# Speaker for November MSSF Meeting

## Why People Eat (the Wrong) Mushrooms

Marilyn Shaw will be our speaker for the November 20, 2001 MSSF general meeting. She is the primary mycology consultant for the Rocky Mountain Poison and Drug Center. She received the NAMA President's Award in 1996 and the Harry and Elsie Knighton Meritorious Service Award in 2000. In addition to her numerous articles for various mycology publications, she has contributed to published books on mushroom poisoning, and lectured extensively on the subject.



Why People Eat (the Wrong) Mushrooms

By Marilyn Shaw

One of the questions I hear most often while dealing with a mushroom poisoning is, "Why would anyone eat

that?" The emphasis falls on various words in this question, which one depends on how mycophobic the questioner is. There are probably nearly as many reasons as there are victims, among them: grazing youngsters out developing a sense of taste (interestingly enough, these gourmands seldom get sick); the family pet irresistibly drawn to certain mushrooms - no, they don't "know" which are harmless and which aren't; the teenager looking for a high, but not knowing where, exactly, to get it; folks emboldened by years of mycophagy, identification learned by tagging along after a relative in the "old country"; and then, those adventurous souls who just thought, "it looked good".

The November program will be based on cases encountered over a period of many years working as a mycology consultant to the Rocky Mountain Poison and Drug Center in Denver, CO. The center handles calls from all of Colorado, Idaho, Montana, Nevada, and Hawaii, as well as, on occasion, from just about anywhere in the country.

Inquiries have even come from Canada, Germany, and most recently two from anesthesiologists in Ukraine. I hope you'll find this subject as fascinating as I do.

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# Mycena News

Mycological Society of San Francisco

November, 2001, vol 52:11

# **Phytophthora ramorum** By David Rust

Phytophthora ramorum Confirmed in Alameda and Solano Counties

The rumor was true. Fears that *P. ramorum* can live away from the cool coastal climate where it thrives have been confirmed. An infection has been found near Crow Canyon Road above Castro Valley on private property in an area with no tanoaks, at least 20-25 miles from any previously identified infestation. Scientists estimate it may have been there for a year or two. An infected area was also confirmed in August in Solano County.

(Note: It is important to make the distinction between newly discovered sites and new infestations. *Phytophthora* probably spreads most quickly during wet, cool winters. With more eyes looking, it is being found in new locations, but has been in the Bay Area for longer than first realized.)

The East Bay Regional Park District (EBRPD) is keeping a close eye on the diseased oaks, as they are directly adjacent to Cull Canyon and Don Castro Regional Parks. Nancy Brownfield, EBRPD Integrated Pest Management Specialist, says the District is attempting educate the public and has taken the unusual step of not making firewood available to the public. Two years ago, EBRPD hired Brice McPherson, UC Berkeley grad student in the Department of Environmental Sciences, to survey the parks for signs of Sudden Oak Death. EBRPD has scheduled a mandatory workshop for its employees in late October to help them to recognize and report the disease. *Phytophthora* "could have a dramatic effect on our ecosystem and wildlife," says Brownfield.

#### MSSF Adopts Policy

The following resolution was adopted by the MSSF council at its October 9, 2001 meeting:

#### MSSF Policy Regarding Phytophthora ramorum

The presence of a new pathogen, *Phytophthora ramorum*, in Northern California will have dramatic and long-lasting effects on the ecology and diversity of mixed oak woodlands. As more is known about this disease and how it is spread, the role of the Mycological Society of San Francisco will be to educate its members and the public, and to recommend actions to minimize its impact.

We therefore ask that all users of public lands learn the signs of *Phytophthora* and methods to prevent its spread. At this time, it is highly recommended that leaves and firewood should not be removed as they carry the highest number of spores.

The most obvious actions people can take are to avoid going to areas where the disease is present, consult with local resources, respect state and county quarantines and trail closures, and use disinfectants to remove spores when leaving infected woodlands.

It is especially important that MSSF members who collect and study mushrooms for personal use take special care not to cause *P. ramonum* to be transported into unaffected areas by taking the following steps:

If you visit a woodland with *P. ramorum*, knock off any loose soil or mud while still in the area, and rinse off your boots and vehicle tires with water. Then, use one of these disinfectants:

1) The best way to kill the spores is with a couple of squirts of Lysol<sup>TM</sup> spray.

2) Take along an old washbasin and have everyone in your party step in a bath of a dilute 10% Clorox<sup>TM</sup> solution.

Our oak woodlands are under tremendous pressure from development of homes, vineyards, golf courses, and shopping centers. The steps above may have little impact on the larger issue of habitat and the range of this new pathogen, but they follow the recommended preventative steps at this time. *P. ramorum* is most likely spread by aerial dispersal in the sporangia stage.

There are many unknowns with respect to Sudden Oak Death. Scientists studying the disease frequently learn startling new facts: this *Phytophthora* is the only known species that is not spread through the soil into the root system and up into the tree. State and federal quarantine regulations in place prohibit the movement of oak firewood, leaves, wood chips, and mulch, as well as plant material from other designated hosts, out of the 10 Bay Area counties with the disease.

The California Oak Mortality Task Force is considering reversing its recommendation on using disinfectants in the field. Simply knocking off soil and mud along with a rinse of simple water may suffice.

The MSSF council will make recommendations that are reasonable and reflect current knowledge, and make adjustments in our policy as needed. The current assumption is that the primary method of dispersal to new areas is human activity, according to Kim Kiernan, project coordinator for the UC Marin Cooperative Extension. We want to be responsible about our actions in the woods, and not be vectors for the disease.

# **Culinary Corner**

#### By Al Carvajal

We had our monthly culinary meeting at the Slavonic Cultural Center (SMBS) on Tuesday October 2. We had a small but very enjoyable crowed. Peter Fazio brought in a keg of beer to start the festivities.

As usual, the collection of appetizers was marvelous and too many for my frail memory to remember. Just to list a few: tomato shoots (Debbie Viess), mushroom caps broiled with bagne calda and pesto (David Bell); mushroom and scallops (Sherri Fazio), chanterelle brochettes (Toby Garrone), wild mushroom fritatta (Cindy Valentine), mushroom ceviche (Marshall Krauss), cheese and basil tomatoes (Joyce last name unknown).

Prior to dinner we enjoyed a terrific punch made by Bill Hellums with Carol serving as the tasting assistant during the recipe searching process. Rumor is that she passed out several times during the quest for the perfect punch. We started the main dinner with a tasty green salad with tomatoes topped with a delightfully light dressing, the product of David Bartolotta's labor. We had a really terrific crab cioppino prepared by Lucia Paulazzo and David Suurball while I assisted with the prepping. It was, perhaps, the best cioppino I have ever had in my life. It was made with fresh dungeness crabs, flown from Canada for the occasion, plus prawns, scallops, clams, mussels and red snapper. All that was combined with industrial quantities of garlic, onions and tomatoes. It truly set in my mind the standard of how cioppino should taste and by which all later cioppinos will be judged. It was served with San Francisco style sourdough bread brought in by Remo and Ann Arancio. We closed with MaryAnn Swazo's lemon bites with a choice of vanilla ice cream or whipped cream. Lemon bites is a light cake soaked in fresh lemon juice. We also had a great decaf coffee make by Remo Arancio. What a banquet!

Our next meeting will be Tuesday, November 6. We will celebrate Trafalgar Day and all good things from merry old England. Bill Hellums intends to prepare "an English naval dinner", or rather how the British navy would eat if they knew how to cook! One of his cookbooks is based on the Patrick O'Brien's novels about the British navy during the Napoleonic wars. The main dish will be stewed boar, and it is described from one of the novels as follows:

"I have not eaten so well for many a day...upon my word," said Stephen Maturin..."This excellent dish by me, for instance ... is jabali in Spanish, whereas in Catalan it is senglar."

"Is it swine's flesh?"

"Wild boar ... "

"It is capital eating, to be sure, but I should never have guessed it was swine's flesh. What are these well-tasting soft dark things?"

"There you pose me. They are bolets in Catalan: but what they are called in English I cannot tell. They probably have no name -- no country name, I mean, though the naturalist will always recognize them in the boletus edulis of Linnaeus".

David Suurballe volunteered to make the dessert Spotted Dick, a.k.a. Spotted Dog. "A favorite pudding of Captain Jack Aubrey. It is a handsome object, brown and appetizing: it has a moist, dense, cake-like texture; it is sweet but not too sweet, spicy but not too spicy, and altogether satisfying."

# Jacques Pepin & MSSF

The Thanksgiving program of the new Jacques Pepin Celebrates series includes a mushroom hunt with Mike Boom, Bob Mackler and Mike Wood. The first showing of this program will be Saturday, November 17 at 10:30am and 5:30pm on KQED. It will be on KTEH on Saturday, November 17 at 11am and Wednesday, November 21 at 8pm.

# It's Time to Put the Man Back on Tricholoma Equestre Again

#### By Bill Freedman

Here is a subject one can really sink one's teeth into. I believe that Wild "Manon-Horseback" users can safely get back into their saddles as they bite into dishes prepared with *Tricholoma equestre=flavovirens*. (A neat trick).

Last month, we presented the summary of an article written by French doctors published in the New England Journal of Medicine on 9-13-01 concerning poisonous effects reported from repeatedly eating large quantities of this mushroom. Muscle cells literally dissolved, producing fatigue, weakness, difficulty breathing and brown urine. Three people died. How seriously should trich collectors in the USA view this?

We checked with Dr. Kenneth Cochran, Emeritus Professor of Toxicology from University of Michigan and long-time Toxicology Committee Chairman for NAMA. He has overseen the collection of poison case reports submitted to the Mushroom Poisoning Case Registry for America. He advises that no case of *T. flavorirens* poisoning in humans has ever been found in the USA. Since its inception, 18 cases of various Tricholoma species poisoning in man and animals have been reported. Most of these were in mixed (more than one kind of fungus eaten) mushroom ingestions. Essentially, responses were experienced in the gastro-intestinal system. I have had episodes of diarrhea shortly after eating this mushroom twice. A personal idiosyncracy. A review of all available toxicology references reveals no suggestion of trouble with this mushroom.

Cochran reports rhabdomyolysis, the dissolution of muscle cells, occurred in one case featuring *Psilocybe cubensis* and in two cases with mixed morels and false morels.

A well respected, experienced MSSF member, a doctor, (not mel), one time harvested many of what were then called *Helvella gigas* (Snowbank Mushroom). He and his family enjoyed a meal of them that night while on their trip. Refrigerated then and at home, they comfortably ate a second supper on day two. Bravely, our member prepared them for the third meal. His cautious wife abstained. He developed severe gastro-intestinal symptoms. What had happened? Apparently, toxic chemical changes had occurred in the mushroom tissues even while well refrigerated. The French experience followed the same time pattern. So let readers be warned that the shelf life for wild mushrooms, even if well refrigerated, may be short and that, even if well tolerated for two days, perhaps should then be discarded to be on the safe side. This is a somewhat arbitrary decision on my part. But let caution be the better part of your valour.

Of course, most edible mushrooms are safe to eat after complete drying for many years. Louise and I have enjoyed *Tricholoma magnivelare* (Matsutake), even after three years in deep-freeze wrapped in aluminium foil. Always look for mold contamination in dried material. This usually appears as a speckled white, moist coating on the surface of the slices.

Is the European variety of this fungus identical with that found in the USA? At the Plant Pathology Labs in UC Berkeley I contacted a person who prefers not to be identified who has been working on Tricholomas. He assured me that the work has been done and that valid data supports the observation that DNA sequences for the USA *T. flavovirens* are not identical with specimens from France and Europe. This opinion has apparently been held for some time now by American fungal taxonomists.

Finally, the amount and frequency of hogging so many of these caps is unusual and in questionable good taste. Perhaps serious side effects of many sorts might appear with other edible fungi if they are eaten in enormous quantities and as often as these French gourmands wolfed them down. To my tongue,

### **SOMA** Camp Moving to New Location... Register Now!

The 5th annual SOMA Winter Mushroom Camp is moving to a new location this season. We will be at a Boy Scout camp near Navarro, off of Hwy. 128, between Booneville and the coast, in Mendocino county.

The camp, sponsored by SOMA, the Sonoma County Mycological Association, will take place on Martin Luther King weekend, January 19 - 21, 2002. The camp, a benefit for SOMA, is full of expert-led mushroom forays (we'll have access to 100's of acres of new habitat), classes & workshops (mushroom dyeing, paper making, cultivation, photography, cooking, medicine, ID, & more), slide shows, speakers, specimen tables (with an outdoor, covered display area), and of course, great wild mushroom cuisine.

This year's camp fee, with bunk cabin lodging, will be \$150. If you choose to lodge off-site, the fee is \$125. The \$125 rate will also apply to the 3-sided cabins, or to RV's & camper vans. This year, there is a new registration system. You must obtain, fill out, and return a registration form. Call or e-mail Linda Morris, the SOMA Camp registrar, at 707-773-1011, or lamorr@pacbell.net, to get a form. Registration forms can also be found & printed out at the SOMA website, www.somamushrooms.org. For further questions, you may contact Charmoon Richardson, the SOMA Camp Coordinator, at 707-887-1888, or charmoon@sonic.net.

# Nevada City Foray

Jerry Bloom and Daniel Nicholson are coordinating a fungi foray sponsored by the Yuba Watershed Institute. It will be held Saturday, December 15, 2001. Dr. Dennis Desjardin will attend, help with the id and present an evening slideshow. The event is held 15 miles north of Nevada City at the North Columbia Schoolhouse Cultural Center. It starts at 9 am with an introduction and small slide demonstration presenting basic search images. We will be searching in the south Yuba area from potentially 5000 to 1200 ft elevation. For more info people may call Daniel Nicholson at 530 265-9328.

#### Society Officers

councer officers		
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	(110) 011 0100

#### Membership and Subscription Information

To Join the MSSF and receive this newsletter, send a \$25 check, payable to MSSF (\$20 for seniors 65 and over and full time students), to MSSF Membership, 2750 Market St., Suite 103, San Francisco, CA 94114-1987, Attn: David Bartolotta. Please include contact information: home and/or work phone numbers and email address. New and renewal memberships will be current through December of 2002. To change your mailing address, please notify David. 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 \$32 payable to NAMA. Send it to David at the same address. For further information, email David at david@bartolotta.com or call at (415) 621-3166.

# Wild Mushroom & Wine Dinner Tuesday & Wednesday, December 4 and 5, 2001

Lalimes Restaurant in Berkeley will be holding their 6th annual mushroom dinner in conjuction with the Fungus Fair. As usual the MSSF will have a table set up and will be answering questions and displaying mushrooms. The dinners will be on December 4th and 5th. For reservations call 510-527-9838. The menu is listed below.

One of the courses will be something of a mystery because one never knows what the season will bring. Once again, a blind tasting of special Pinot Noirs will be offered. In addition to our à la carte menu: • Amuse-gueule • Wild mushroom soup • Local chanterelles cooked in an iron skillet with toasted hazelnuts on escarole and frisée • Roast quail stuffed with wild mushrooms, pancetta and truffles on pappardelle with porcini-game jus • DESSERT • Pre-set dinner: \$45.00 Wine selection (five 2-oz. pours): \$45.00

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Intesting upparteche with porting game jus \* DESSERT \* Trester dinner: \$45.00 Wine selection (five 2-oz. pours): \$45.00 **Call For Volunteers**.
Volunteers are the lifeblood of the Fungus Fair. It could not happen without volunteers. Volunteers create the exhibits, set them up, and staff them. Volunteers gather the mushrooms and arrange them on display tables, and staff the tables. Volunteers work on the information and membership tables, help entertain kids, set up speakers.
And volunteers have fun. If you've ever helped with the fair, you know how much fun it is-working together, sharing food, drink, and stories from past fairs.
Now is the time to sign up as a volunteer. To do so contact Lorrie Gallagher, volunteer coordinator. She can be reached at (415) 467-1868 or by e-mail at lorriegallagher@hotmail.com.
Here are some ways in which you can help:
Setting up exhibits. This year we will set up our exhibits the weekend before the fair as well as on the Friday night before the fair.
Staffing exhibits on Saturday and Sunday during the fair. Those who work on Saturday will get a dollar off of admission to the Oakland Museum (which we have to pay to get into the fair). Sunday is a free admission day.
Helping set up speaker and cooking demonstration equipment.
Helping with the children's area.
We need you. Please contact Lorrie now.

# **Tricholoma Flavovirens**

Continued from page 2

they have no especially wonderful taste. I wonder why they ate them for three successive days. Again, this is a warning for us. Moderation can be life saving.

There is much more to be learned about these experiences. The causative agent has not been identified, even if the symptoms can be reproduced in animals. A study comparing the chemical constituents of fresh versus stored specimens has not been done.

In conclusion, there is little to suggest from this report to advise Americans to stop eating these fungi. A Confucian approach would be recommended. You will be safe if each one of your mushrooms is absolutely identified, if reasonable amounts of well-cooked mushroom are eaten, if the mushrooms are properly stored, if you are sober and not high on drugs when you identify them and if you avoid eating them for more than two days. So mount your yellowskinned steeds again without fear and let them carry you away to a mushroom lover's culinary Nirvana with the knowledge that you will return again to find more next year. Bon appetite!

# Splitters

A short discussion on the MSSF email list has led to this new Mycena News featurette. This is the place for species lists and sightings of taxonomic interest. If you have made a list on your recent outing, or have seen something rare or worthy of report, send it to me, and I will include it here. I am not an expert - chances are, you know more than me! So if you are having trouble with an ID, I am afraid I am unlikely to solve the problem. But if you are relatively confident about your mushrooms, and would like to let others know what you have found, please submit your lists for publication.

Fred Stevens has submitted a list from the Yuba Pass foray (page 4 of this newsletter). Otherwise, there was not much doing as of mid-October. However, the table at the October meeting held a very nice *Boletus orovillus* collected by Mark Lockaby, I'm told, in wood chips in the East Bay. I had never seen this mushroom before. (Arora describes it as rare.) It has a bright yellow cap and red pores, though by the time we saw it the pores were bruised very dark blue.

Also of interest was a rumor I heard after the meeting that there was a move afoot among professional mycologists to completely reorganize the *Coprimus* genus. *Coprimus comatus*, the venerable Shaggy Mane, may not survive under its old name. And one of the culprits is actually a member of the MSSF! More on this shocking scandal next month...

Please submit your lists to Gary Wolf, agaricus@aether.com, 415-826.82117.

### Calendar

Continued from page 8

Friday, December 7, Santa Cruz Area: Thomas and Tina Keller will on lead a foray in the UC Santa Cruz campus area, meet at 8 am. E-mail them at ttkeller@worldnet.att.net, or call 408-8790939 for specifics.

Friday, December 7, Tomales Bay State Park: Robert Mackler will lead a foray in Tomales Bay State Park, in Marin County. Meet at 10 am in the small parking area at the upper end of the Jepson Trail. It is on the right side of Pierce Point Road about a quarter mile before the park entrance. Bring lunch and water. Also, bring wax paper bags and boxes to keep the collections intact. Call 51- 799 6756 before 9pm the night before (Thursday) for more information in case of cancellation or changes.

Friday, December 7, Salt Point State Park: Anna Moore will lead a Salt Point foray in Sonoma County. Meet at Stump Beach at 10 am. Contact her at 510-6439518 if need be.

Friday, December 7, Willits Ranch Foray: We will be collecting specimens on a private ranch in northern California, in Mendocino County. The habitat is mostly tanoak and madrone with a few areas of redwood, pine, fir and oak. Meet at 9:30 am, and call or e-mail for directions: Jan Donaghy 510-339-1569 Janman955@aol.com or Mark Lockaby 510-412-9964, Pozer900ss@aol.com

Friday, December 7, Nevada City Foray: A Sierra foothills fair collection, in Nevada City at Pioneer Park. Meet at 9am. Coordinators are Jerry Bloom and Daniel Nicholson, 530-265-9328

Saturday-Sunday December 8-9, Fungus Fair 2001: Oakland Museum, see newsletter for details

Monday, December 10, MSSF Scholarship deadline: Deadline for application for MSSF

#### Mycena News, November, 2001

# David Arora's Mendocino Mushroom Forays Thanksgiving Weekend November 23-25

David Arora, author of Mushrooms Demystified, is once again offering his Thanksgiving weekend mushroom foray at Albion on the Mendocino coast. The foray begins Friday afternoon, November 23, with a mushroom hunt, and runs through noon Sunday. There will be a number of experienced mushroom hunters and talented chefs on hand to contribute their help and expertise to what is always a fun- and fungus-filled weekend. Beginners are welcome. Scheduled activities include mushroom hunts, beginning and intermediate identification workshops on local mushrooms, cooking demonstrations, a potluck fungus feast, and glimpses of Arora's experiences in distant lands. Unscheduled activities include... (well, if we knew what they were then they wouldn't be unscheduled, would they?)

The cost is \$150 per person including lodging (in cabins) and most meals. To register, or for more information, please contact Debbie Viess at (510) 430-9353. Leave a daytime message or phone between 7-9 pm... she has a teenager! Her e-mail address is: amanitarita@yahoo.com. Correspondence or checks (made out to David Arora) should be sent to:

Debbie Viess 328 Marlow Dr. Oakland, CA 94605

Include an e-mail address if you have one. Early registration is advised!

# **Mushroom Dinner**

Pre-fix wild mushroom dinner at the Ross Valley Brewing Company in Fairfax, CA, December 6. Chef Sven Revel wowed the crowd last February in a similar fungatory indulgence, and seeks to repeat or exceed with this Autumnal repast. They serve some pretty decent in-house brews, feature a reasonable wine list, and don't be discouraged by the "brew pub" tag...Sven is a serious chef by any standard. MSSFers attendance highly recommended. If you could help with a display table, let me know. I will give a short talk on the mushrooms served and pitch for society membership. David Campbell, 415-4577662

scholarship. Send inquiries and materials to Robert Mackler, 157 Mesa Court, Hercules, CA 94547

Saturday, December 15, Nevada City foray: Yuba Watershed Institute sponsored foray, 9 am, see newsletter for details

Tuesday, January 8, Culinary Group's Monthly Dinner: Potluck dinner. Come and join us for homemade soups and breads at the Slavonic Cultural Center, located at 60 Onondaga Avenue in San Francisco. Reservations are not required. For information, contact Alvaro Carvajal at (415) 695-0466.

Saturday, January 12, 2002, Mills Canyon foray: Fred Stevens and Bill Freedman will lead the annual foray in creek side Mills Canyon in Burlingame, 10am to noon. See newsletter for details.

Saturday-Monday, January 19 - 21, 2002, SOMA Winter Mushroom Camp: Martin Luther King weekend, see newsletter for details.

January 20, 2002, S.F. Watershed for Beginners: Meet at the intersection of Cañada Road and Edgwood Road, led by Bill Freedman. Young children make it difficult to educate others, limited to 25. Please call 650-344-7774 for reservations.

Friday night to Sunday morning, January 24-27, 2002, Sea Ranch Beginner's Mushroom Foray: (Correction of last month's listing - the trip is for 3 nights, not 2. Thursday, Friday & Saturday). Shared accommodations at Sea Ranch, Sonoma County Coast. Cost is \$100. Email botanist Terry Sullivan for details (terrsull@aol.com). As houses have to be rented, early inquiry is encouraged.

Tuesday, February 5, Culinary Group's Monthly Dinner: At the Slavonic Cultural Center, located at 60 Onondaga Avenue in San Francisco. For reservations, please contact Zoe Caldwell at (510) 569-1554 or e-mail Karin Roos at karo@sprintmail.com

# The Foragers' Report

#### By Patrick Hamilton

"I suspect by next month we'll have had some rain nearby and hopefully more good things to report. . . ," is real close to how we ended last month's column. Well, rains nearby not, but some good things to talk here about.

If we have no mushrooms to foray forth for and to therefore forage, are there still other things to do, "out there," with our (not-so-oddly) inquisitive selves? You bet.

Ever pick pine nuts? Firstly, and this is great, there is very little pressure on any secret patches of pines that you may have. Secondly, and this too is real nice, where some of the best grow is in a place far, far away--all the way over the magnificient Sierra passes to the east side of the mountains.

On and close to those roads the nut seeker observes one of nature's most spectacular seasonal displays--the changing of the Quaking Aspen leaves.

(There is a curious sidebar to this: Populus tremuloides are reputed by some to be the largest organism growing these days. I have heard that large parts of those stands we see are all the same tree; and if you check out the colors right now you see some evidence of this: The same stands, maybe the same "tree," with all its "stems," will be the same color while nearby, in the same exposure to the sunlight will be another stand in a completely different color. Hmm.)

Those pine nuts we were talking about foraging are found on a very sticky, sweetsmelling, resinous tree called P. monophylla (One-Leaved Nut Pine, Nevada Nut Pine, Fremont or Gray Pine). It is easily recognizable because of all pines this is the only one with just (normally) one needle--hence the Latin name. A worthy payoff to find this tree is that the seeds are large, from 1/2"- 3/4" long, and very tasty.

This low growing, formerly most important to Native Americans, conifer persists on dry eastern slopes nearby to the Sierra Juniper (J. ocidentalis) from which one can harvest its berries to use in strong flavored dishes such as Hasenpfeffer (or, in France-civet de lapin). Heck, you can probably even pick up a bunny out there for that too (just not off the road, please).

Other more readily accessible places to look for edible things during this rainless period is in our markets. Dialogue was written on our mssf@yahoogroups.com about store mushrooms such as "Cinnamon Caps" (called by Paul Stamets Hypholoma sublateritium), Golden Chanterelles and Matsutakes.

If you are going to British Columbia, next year in the late summer, you might want to check out the Nass Valley near Terrace to hunt for Blue Chanterelles (Pohozellus multiplex) or Matsutakes (where a lot of those in our produce departments are coming from).

Another, much closer, place to pick some matsies now is up in Oregon near Crescent Junction. Be warned though--it is a business there with harsh regulations and difficult competition and amateurs rarely have a good chance for real success. But you can take the drive around Mt. Bachelor and find lots of Leccinum ponderosum, a very tasty "redhead" that grows to huge proportions. Many brown bagsfull can be found on very short walks through lovely woods. Close to that is an area with many little lakes and near the pretty shores one can find quite a few matsies.

Agaricus augustus (The Prince) was found at a parking lot at Pt Reyes. Chanterelles were seen in Germany and Alsace and in the Rocky Mountains by society members.

Dead Man's Foot (Pisolithus tinctorius) was spotted (amongst other oddities) in Berkeley, and in the Bowl, Lobster mushrooms (probably from the Oregon coast) and some dirty Shrimp Russulas, could be found.

Macrolepiota rachodes ("McLeppies?") are popping in the East Bay but do watch out because a very similarly spelled word can soon follow such ingestion from eating this or a very strong possibility if you mistakenly eat Chlorophyllum mohybdited.

Rumors of A. muscaria "fruiting in the west" have been heard.

Another good rumor, or, in this case, "old-wives' tale," is that if lots of acorns, especially from Q. lobata (Valley Oak) are falling now, then we are in for a harsh winter. What do you think? Appears that this could be true this year.

Under some planted birch trees in Marin Leccinum scabrum are visible.

Lyophyllum decastes (Fried Chicken Mushroom) was found up near Lake Almanor and can be picked later in the year on our coast.

If you can get away for two days try a trip up to the most northern part of California to look for B. edulis growing under Sitka Spruce (Picea sitchensis) close to the border with Oregon.

"I suspect by next month we'll have had some rain nearby and hopefully more good things to report. . . ."

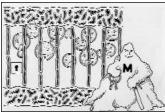
That's all for now folks.

# Have You Looked at Lichens Lately?:

#### By Janet Doell

The next time you are on a mushroom foray and not having much success, why not turn your eyes onto their cousins, the lichens. Cousins? Well, not exactly, but they are related. They are, after all, both fungi. The most significant difference between them is that whereas the mushrooms have to find their nourishment in whatever it is they are living on, lichens can survive on air, rain and sunlight, with maybe a tiny dose of minerals from the rock or bark or whatever to which they are attached.

This miracle of nutritional efficiency became established many millions of years ago, when it occurred to a few fungi of superior intelligence that if they could capture and enslave an organism which was able to photosynthesize, they could persuade their captive to make enough carbohydrates for the two of them, thus relieving them of the tiresome chore of finding food.



The Fungus and his Slaves. From Simon Schwendener, 1869. In Ahmadjian, V. 1993. The Lichen Symbiosis. John Wiley and Sons.

There were microscopic algae around which filled the bill admirably, and thus this unique partnership was developed. It has been a phenomenal success. Lichens can and do live everywhere in the world - in all climates and at all latitudes. Like any good slave owner, if there is such a thing, the fungus protects the alga from UV rays, desiccation, abrasion and so on, in order to assure that their slaves would provide as much nourishment as possible. Lichens

can also live for a very long time, perhaps because they don't have to wear themselves out hunting and gathering like some other supposedly smarter organisms. Lichens grow slowly, especially the small crusty ones you find on rocks and bark. But even the larger ones take as long as a human generation to grow back once they have been removed. In collecting lichens one should never take more than ten percent of what is there.

There is a small number of lichenized fungi which did not settle for a plain old green alga but chose a cyanobacteria (formerly known as a blue green alga) for their photosynthetic partner, thus forming what they probably thought was a higher social order. These lichens have the ability to fix nitrogen. That is, they make atmospheric nitrogen available to other organisms when they die and disintegrate or are eaten. Thus they play a significant part in the ecology of many environments.

Lichens also play an important role as pollution monitors in all parts of the world. They readily absorb toxic substances; but because, like mushrooms, they have no vascular system, they have no good way to excrete them. The presence or absence of lichens, or the amount of heavy metals found in their bodies, provide a measure of the atmospheric pollution of an area. They have been used in many other ways over the years as well.

Like mushrooms, lichens have been used in dyes and medicines. They were also used as preservatives and fixatives for perfumes and for dating the exposure of fresh rock surfaces. And although you wouldn't bring them home to add to the dinner menu, they could keep you alive if you were ever starving. They have been used for food by many peoples, including Native Americans, for a long time. They are an important part of the food source for caribou and moose, slugs and snails, innumerable small insects, and even one species of monkey in China.

Now let's return to your unsuccessful mushroom foray. You look around at the lichens and perhaps the first one you see is a stringy one hanging out of a tree, or a little shrubby one on a twig. These are fruticose lichens and are attached at a single point or not at all. Then on tree bark, or sometimes on a shady bank among the mosses or on rocks, appear the foliose lichens, leafy looking, with distinct upper and lower surfaces and loosely attached. They come in all sizes, from less than an eighth of an inch to five inches or more in diameter.

On that same shady bank you might see some small goblet shaped, branched, or simple stalks growing out of small leafy bases. These are squamulose lichens. If you look more closely at the bark of a tree, perhaps with a hand lens, you'll find small flat lichens firmly attached to the bark. We call these crustose, because they form a crust. On a sunny rock you may find some very colorful lichens that belong in this group.

# **Agaricus Workshop**

November 29th, Thursday, 7PM at the Randall Museum. Agaricus workshop. Fred Stevens will show how to recognize common Agaricus species using macroscopic characters and common reagents. A key to local Agaricus species will be available. There is no charge. No sign-up is required but seating is on first come basis.

# Lichens

#### Continued from page 5

So although you aren't taking these lichens home for dinner, you can feast your eyes on their variety of shapes, colors, and sizes.

To really get enthused about lichens you might want to visit some local areas where they are abundant. Sweeney Ridge in Pacifica is one. It is a somewhat strenuous hike, but easy to get to from the student parking Lot #2 at Skyline College. You'll see the beginning of the trail there. Fort Cronkite has some impressive lichen covered rocks above the path on your right after you leave the furthest west parking lot. The Rock Springs area of Mt. Tamalpais boasts a lot of lichens. Golden Gate Park is another possibility. Avoid well trafficked areas because lichens won't be found there.

To really increase your knowledge about lichens there are several books you should know about. For a very interesting, authentic and wonderfully illustrated introduction to lichens, but not a taxonomic guide, there is the British book "Lichens" by William Purvis, published last year and available from Borders Books for around \$15.00. For a small illustrated beginner's handbook there is "A CALS Mini guide to some common California Lichens" by Richard and Janet Doell, with 41 color photographs and descriptions. Available from the California Lichen Society, 1200 Brickyard Way #302, Pt. Richmond, CA 94801 for \$10.00, \$12.00 if mailed.

To learn how to key lichens you will need "Lichens of California" by Hale and Cole, 1988, University of California Press, available from the publisher or at some bookstores for around \$16.00. Some prefer the well-illustrated "Macrolichens of the Pacific Northwest" by McCune and Geiser, 1997, University of Oregon Press, Corvallis, OR, for about the same price. A large new book, "Lichens of North America", Yale University Press, by Irwin Brodo with photography by Sylvia and Steve Sharnoff will be out this fall for approximately \$60 or \$70.

Finally, be sure to visit the lichen table at the upcoming Fungus Fair. Designed and tended by the California Lichen Society, you will learn more about lichens and about the society and the field trips, lectures, and workshops which it organizes.

## Yuba Pass Foray Report October 15, 2001

It was a beautiful weekend at Chapman C.G. on Hwy 49 nearYuba Pass, sunny, warm, dry, in short, not very good for mushrooms. Collecting was fair at best, but some things were found on wood and in seepage areas. Here's a list (not complete) of fungi displayed on the tables. J.R. Blair gets the award for the prettiest collection, *Tricholomopsis rutilans*. My best find was a *Stemonitis* slime mold, tiny, brown upright fingers on a log. No boletes found unless you count *Suillus* species.

Chrsomphalina aurantiacus, Clitocybe sp., Cryptoporus volvatus, Echinodontium ?, Fomitopsis pinicola, Ganoderma oregonense, Laetiporus conifericola, Nolanea sp., Pholiota malicola group, Pluteus sp. magnus?, Pluteus cervinus, Suillus brevipes, Suillus tomentosus, Suillus umbonatus, Tricholomopsis rutilans, Helvella sp.?

Lyophyllum decastes was brought to the foray by Herman Brown.

# **MSSF** Discussion Group on Yahoo

The MSSF discussion group that is facilitated through Yahoo is a great way to keep in contact with other members. If you're unable to attend all the meetings, or the various walks and forays we sponsor, you can at least get a heads-up on current fungal activity and breaking news through the discussions group. It's an increasingly useful way to exchange and receive information quickly.

To join, go to the MSSF web site: http://www.mssf.org/, and click on the link that says: Click to subscribe to the MSSF mailing list

Coming soon to the web site will be a "members only" area, where one can access the roster and email list. We look forward to hearing from you!

# **Cultivation Corner**

#### By Ken Litchfield, © 2001

Well folks, it's time to announce that other new and exiting development that I mentioned last month. The Cultivation Committee has now moved all of the MSSF mushroom cultivation equipment into our very own laboratory space at the San Francisco Presidio. Our space is in a large communal warehouse that we share with several other organizations of wonderful people working in natural studies and native restoration. We get to share our knowledge and resources with them and vice versa. Besides the lab area we have a spillover gathering area for teaching classes, mushroom and plant ID with books and microscopes, educational and research materials, etc.

We have some cleaning and painting to do in the coming weeks as we set up the equipment in a utilitarian fashion for the efficient sterile culture of numerous types of fungi, many of which we have in a library of cultures kept in the communal walk-in fridge. This library of cultures will be expanded to include both indigenous mushrooms for local native habitat restoration, and wild and cultivated strains from wherever, to study for various pilot programs in research, recycling, composting, and probably at least a little bit of fruiting body comestibility testing in the communal kitchen.

We have pretty much unlimited access to all the raw stable bedding, and other raw and finished compost materials, wood chips, and logs that our mushrooms can eat. We are going to fungally exploit large quantities of eucalyptus logs and wood chips and lesser numbers of other tree species, fungally enhance the current huge composting program, collect, ID, list, culture, and environmentally restore the local native species of fungi in the area, perform mycorrhizal studies of the native plants and fungi, and other programs too interesting to mention.

There is a large volunteer program with anywhere from 10-50 or more folks per afternoon already set up among the other organizations for native plant growing and planting out, seed collecting, compost and manure tea making, and other related activities. It is a fun afternoon regularly scheduled for 3 hours with pleasant facilitators and a social refreshment break. As our contributions grow and expand we look forward to incorporating our work with this group of excited and interested volunteers (and potential members).

And the lab is a pleasant walk or bike ride from the mushroom garden where we are performing our initial experiments. The whole place is just a fun, beautiful, and pleasing experience and we are very happy to be a part of our new community. We look forward to sponsoring many educational and entertaining events in the months and years to come. I would like to thank Enrique Sanchez, Terri Beausejour, Norm Andresen, and Sherry Carvajal for all their help in planning and setting up our new lab. And thanks to all of them along with David Bartollota and Dulci Heiman for preparing a wonderful social potuck to introduce our group with all the other folks.

If you would like to participate in any of the aspects of our new lab and or garden please contact me for information and scheduling. If you have any equipment or materials that you think we could use in the lab please contact me, or Terri Beausejour at russula@home.com. We have some pressure cookers and two HEPA filter laminar flow units along with lots of stuff to get up and running In addition if you have more of the following we can use these: • Precision digital scales - for weighing gram to kilo amounts of ingredients • Propane burners - for pasteurizing substrate in large cooking pots or 55 gallon drums • Paper shredder - bureaucratic strength for shredding newspapers • Ball jars - pint and up • Mixing bowls - metal or glass • Test tubes • Petri dishes • Agar plates • Beakers

Ken Litchfield, 415-863-7618, klitchfield@randall.mus.ca.us

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# Mushroom Hunting With The Help of the Library - Part 2

By John Lennie, Librarian

Last month our library survey looked at those guide books that are most useful in northern California or that claim to cover the entire U.S.A. This month we look at regional guide books for other parts of the U.S.A. and at guide books for foreign countries. Myco-tourists take note.

We start by singling out some of the more recent regional examples with colour illustrations that between them span most of North America. Then we glance at a few European ones and one for New Zealand. Finally, we list all guide books of this type in the library. Numbers in square brackets are the shelf codes for locating the books.

*Mushrooms of Northeastern North America* [571] by Alan Bessette, Arleen Bessette and David Fischer describes more mushrooms and covers more territory than any of the other regional guides. Consequently it is big and not lightly to be thrown in your suitcase. It has good, but rather technical, descriptions with small photographs awkwardly separated from their descriptions. The keys are non-standard and un-workable; instead of confronting two alternatives at each step you may have as many as six. Many species are only described in the keys. Coverage of difficult genera (*Russula, Inacybe*) tends to be skimpy. A positive feature is that it includes some of the smaller mushrooms often ignored by other guide books.

*Mushrooms and Other Fungi of the Midcontinental United States* [429] by D. Huffman, L. Tiffany and G. Knaphus is portable but then it describes far fewer species. illustrations are of uneven quality and are not always correctly named (for instance, 51 is not L. *vistata* and 53 is *L. americana* rather than *L. radodes*). Some pictures show none of the features you need to recognize the mushroom.

Mushrooms of Colorado and the Southern Rocky Mountains [486] by Vera Stucky Evenson has beautiful photographs that do reveal the important characters. It has a section telling you where and when to find mushrooms and a map of Colorado ecosystems. Most mushrooms get a page to themselves so the number covered in a 200-page book is very limited (two *Inoyle*, for instance). What is included is described well but there are no keys. Some species concepts are laudably acknowledged to be fuzzy (e.g. *Pluteus cervinus* and *Russula emetica* are both called groups.) There is at least one really tiny mushroom (*Marasmius thujinus*) and one snow-bank mushroom photographed with real snow (*Myena overholtsii*) Layout, attention to detail and good technical judgment make this book a model of its kind.

*Mushrooms and Truffles of the Southwest United States* [321] by Jack S. States also has a map and a useful section describing the nature of its territory. It justifies its title with an unusual 16 pages on hypogeous fungi. There are also descriptions of two slime molds and a number of lichens. Looking at the photographs you will not see many species that you wouldn't also find in California. The photographs are not the most useful for identification and a number of specimens are not in their prime.

*Texas Musbrooms: A Field Guide* [531] by Susan and Van Metzler is like the Colorado book in that it assigns a whole page to most species though, at 330 pages, its scope is 50% greater. No fuzziness about *arvinus* is acknowledged here. A flagrant mis-identification was noted on page 152 where the species shown is *Myana pura*, not *Laaaria amethystea*. Photographs are vivid but often dark and sometimes excessively so. Significant numbers of the species would not be found in California. The section on stinkhorns is particularly nice.

*Mushrooms of Western Canada* [353] by Helene Schalkwijk-Barendsen follows the European preference for watercolours as a means to emphasize and contrast important details. Here artist and author are the same person. Results are mixed. It is useful to be able to compare related species on one page and there is an adjacent brief description pointing to the more detailed description elsewhere. The detailed descriptions are presented in a uniform layout. Many species are included, including small ones, and difficult genera like *Cortinarius* and *Inocybe* are not shirked.

Identification of Musbrooms: Edible, Poisonous, Hallucinogenic and Wood-Rotting [290, 373] by Gastón Guzmán is the only book we have describing Mexican fungi. The text is in Spanish with line-drawings, which are excellent, and black-and-white photographs, which are poor. The book is rather technical, much of it consisting of keys in which the descriptions are embedded. Many species are described but coverage is sparse considering that it comprises all of Mexico. Notable are over ten pages of common names for fungi in Spanish and indigenous languages. Finally we mention three European guide books that follow a format popular there but rare here (but see the McKnights' book [423] mentioned last month and the Schalkwijk-Barendsen one above.) Namely, a collection of small watercolours on one page is matched with descriptive text on the facing page.

*Guide to Mushrooms and Toadstools* [40, 41, 42] by Morten Lange and F.B. Hora was translated from Danish to be sold in the U.K. Illustrations, reproduced from a famous and much larger work, are small, a bit muddy and shadows of their former selves.

The Mushrooms and Toadstools of Britain and North-Western Europe [442] by Marcel Bon is a more recent example, in this case translated from the French. Mushrooms and Toadstools of Britain and Europe by Régis Courtecuisse, also from the French, is more reliable and has better illustrations but unfortunately is not yet in the library.

700 Mushrooms in Colour Photos by R.M. and S.M. Dähnder [219] is just what it says and you do not have to understand the German text to enjoy the illustrations. A second edition, which we do not have, adds 500 more photos. Both books are quite heavy.

An ongoing series of large, beautifully-produced and illustrated books provides a comprehensive account of Swiss fungi. It is hard to credit that a project of this scale has been undertaken by amateurs! Sadly one of the two principal authors died recent-ly. Five volumes have been published so far and the library has two of them. Volume 1 [114] is unique for the thoroughness of its coverage of ascomycetes, Volume 5 [563] is an account of those mushrooms that few dare to tackle - the Cortinariaceae. These books are surprisingly relevant to North America and are well worth studying.

To close, I give a full list of the guide books that fall into this month's categories: multiple copies of one work are separated by commas, different works by semi-colons and works in languages other than English are marked with an asterisk. You will find the complete list of guide books, arranged by author on page 63 of the catalogue and arranged by title on page 67. Some books are substantial, some are pamphlets, many are dated. To help you judge their relevance, the catalogue includes publication dates and numbers of pages. In the catalogue by shelf code on page 58 you can take one of the references given here and quickly check these out.

It is a pleasure to thank Else C. Vellinga for valuable help in preparing this survey.

For the U.S.A.: Northeast [571], New York [322; 990], Pennsylvania [363], Illinois [362], Great Lakes and Michigan [32, 33; 38, 39; 54; 382], Wisconsin [73], Mid-West [429; 555], North Carolina, Tennessee, Kentucky [326, 483], Colorado and Rockies [168; 486; 491; 521], South-West [321], Texas [531], Idaho [61; 62, 63, 64, 294; 485], Alaska [37, 310; 487].

For other parts of North America: British Columbia [21, 22, 23], Canada [16; 34, 35, 36; 74; 353; 456; 571], Mexico [290, 373].

For Europe: British Isles [72; 86; 94; 292; 425; 503; 514; 528; 983], Scandinavia [40, 42; 80, 81; 117\*; 120\*; 165\*, 166\*; 167\*; 220\*; 225\*, 226\*; 229\*; 445\*, 446\*], Estonia [273\*; 444\*], Czechia [92, 93, 454, 455; 524], Germany [119\*; 121\*; 128\*; 160\*; 219\*; 227\*; 230\*; 305\*; 376\*; 447\*; 452\*; 453\*], Switzerland [114; 448\*; 449\*; 450\*; 451\*; 512; 563], Italy [115, 116; 428; 981, 982], France [122, 123; 442].

For other parts of the world: New-Zealand [111; 272; 301], Israel [470\*; 504\*].

Please send comments and questions to librarian@mssf.org.

# Microscopic Features of the Gilled Fungi

An educational workshop in Petaluma (Nov. 18th) that will focus on the minute characters used to describe the gilled fungi. Observe first hand what amyloid spores look like, cornute cystidia, bilateral gill trama and many more features!

This class will have something for every level of amateur mycologist. A couple of weeks worth of material will be hohenbueheliaed into a one day class! To view the course content or to register go to: http://home.pacbell.net/muscaria

Darvin DeShazer (707) 829-0596 muscaria@pacbell.net Mycological Society of San Francisco c/o The Randall Museum 199 Museum Way San Francisco, CA 94114



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# MSSF CALENDAR, NOVEMBER 2001

Tuesday, November 6: Culinary Group's Monthly Dinner: A British dinner of wild boar and cepes. At the Slavonic Cultural Center, located at 60 Onondaga Avenue in San Francisco. For reservations, please contact Zoe Caldwell at (510) 569-1554 or e-mail Karin Roos at karo@sprintmail.com

Thursday, November 8, Beginning Mushroom Lecture: "Edible and Poisonous Mushrooms of the Bay Area", 7:15 pm, Richmond Branch of the S.F. Public Library, 351 9th Ave, S.F. Debbie Viess will present a slide show and talk geared towards beginning mush-roomers.

Saturday, November 10, 10:00 a.m., Annual Salt Point Foray: Meet at Woodside Campground. This is "just show up" event. Participants are responsible for own campsite/lodging. Note that Woodside's campsites are on "first come, first served" basis. Pottuck feast of picked edibles on Saturday night. Foray Leaders: David and Jeanne Campbell, (415) 457-7662.

Thursday, November 15, Lepiota Workshop: 7:30-9:30 pm, Randall Museum. Else C. Vellinga has specialized in and published extensively on this group of mushrooms. Registration is not necessary, free MSSF event.

**Tuesday, November 20, MSSF General Meeting:** Randall Museum, doors open at 7, lecture starts at 8pm. Speaker is Marilyn Shaw, who is a mycology consultant to the Rocky Mountain Poison and Drug Center in Denver, CO.

Friday thru Sunday, November 16-18: MSSF Mendocino Woodlands Foray. Our annual weekend foray in Mendocino County includes meals and cabin starting Friday night. Bring sleeping bag or bedding, cot is provided. Cost is \$90. For details or reservations, contact Tom Sasaki at (415) 776-0791, 1506 Lyon St, SF, CA 94115.

Saturday and Sunday, November 17-18, Workshop on Edible and Medicinal Mushrooms: Cultures and Techniques by Mo-Mei Chen. A two day "hands on" mushroom workshop will introduce participants to the necessary skills, techniques, and equipment required to develop their own mushroom farm. Location is UC Berkeley with a field trip to Santa Cruz County. Fee: \$225 for members of Jepson Herbarium / \$250 non-members, contact: Staci Markos (510) 643-7008 or smarkos@socrates.berkeley.edu

Sunday, November 18: Microscopic Features of the Gilled Fungi Workshop: 9:30 am-3pm, Darvin DeShazer in Petaluma will focus on the microscopic characters used to describe the gilled fungi, \$40. For registration or questions contact him at 406 Pleasant Hill Rd., Sebastopol, CA 95472, (707) 829-0596, muscaria@pacbell.net

Thanksgiving Weekend, November 23-25, David Arora's Mendocino Mushroom Foray: Cost is \$150 per person. To register, contact Debbie Viess at (510) 430-9353 or e-mail Debbie at amanitarita@yahoo.com. See newsletter for details.

Thursday, November 29, Agaricus Workshop: 7 pm at the Randall Museum, Fred Stevens will show how to recognize common Agaricus species using macroscopic characters and common reagents. A key to local Agaricus species will be available. There is no charge. No sign-up is required but seating is on first come basis.

Saturday, December 1, Beginner's Mushroom Ecology Hike: 10:30 am to 5:00 pm, View some early winter fungi and learn about their role in nature. (About 6 miles and 1,000 ft. elevation gain in Marin County). Email botanist Terry Sullivan at terrsull@aol.com after November 15 for final details.

**Tuesday, December 4, MSSF Annual Holiday Dinner:** At the Snow Building at the Oakland Zoo, located at 9777 Golf Links Road, Oakland. For information and reservations, please contact Sherry Carvajal at (415) 695-0466.

Thursday, December 6, Mushroom Dinner: A pre-fix wild mushroom dinner at the Ross Valley Brewing Company in Fairfax, CA., December 6. See newsletter for details.

Friday, December 7, Mushroom Fair Forays: Forays will be scheduled throughout the Bay Area and beyond to collect specimens for the annual Fungus Fair. Only serious rain will cancel or delay these fungus collections. Bring cardboard boxes, baskets and waxed paper bags.

Friday, December 7, Memorial Park: San Mateo County foray at Memorial Park, 9:30 am, meet near entrance to the park. Mike Wood (510) 357-7696, Fred Stevens (650) 994-1374

Friday, December 7, S.F. Watershed: S.F. Watershed at Las Pulgas Temple on Cañada Road, in San Mateo County, led by Bill Freedman. Trip begins at 10:00 am, please try to arrive 30 minutes earlier. We must leave the watershed trips by 3:00 pm, especially this year, because we must drive to Oakland to prepare for the Fair. Only serious rainfall will cancel or delay these fungus collections. Bring cardboard boxes, baskets and waxed paper bags. 650-344-7774

Friday, December 7, Wunderlich Park: J. R. Blair will be leading a foray in Wunderlich Park, in San Mateo County, 10 am departure. Just show up, or phone or e-mail him if need be - 650-7289405, jrblair@outrageous.net

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