



November 20  
General Meeting Speaker



## William Rubel

“*Amanita Muscaria*: iconic,  
magic, and edible, too.”

Mushrooms are a gift of the forest. On the luckiest of days they spread out between the trees like meadow flowers — yellow, red, russet, white, blue, and grey. And then there is *Amanita muscaria*, the most striking of all, a tall robust mushroom with a red cap with white spots. There is no other mushroom like it. And no other mushroom that has entered culture with such force. It is the iconic mushroom -- the mushroom of myth, of children's books, the mushroom at the base of concrete gnomes, and its pattern of red with white dots a favored motif of a myriad of commercial products. It is a mushroom with a cult following. To those who consume it for its power to inebriate it is a magic mushroom.

It also happens, though, that if *A. muscaria* is parboiled its psychoactive properties are washed away rendering the mushroom edible. In fact, properly prepared *A. muscaria* is not just edible it is incredible. It has a fine texture and a sweet taste. In my estimation it is up there with porcini, chanterelles, and morels as a prime edible mushroom.

There are so many wonderful edibles that we pass by because our field guides don't favor them. Using *A. muscaria* as the poster child, this is what my talk is about.

## MycoDigest: A Look At Fungal Distribution Across Latitudes

Jennifer Kerekes



*Boletus mirabilis*. Photo by Michael Wood, courtesy of [www.mykoweb.com](http://www.mykoweb.com)

Within the natural world, one of the most interesting biogeographic patterns of species diversity is that of the latitudinal diversity gradient (LDG). The LDG observes that for most taxa, species richness increases as you move toward, and is greatest at, the equator. This global biogeographic pattern has been observed for most taxonomic groups, including terrestrial and marine groups, ectothermic and endothermic taxa, as well as passive or active dispersers (Mittelbach et al., 2007). Despite the strength of this pattern, there is not a universally accepted explanation. Although there are many ecological, evolutionary and historical hypotheses, many agree and regard the tropics as a cradle and a museum, where many taxa originate and persist (Mittelbach et al., 2007).

One taxonomic group that appears to be an exception to the latitudinal diversity gradient pattern are Ectomycorrhizal (ECM) fungi. In a recent study

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## PRESIDENT'S POST

*Greetings MSSF Members!*

Did you all hear about the MSSF at the California Academy of Sciences? The Academy invited the MSSF to participate in one of their weekly "Night Life Events", held on Thursday evening each week. The event held on 27 September from 6-10 p.m. called "Fungus Among Us", was a mushroom themed evening with many different mushroom related organizations participating. Fifteen members of our council volunteered their time to participate and help at our information table, located at the main entrance to the Academy. We had fresh and dried wild mushrooms, posters, mushroom paper and dyeing samples, new color MSSF brochures, fungus fair flyers, and more. In addition to the 15 volunteers, 40 MSSF members were invited to attend the event for free. We only had 14 days prior notice of this event, so we only had time to advertise it on the MSSF Yahoo group and via e-mail. Thanks to all of you who volunteered to make our participation at this special event such a success. It was a great membership generating opportunity for the society.

I want to welcome Pascal Pelous as the newest member of the MSSF Council. Pascal has volunteered to become our new Social Media Coordinator. He is assuming the position as the MSSF Yahoo Group Moderator and will also be keeping our Facebook page up to date. Expect to soon see recent pictures and information about events within the society and mycological community at large. I want to thank Carol Hellums who served for several years as the Yahoo Groups Moderator, but she's not going anywhere soon, she is still co-chair of the very successful culinary group. In addition, I want to thank J.R. Blair for agreeing to accept the position as Scholarship Committee chairperson.

Only one volunteer position remains vacant on the council; Education. Check out the position description on the last page of this issue of the Mycena News and on the MSSF website under "File Archives", you may be just the person to fill this very important position.

The Mendocino Foray Camp 9-11 November is sold out. If you have recently been off-planet or under a rock somewhere and totally missed your opportunity to sign-up for this event, contact me and I will place you on the waiting list to fill any cancellations.

Sales of raffle tickets for the beautiful mushroom design, queen size, 25-t-shirt quilt remain brisk with over \$400.00 sold so far. We plan to continue selling tickets until the last day of the Fungus Fair in December. Get your tickets while they last; 1 for \$5.00, 3 for \$10.00, and 7 for \$20.00. See Curt for tickets. (Quilt value is over \$500.00.)

I hope to see many of you in the forest soon or at a future MSSF event. Oh—and pray for rain!

Curt Haney  
President@mssf.org

## CULINARY CORNER

As I look out the window I see clouds trying to get serious and hope it happens and we get a generous rainfall. The weather people say we won't this time but as most mushroomers do, I keep an optimistic frame of mind when I see clouds. And I am getting very weary of having to water my garden most days. It's still just October and rather early for generous fruitings of fungi but I can dream, can't I?

The MSSF has a Culinary Group with members who volunteer to join a team with a captain in charge and create unusual, delicious dinners replete with mushrooms. The diners who have made reservations meet and enjoy the company of others who love to cook and to study mushrooms. Everyone in the Group volunteers to help prepare a dinner at least once each season. When not on the dinner crew for the night, diners bring an appetizer to share. Diners must make reservations no later than the date announced on the MSSF website calendar as the deadline. From the calendar announcement, reservations can be made. Or, they can be made from the members' area by clicking on "event registration". Diners must bring their own table settings, table covering, and dinner beverage. Membership in the MSSF is required and there is a \$10.00 membership fee to join the Group. Dinner is \$16, or \$15 for seniors. More information is available on the website. We suggest you mark your calendars for the dinners. We keep our dinner numbers to no more than 60.

Our October dinner's captains were Lou Prestia and Tom Sasaki. The menu included a plethora of appetizers, most of which involved mushrooms, margarita punch from Norm Andresen, gazpacho from Toni Kiely, salmon grilled on a cedar plank from Lou and Tom, mixed green salad from Paul Lufkin with sea beans (pickleweed) gathered by Al Carvajal, braised mixed greens with lots of sauteed chanterelles from Tom, porcini infused rice from Al Carvajal, apple cake from Mary Ann Swazo and coffee from Carol Reed. Set-up and cleanup were done by all the team plus Kim Ruchamkin, Curt Haney, Carol Reed and Bill Hellums. It was a superb dinner!

November's dinner will be held on the 5th. The menu will center on goat braised in beer. As my best friend and life partner is the goat guy, I can tell you that the goat is something special, pasture raised on a small acreage near Sebastopol, cared for with love and regard. Bill Hellums,



## Mycodigest continued

by Tedersoo and colleagues (2012), they performed a meta-analysis using data from 69 study systems and over 6,000 fungal species in order to understand the diversity and community composition of ECM globally. They found higher diversity of ECM in temperate ecosystems, as compared to tropical ecosystems. In addition, they found that host plant families had the strongest effect on the phylogenetic (i.e. diversity) community composition of fungi. They also found that both temperature and precipitation influence fungal richness in temperate and boreal forest biomes. Tedersoo et al. (2012) suggest one possible difference between tropical and temperate environments is soil heterogeneity, with temperate soils having more vertical heterogeneity, as compared to tropical soils. A recent Molecular Ecology Perspective on the Tedersoo et al. (2012) article by Kennedy and colleagues (2012) points to a number of ECM lineages that are ancestrally tropical, but have diversified in the temperate regions, including *Clavulina*, *Amanita*, *Boletaceae*, *Russulaceae*, *Inocybaceae*, *Cantharellus* and *Scleroderma*.

Does this reversed LDG observation apply to all fungal guilds? This question remains unanswered. In fact, it appears that this may vary across different fungal guilds. For example, Arnold and Lutzoni (2007) sampled endophytic fungi across six locations ranging from the Canadian arctic to the lowland tropical forest of Panama and found that endophyte diversity increased from the northern boreal forests to the tropics, following the classic LDG. There are a number of examples of saprotrophic fungi that have the greatest diversity in the tropics. Examples include the genera *Crinipellis*, *Marasmius* and *Mycena*, where the greatest species diversity occurs in the tropics.

However, an indoor air fungal study by Amend and colleagues (2010), found fungal diversity of indoor environments was significantly higher in the temperate zones than in the tropics. Following that trend, preliminary results from an unpublished study of combined soil fungi and leaf litter fungi, collected along a latitudinal gradient, found the temperate locations had higher species richness as compared to boreal and tropical regions (Kerekes and Goodheart, unpublished). A study by Lodge and colleagues (1995) compiled a survey and observations of 26 mycologists and created a table summarizing responses of the survey, including fungal species diversity correlating with latitude. In general, they found overall diversity was highest in the tropics. However there were exceptions as, for example, the family Cortinariaceae had greater diversity at middle to high latitudes. In addition, they found there was no apparent variation in diversity with latitude with certain other groups, including the Gasteromycetes. As suggested by Tedersoo et al. (2012), these contrasting biogeographic patterns may be due to the fact that different processes, including at the local and global scale, may be responsible for driving the biodiversity of different fungal guilds.

Compared with macro-organisms, soil micro-organisms are poorly understood with respect to biogeographical patterns. To better understand fungal biogeography, continued global taxonomic studies and inventories are needed, along with phylogenetic and systematic studies. This article was not intended to be a complete summary of fungal biogeography. Instead, its purpose was to highlight the recent work by Tedersoo et al. (2012) which makes an important contribution to our understanding of the global patterns of ECM fungi and discusses possible processes responsible for these patterns.



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Past issues of *Mycena News* can be read online at [www.mssf.org](http://www.mssf.org)

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## MycoDigest continued

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*Jennifer Kerekes recently graduated from the University of California, Berkeley where she worked with Dr. Tom Bruns. She is interested in the ecology and diversity of saprotrophic fungal communities.*

## 2012 43rd ANNUAL MSSF FUNGUS FAIR at the LAWRENCE HALL OF SCIENCE

Saturday, December 1st and Sunday, December 2nd

### *Mushroom collection forays*

Friday, November 30, 10 a.m. to 2 p.m.

Check the calendar on the MSSF website: [www.mssf.org](http://www.mssf.org)

### *Set up: small tasks for all levels of experience*

Friday, November 30, 3:30 to 7:30 p.m. or 7:00 to 11 p.m.

### *Volunteers needed during the Fair*

Saturday and Sunday 10 a.m. to 5 p.m.

Dinner will be provided Friday evening; lunch will be provided Saturday and Sunday. Shift obligation is three and a half hours for free admission to the museum throughout the weekend. To sign up for Friday evening, Saturday or Sunday shifts go to our volunteer website:

[Mushrooms.ByteWright.com](http://Mushrooms.ByteWright.com)

If you have questions, contact Stephanie Wright at [FungusFair@ByteWright.com](mailto:FungusFair@ByteWright.com)

## JOIN MSSF YAHOO GROUP

As an MSSF member you can communicate with other members, be informed of MSSF events, forays, and mushroom info, and access 12 years of archival emails and other history through the MSSF Yahoo group. To join the group you must first have a Yahoo ID.

- If you don't already have one, go to [www.yahoo.com](http://www.yahoo.com) and sign up for a free Yahoo account, which includes an email address.
- From the Yahoo email address, send a subscribing email to [mssf-subscribe@yahogroups.com](mailto:mssf-subscribe@yahogroups.com). In the message, include your name and the email address you used to join MSSF.

OR

- After signing up for a Yahoo account go to [groups.yahoo.com](http://groups.yahoo.com) and enter MSSF in the search box. When the group listing displays, click "Join This Group" and follow the instructions. Be sure to give your name and the email address you used to join MSSF.
- Please allow a day or two for verification of your membership.

You can choose to receive individual emails of all postings or a single, daily email that includes all postings, or you can simply read the postings online.

## DAVID ARORA'S THANKSGIVING WEEKEND MUSHROOM WORKSHOP & FORAY

**NOVEMBER 23-25**

Join David Arora for a fungus-filled weekend at the 23rd annual Mendocino mushroom gathering.

Mushroom hunts, cooking, lecture, discussion, ID, etc. with David Arora.

Likely guests include ethnomycologist Sveta Yamin-Pasternak speaking about the traditions and aesthetics of eastern European mushroom cuisine, culinary historian William Rubel, TV chef John Pisto, and wild foods forager Kevin Feinstein, co-author of *The Bay Area Forager*. All levels of experience welcome.

For info and registration go to [davidarora.com](http://davidarora.com).

our leader with the amusing, if loud, call-to-order device, a relic that belongs in an automobile museum, will be captain for this dinner. The menu, rather South of the Border-ish, is as follows:

Margarita punch - Norm Andresen

Appetizers - Everyone

Goat braised in beer - Bill, Alvaro Carvajal

Mexican coleslaw - Stephanie Wright

Black beans with epazote - Jose Ledon

Mexican rice - David Eichorn

Pico de gallo - Bill

Pear clafoutis - Peggy Manuel

The DEADLINE for making reservations for this dinner is October 31. No late reservations will be accepted.

Since we are not yet finding much in the way of wild mushrooms and we are getting into colder weather, our recipe for this month will be an old fashioned comfort food selection that Monique Carment brought to the October dinner—very old school, very easy and very tasty.

### Mexican Cornbread Casserole with Mushrooms

1 can creamed corn

1 can whole corn

1 large onion, diced

4 oz. jar of diced jalapeno peppers

1 1-lb. bag of shredded cheese

1 1-lb. bag of mixed Mexican cheeses

1 small jar diced pimentos

1 lb. shredded mushrooms (Monique used *A. bisporus*, commercial crimini)

2 eggs

2 packages yellow cornbread mix

Milk as called for with cornbread mix

Follow the package directions for cornbread mix. Add all other ingredients and mix well. Place in a large greased cake pan. Bake at 350 degrees F. for at least 45 minutes. Monique says it takes over 1 hour. Test to see if it's done using a toothpick.

Until next month, do rain dances and good luck in the woods.

--Pat



## Patricia “Pat” George Selected as Honorary Member



Pat George has been an active MSSF member and volunteer for 45 years. She joined the society in 1967 and became an active volunteer in 1969 by assisting her former husband Walter Solberg, who was the President. She helped him with the newsletter and many other important jobs.

When the first Fungus Fair was held in 1969 at the California Academy of Sciences and organized by Loraine Berry, Pat was right there helping organize it. In fact she was very pregnant at the time and the day before the fair she was out with a friend in Point Reyes collecting specimens for the fair. She and her friend got lost and were eventually rescued by park rangers, many miles from where they had started. Pat was exhausted when they found her, and was afraid she was going to have the baby in the woods. Nevertheless, she was at the fair the next day, fulfilling her volunteer responsibilities.

In 1970 she was a single mom and working full time, but found extra time to be the Secretary for the Society for several years. At about the same time, late 60's and through the 70's, she was very involved with the culinary group. Besides organizing dinners and cooking for the group, she was Treasurer from 1977 to 1978, and Culinary Chair and a council member from 1985 to 1987. Also, in 1985 she became the editor of the Mycena News and remained editor until 1988.

When she returned from living in Italy, she immediately became active again with the culinary group and was elected as a counselor in 1994. From 1995 to 1996 she was the Vice President and volunteered for many years, organizing the meals, and cooking at the annual Mendocino Woodlands Camp, plus assisting with the Fungus Fairs. She also helped Loraine Berry with her “Mushroom Madness”; fabulous dinners at her house that were fund raisers for the MSSF.

About the time most people would have said, “I’ve done my share” and stepped down, Pat accepted the chairperson position for the culinary group in 2006 and continued until 2011. During her long term as chair, the culinary group thrived and became very successful. Under her guidance, the monthly dinners were fabulous, and the group assisted in organizing and decorating for the annual holiday dinner each year.

When Pat was asked to remind us of her volunteer service accomplishments to the society, here in her own words is what she said:

*I have always loved being a member of the MSSF. I have learned so much, and value the friendship and camaraderie of the very diverse and interesting people I've met. It's been a rich and rewarding part of my life. I don't proclaim myself an amateur “scientist” but I will always be fascinated with the fungal world and want to learn more and more about it. I'll probably even become part of it, finally.*

By a unanimous decision, the Council of the Mycological Society of San Francisco has awarded Pat George with an Honorary Membership.

Thank you Pat, for your many dedicated years of volunteer service.

## RAFFLE! RAFFLE! RAFFLE!

### MUSHROOM THEMED, QUEEN SIZE, VINTAGE T-SHIRT QUILT RAFFLE

MSSF will be raffling a custom made, mushroom themed, queen size, vintage T-shirt quilt at the 43rd annual MSSF Fungus Fair, December 1-2, 2012, at the Lawrence Hall of Science in Berkeley.

The front displays 25 vintage mushroom T-shirts donated by society members, surrounded by a mushroom print border. It's backed with comfy cotton flannel and the stitching throughout is a mushroom pattern. It will be on display now through November at general meetings and culinary dinners, where tickets will be sold.

The quilt is valued at \$500.00, and tickets will be 1 for \$5.00, 3 for \$10.00, or 7 for \$20.00. The raffle pays for another quilt crafted from only vintage MSSF T-shirts for display at future society events.



The raffle concludes at the end of the fungus fair on Sunday, December 2nd. See Curt Haney for tickets at the general meetings and the culinary dinners, and also at the special display at this year's fungus fair.

*You will not need to be present to win!*

## MSSF GOES FACEBOOK

*Hello everyone!*

I recently volunteered to coordinate social media at MSSF and one of my first goals was to take advantage of Facebook's potential to connect people who have the same interest in mycology; sharing fungus related news, having discussions about it, developing mycological interest with others and seeing our society grow.

For those of you already active on Facebook, please visit our MSSF page <https://www.facebook.com/pages/Mycological-Society-of-San-Francisco/207808605900376>, "Like" us and contribute whenever you wish to keep the page active, interesting, interactive and attractive.

For those of you not interested in such media, I will keep you posted on this new initiative. But, with one billion users, Facebook has become a unique and free opportunity to increase not only our local visibility but also our visibility with mycological groups around the globe.

Sincerely, Pascal Pelous  
MSSF Social Media Coordinator



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## MSSF Calendar November 2012

**Thursday, November 1, 6:30 p.m. - What's a Mushroom Anyway?**  
S. F. County Fair Bldg, Golden Gate Pk, 9th & Lincoln, S.F.  
MSSF past President J.R. Blair speaks to the CA Native Plant Society

**Monday, November 5, 7 p.m. - Culinary Group Dinner**  
S. F. County Fair Bldg, Golden Gate Pk, 9th & Lincoln, S.F.  
South of the Border with Bill Hellums and a braised goat.  
Be sure to bring your tableware and a beverage. The SFCFB  
does not provide dishes, etc. The next dinner is January 7.

**Tuesday, November 13, 7 p.m. - MSSF Council Meeting**

**Tuesday, November 20, 7 p.m. - MSSF General Meeting**  
Randall Museum, 199 Museum Way, San Francisco.  
7 p.m. - Mushroom identification and refreshments.  
8 p.m. - Speaker: William Rubel

**Fri., Nov. 9 – Sun. Nov. 11, - MSSF Mendocino Camp 2012**  
Annual MSSF Mendocino Fall Foray (sold out)

**Saturday, Dec. 1- Sunday, Dec. 2, 43<sup>rd</sup> Annual Fungus Fair**  
Lawrence Hall of Science, 1 Centennial Drive, Berkeley.

**Sunday, Dec. 9, 7 p.m. - MSSF Annual Holiday Dinner**  
Hall of Flowers - Golden Gate Park, 9th Ave. & Lincoln, S.F.  
Contact Person Alvaro Carvajal at 415-317-1970

## MSSF Annual Holiday Dinner

This year's fungal feast will be held at the Hall of Flowers in Golden Gate Park, 9th & Lincoln, in San Francisco. It will be on Sunday, December 9th, with appetizers starting at 7:00 p.m. and dinner served at 8:00 p.m. If you bring an appetizer—preferably with mushrooms—you will receive one raffle ticket and you may win a cool prize. (NOTE: Raffle tickets will not be available for sale).

Cost for the dinner is: MSSF members-\$45.00, guests-\$50.00, children under 5-free, 6-12-\$25.00. This is a BYOB event and you will also need to bring your own place settings. Alvaro Carvajal is the coordinator and contact person for the dinner this year. Watch for event registration on the website soon, including the planned menu with each course containing fungi! Payment will be required in advance to hold reservations.

Check the MSSF online calendar at:  
<http://www.mssf.org/calendar/index.php>  
for full details, latest updates  
and schedule changes.

The submission deadline for the December, 2012  
issue of Mycena News is November 15th.  
Send all articles, calendar items and other information  
to: [mycenanews@mssf.org](mailto:mycenanews@mssf.org).