please contact Charmoon, the SOMA Camp Coordinator, at (707) 887-1888, write to the above address, or email to: <charmoo@trr.metro.net>. We hope to see you there!

Two Forays Offered by Wild About Mushrooms

WILD ABOUT MUSHROOMS, INC., MENDOCINO WEEK-END FORAY, DECEMBER 12-13

This foray will take place on the weekend of December 12/13, at a rustic but functional private farm located deep within Jackson State Forest near Mendocino. Those of you who have hunted extensively around Mendocino Woodlands may have touched on this property, but it is considerably more tucked away and remote than the Woodlands. The foray will officially begin at 10 am Saturday morning, and will end sometime Sunday afternoon. Attendees are welcome to arrive on Friday evening, if they wish. Once at the site, it should not be necessary to drive anywhere until leaving on Sunday - the farm is situated amongst thousands of acres of choice habitat, and we can just walk off in almost any direction. We will hunt on Saturday, have a feast Saturday night, and hunt more on Sunday. There is a wood-heated sauna available for use. The farm is 'off the grid' - solar & wood are the two main power sources, and you are out in the country. Please inquire for more details.

Attine Ants, continued from page 6

in genetic structure found in seven genera of fungi. The molecular evidence suggests that at least five cultivated varieties evolved independently at different times, by selection. This contradicts the linear



theory that the ants of yesterday fed on a single early form of fungus which evolved into the currently adapted varieties. Identical crops were found in some ant mounds of different ant genera and species. This is called "lateral transfer". An example of this might be the introduction of potatoes and maize or corn into Europe after finding that these were used as food by pre-Columbian native Americans.

Using their genetic techniques, the investigators were able to time recent introductions of ants and fungi to new lands and demonstrated that ants were capable of immediately adopting to new fungi for their nutritional needs.

There are many close parallels between primitive ant agriculture and how humankind grows and distributes food to its group members. If we could find sharing foodstuffs as sociably acceptable and beneficial as ants, perhaps we would have fewer animosities and fewer wars. As for agricultural techniques, it doesn't appear that we can teach the *Attines* much they don't already know. But who can predict the heights we might have reached if we had been able to experiment for 50 million years?

Cost for the weekend is \$75, which includes lodging, instruction, and meals (which will be partially potluck). Those who prefer higher levels of civilized comforts may wish to obtain their own lodging in the Mendocino - Ft. Bragg area, and join us for all the group activities. For those who stay off-site, the fee will be \$50, with all group meals included. See below for registration information.

WILD ABOUT MUSHROOMS, INC., NEW YEARS '99 WEEK-END FORAY

What a way to welcome in 1999 - hunting and celebrating with wild mushrooms! Come join with David Campbell & Charmoon Richardson at a wonderful, comfortable camp called Oz located outside of Manchester, in Mendocino county. Here we will base ourselves for three days of forays & fungal frolic. The event will officially begin at noon on Friday, January 1, 1999, but we will have the camp on Thursday night (New Year's Eve), and attendees are invited

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THE MUSHROOM SCOOP

This monthly column solicits input concerning mushroom collections of particular interest, rarity, or amazement.

E-mail me at yogidog@earthlink.net to contribute.

- David Campbell



On October the 4th, my wife Jeanne and I sallied forth into the north fungal country, into the Western and Central Cascade ranges of Oregon. By mid-September, matsutake are usually throbbing near their "Grand Central Station," Crescent Junction, or, on Hwy. 58, and that was our one day's drive goal. We reached this blue tent city at about 9 p.m., and took a little stroll through the bazaar so that I could get a pulse on the vitality of the current fruiting pattern. Most of the buying stations were inactive – there are literally dozens of them – and it was obvious to me that things were not booming. One station had some commotion going, and we wandered in there. Philip, the buyer, greeted us cordially and, without pausing from his task of tossing the mushrooms that he was grading into their appropriate wickers, informed us that it was 40-40 now, probably 50-50 by the time the night was done; if and when the price did go up, he would up his payment on transactions from earlier in the day. These numbers refer to the dollar per pound value being paid for the very best grades of the mushroom, those with an unbroken or barely torn veil intact (#1 and #2). Prices for specimens whose caps have unfurled and veils collapsed drop dramatically. Any worm tunnels, or rust stain on the gills, is a no sale. I observed that the mushrooms in their graded baskets looked a little tired, in general, and I was not surprised to overhear one picker proclaim, as he approached a make-shift barrel fire, "I'm going home."

We pulled into an unimproved camp at the end of a road not too far out of town, a place where I have forayed with modest success in years past. It was too late to do much except take a flashlight walk in the woods, pluck a few edibles – *Albatrellus flettii* fruiting in crescent clusters, a couple *Cantharellus subalbidus* buttons mooning through the tightly woven duff, and a cascading run down the length of a fallen log of the exquisite *Hericeum abietis*. OK, now I can sleep!

Come dawn, after espresso, we slipped into the dense matsutake forest, replete with hemlocks and lodgepole pines, fir, moss, and mushrooms aplenty. We had some success with the primary object of our hunt straight off: *Armillaria ponderosa* (*Tricholoma magnivelare*) occurring in ones and twos, no "nests", groups of three to ten or more, the trademark of a waxing matsutake flush. Ended up with 15 or so healthy specimens, along with ID collections of the closely related but inedible *Armillaria* (*Tricholoma*) *zelleri*, which is purported in *DA/MD* to frequently co-exist with *A. ponderosa* in typical PNW habitats.

Midday, we blasted on northwesterly through Oakridge, hung a right on road 19 heading due north, tracing up the north fork of the Willamette for the first leg of the 60 mile run to hwy. 126. Over the pass, at about the halfway point, 19 picks up and follows down the south fork of the McKenzie. This is a highly recommended gorgeous mushroom cruise zone. It is in the Western Cascades, and although these mountains mostly lack the stunning views of volca-

nic cones that the younger Easterns provide, it does offer instead a seemingly endless tract of lush, moist, inviting forest.

Stopping at numerous likely habs, we collected: *Lyophyllum decastes*, the "fried chicken mushroom" (a rather inexplicable nickname... sure, I know, it was growing in the gravel roadbed, typical *modus operandi* for this species, so maybe it was a just another "chicken" crossing the road, and someone saw it get fried in the hot sun and named it; we still don't know why, though.); *Cantharellus formosus*, the PNW's golden chanterelle; *Gomphus floccosus*, the false woolly chanterelle; *Clavariadelphus truncatus*, a charmingly marshmallowish golden mushroom which is listed as edible, though it's invariably worm riddled, and is a dead ringer mimic color-wise to the golden chanterelles; *Dentinum repandum*; *Hydnellum scrobiculatum*; *Amanita muscaria*; and an immaculate *Amanita pachycolea* specimen, on which we dined, after I had photographed the begeezus out of it, high on a ridge-top, at the end of a road with ample firewood, with full sky view, a full moon rise, and Mt. Bachelor on the distant Eastern horizon. The moon, I must say, put on a miraculous light show as it rose through the silhouette of a thin line of conifers perched on the edge of a distant ridge. A very delicious fungus, this Western Grisette; I liked it a lot. Not to be eaten based on identification by those who are not absolutely clear on critical aspects of *Amanita* morphology.

Well, enough of this dithering, let's get on towards Santiam Pass – I know a spot where the golden chanterelles proliferate like stars in a clear mountain sky.

Bog Creek offers more than that, too. We arrived in this jewel of the Cascades late Tuesday afternoon. A brief hike before dark yielded, in addition to the 'trells': *Gomphus clavatus* (pigs ear); *Cortinarius violaceus*, *Polyporus decurrens*, *Tricholomopsis rutilans* (Plums and Custard), *Russula xerampalina* (grp.), various exotic corals, and as many 'cat's as I could muster.

David Arora had expressed to me a particular interest in the 'cat' (*Catathelasma*) complex, when I told him how they prospered here. I have afforded scant attention to them here in years past, here where they fruit with bodacious fervor, but I was dedicated this trip to paying some special attention to them. *Catathelasma imperialis* and *C. ventricosa* are close relatives of the matsutake, and from a culinary viewpoint I would say that they possess the textural intensity of their superior cousin, but lack the compelling flavor components that make *A. ponderosa* so special. Instead of redhots and dirty socks, you get farina.

The distinguishing field characteristics between the two 'cats' include cap color – golden-brown in healthy youth with scabrous demarcations for *imperialis*, versus silvery gray, sometimes mottled, but

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Scoop, continued from page 8

smoother, frequently animal-gnawed cuticle exposing bright white interior flesh in the case of *ventricosa*. The odor in both has a ferocious quality, though *imperialis*' has a sharp, acrid edge to it, while the *ventricosa*'s waft is softer and sweeter. There are growth pattern variables as well: the *ventricosa* is more inclined to grouping, while the *imperialis* tends toward solitary to scattered patterns. As I told David, after the specimens spend a few days in my collection larders, it is very difficult to tell the two apart. Their colors tend toward a dingy grey-blackish brown color commonality as the desiccation process ensues once the collected specimens have been separated from their natural syntax. I do not enjoy collecting them as an edible because they are dirty by nature, being extricated from deep in the earth where their long tapered stipe terminates, and they are often visited by our pupal friends with wanton abandon. Plus, nobody knows about them; I always have to explain. They are heavy, and I am already carrying too many chanterelles.

In my conversation with David, we established that in September he had been back east at the same time I was. He was at the Northeastern foray with Bill Neill, President of the Boston Mycological Society, and they traveled right through North Conway, NH, while I was there in September. He told me that the *Cortinarius armillatus* that I had found growing in such profusion (and intermingled with *Rozites caperata*) was an edible which he had enjoyed in his younger days, while camping in those same Whites. He admitted that his fond memories of them should be tempered by the facts that he was young, camping out, and hungry.

Nonetheless, he found them to be a memorable fungal edible. My responsibility to you, my beloved readers, requires me to remind you that the *Cortinarius* genus is a group of species that includes deadly ones. Extreme caution and ID by an expert is strongly advised before consumption. Abstinence is well advised.

Hygrophorus russula made a slight showing up the shoulder of the "Bog," just a few specimens in one spot. This is a beautiful mushroom of the Waxy Cap group, bright burgundy-red to coral-pink in hue, and edible. Arora quotes a *hygrophorus* hound he knows, a fellow acutely afflicted with McIlvaine-mania, as follows: "Although it lacks the supreme succulence of *H. sordidus* [a mushroom David had found to be unpalatable, citing nuances suggestive of overcooked banana slug], it largely makes up for it in possessing a copious supply of wax, which coats the mouth and throat for hours after eating it, the way good ice cream does" (*MD* 123). We collected this mushroom in the Mendocino hills near Booneville last January at the Soma Foray, and it occurs locally. Maybe you, too, can chew a gulp someday.

So, if you really want to know, we did have our way with the chanterelles and, what's more, enjoyed the largesse of a concurrent *Boletus edulis* flush as well.

The *Boletes* grow in a rather serendipitous fashion here; I've never been able to establish a pattern of specific micro-habitat tendency or define predictable locations, as I have in our local coastal cep-supportive environs. It seems they just mosey around as they wish, and, over the course of the several years that I have made it a point to show up here (in this not-much-larger-than-a-football-field bog-zone

on a creek's alluvial bench), I have never felt I understood them, but I've certainly been glad to know them. We did find the strongest flush in proximity not only to *Amanita muscaria*, which is known to occur in the same area where *B. edulis* occurs, but to the *Spy* mushroom, *Clitopilus prunulus*, as well – their fruiting troops have a marvelous tendency to bloom in spots right next to where porcini are about to pop.

Staying legal while fulfilling one's fungal frenzy fantasy is, in Oregon's Cascade National Forest districts, actually quite feasible. A free permit is available which allows mushroom collection up to 2 gallons. Then, for \$2 a day, 5 days minimum (= \$10), you can go all the way till you realize you are being stupid doing all this stoop labor! The exception is matsutake, which they treat as a different animal. A commercial permit is \$10 per day, 5 day minimum (= \$50). It is illegal to pick a specimen under 1.5" cap diameter, or exceeding 7". Maximum width allowed for a tool of extraction, 1". No raking allowed.

I complained to the very nice ranger lady, on information which I carried from the past, that I didn't understand how they could have such a reasonable code for all other mushrooms, and yet make it illegal for anyone to pluck a matsutake unless they've plopped down their \$50. Turns out, they've just this year made an allowance on the free use/recreational permit for up to 15 specimens collected on any given day. The permits are issued for ten day increments, and the user fills in the date of usage (before emerging from the woods). So, I get a free permit to cover my pittance of matsutake, and for \$10, my wife and I permit ourselves to collect as many as we wish of all and any other mushrooms that may present themselves. A good system I think they have, well-advised, pertinent, enforced, and sensitive to the spectrum of the public's interest. So sad by comparison, I must opine, is the misguided regulatory dumbness we often see here in California.

While at the Ranger Station at McKenzie Bridge, Hwy. 126, I was pleased to see the multi-language poster of deadly amanitas on the bulletin board, the very poster which Bill Freedman developed and worked on so diligently to get produced and distributed. The MSSF kicked in significant sponsorship support, too. Good work, Bill and us. By the way, Bill reports recently spotting a pair of *Amanita phalloides* growing in sprinkler system habitat.

A veterinarian's office, on reference from the local Poison Control Center, called me concerning a fungus someone's dog had munched on and then didn't feel so hot. I couldn't get a spore print from the specimen they provided, it seemed pleurotoid to me, but the apparently terrestrial substrate that supported it threw me off. I showed it to Chris Thayer at the October meeting, and he jumped on the ID as soon as I mentioned the dirt appeared to be a potting mix, (with mulched wood). "*Hohenbuehelia petaloides*", he exclaimed. Sure enough, there it was in MD, used to be a *Pleurotus*, Arora says. Any toxicity it contained is likely the result of residual herbicide, insecticide, or fungicide components. I advised the vet that dogs should not be eating unidentified mushrooms.

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Calendar

Monday, Nov. 2: Culinary Group dinner. Featuring Muscovy Duck. Bringing of mushroom appetizers is encouraged. For reservations, contact George Repinec at 415.731.5115. Questions, concerns or ideas: contact Lucie Paulazzo at 415.584.0852.

Tuesday, Nov. 3: Fungus Fair Planning Meeting. Presidio Child Development Center, Presidio, San Francisco. Call Mark Thomsen at 510.540.1288 for details.

Wednesdays, Nov. 4, 18, and 25: Mushroom dinners at Chinook restaurant in San Rafael. See article inside for details.

Saturday-Sunday, Nov. 7-8: MSSF Salt Point Foray. David Campbell will once again lead a camping foray/food-fest at Salt Point State Park. As in previous years, there will be a gourmet pot-luck dinner on Saturday evening. Just show up at the Woodside Campground parking lot on Saturday at 10:00am. See article in the October *Mycena News* for details.

Tuesday, Wednesday and Thursday Nov. 10, 11 and 12: Mushroom dinners at the Lark Creek Inn in Larkspur. See article inside for details

Friday-Sunday, Nov. 13-15: MSSF Mendocino Woodlands Foray. Our traditional autumn cabin-camping foray, which will be held (we

hope) at the peak of the Mendocino-coast bolete season, is nearly sold out. The cost this year will be \$85/person. Call or e-mail Henry Shaw (925.943.3237, shaw4@llnl.gov) for more information, or send your reservation to him at 155 Sharene Lane #214, Walnut Creek, CA 94596. See article in the October *Mycena News* for details.

Tuesday, Nov 17: General Meeting at the Randall Junior Museum in San Francisco. Doors open at 7:00 pm for mushroom ID and Books Sales; meeting proper begins at 8:00 pm. November's presentation TBD.

Tuesday, Nov. 24: Mushroom dinner at Lalimes in Berkeley. See article inside for details.

Friday-Sunday, Nov. 27-29: Foray with David Aurora. David will once again be conducting a Thanksgiving weekend foray and culi-

calendar continued on page 6

For the most current Calendar information, call the MSSF hotline at 415.759.0495 or check the MSSF web site at:

<http://www.mssf.org>