



JANUARY 19
General Meeting Speaker
Robert Dale Rogers



Twenty-One Myths of Medicinal Mushrooms:
Information on the use of medicinal mushrooms for preventive and therapeutic modalities has increased on the internet in the past decade. Some is based on science and most on marketing. This talk will look at 21 common misconceptions, helping separate fact from fiction.

About the speaker:

Robert Dale Rogers has been an herbalist for over forty years. He has a Bachelor of Science from the University of Alberta, where he is an assistant clinical professor in Family Medicine. He teaches plant medicine, including herbology, aromatherapy and flower essences at Earth Spirit Medicine at the Northern Star College of Mystical Studies in Edmonton, Alberta, Canada. Robert is past chair of the Alberta Natural Health Agricultural Network and Community Health Council of Capital Health. He is a Fellow of the International College of Nutrition, past-chair of the Medicinal Mushroom Committee of the North American Mycological Association, and is on the editorial boards of the *International Journal of Medicinal Mushrooms*, and *Discovery Phytomedicine*. He is the author of over 40 books on medicinal plants and fungi of the boreal forest.

Table of Contents

Mushroom of the Month	by K. Litchfield	1
President Post	by B. Wenck-Reilly	2
Schizophyllum	by D. Arora & W. So	4
Culinary Corner	by H. Lunan	5
Hospitality	by E. Multhaup	5
Holiday Dinner 2015 Report	by E. Multhaup	6
Bizarre World of Fungi: 1965	by B. Sommer	7
Academic Quadrant	by J. Shay	8
Announcements / Events		9
2015 Fungus Fair	by J. Shay	10
David Arora's talk	by D. Tighe	11
Cultivation Quarters	by K. Litchfield	12
Fungus Fair Species list	by D. Nolan	13
Calendar		15

**Mushroom of the Month:
*Chanterelle***

by Ken Litchfield

This month's profiled mushroom is the delectable Chanterelle, one of the most distinctive and easily recognized mushrooms in all its many colors and meaty forms. These golden, yellow, white, rosy, scarlet, purple, blue, and black cornucopias of succulent brawn belong to the genera *Cantharellus*, *Craterellus*, *Gomphus*, *Turbinellus*, and *Polyozellus*. Rather than popping up quickly from quiescent primordial buttons that only need enough rain to expand the preformed babies,

these mushrooms require an extended period of slower growth and development, meaning that they don't usually start manifesting themselves very early in the rainy season, but more toward midwinter and ongoing if the rains are.



Cantharellus californicus © Michael Wood

Chanterelles have a saying that they can be found after about six weeks of regular rain, whereas porcinis are said to pop up seven to ten days after about an inch of rain. Most of this chanterelloid group can be recognized by their trumpet or cornucopiod forms and their gill-like ridges like raised runnels or corrugations with interstitial perpendicular connecting struts that give the hymenium under the trumpet a netted look.

PRESIDENT'S POST *by Brennan Wenck*

Hello MSSF Members,

We started off last year with the driest January in San Francisco history, and things didn't get too much better from there. Nonetheless there is quite a bit of fungi out there to collect. I have been getting quite a few reports of early season mushrooms popping up here, there, and everywhere. Here's to hoping the new year and the El Niño we have been waiting for are finally going to deliver!

2015 certainly ended on a high note. The Fungus Fair reported awesome attendance for a one-day fair. From my perspective, that was a very smoothly run fair. Key to the fair's success were Jackie Shay and Stephanie Wright, who co-coordinated the fair. Other key players who certainly deserve mention are Monique Carment, Enrique Sanchez, Tyler Taunton, Curt Haney, J.R. Blair, and Henry Shaw. The fair would never survive without the hundreds of volunteers who fill in all the gaps at each of these events. It truly is spectacular to see a group come together, and put on such a spectacular showing. I was near the door during the event, and it was great to hear so many people on their way in and out as they were dazzled by the overall magnitude of the Fair. The 2016 Fungus Fair has already been scheduled for December 4th, in the same space, at the County Fair Building. Contact me, Stephanie or Jackie if you are interested in playing a role. We welcome all feed-back in regards to the fair, in an effort to constantly improve. Please send correspondence to either Jackie Shay (vicepresident@mssf.org) or myself (president@mssf.org).

The annual holiday dinner was held at the County Fair Building on Monday, December 14th. Another success as we finished up 2015. Eric Multhaupt coordinated with chefs Michael Polite and Michael Brady of Vin Antico Restaurant in San Rafael to produce a delectable meal. The evening was rounded out with a pot-luck appetizer bar, a raffle, and festive music and dancing. This was my first society dinner, due to teaching conflicts that typically prevent me from Monday night attendance, however, I am now thinking that I need to give up my Monday classes for more of these amazing societal dinners. I hope many others choose to become more active with the culinary aspect of the MSSF as well.

Looking forward to 2016 we have a lot of exciting events, starting with the general meeting on Tuesday, January 19th. The meeting will be held at the County Fair Building, with wine and appetizers starting at 7pm.

Keep an eye on the calendar for any number of Quickstart Forays that will pop up from time to time, and also for the morel hunt that happens each year in late April/early May.

Thanks again to all of you who continually contribute to make the Society a great organization. Remember to share your love of the forests and mushrooms with a friend, and bring them to the next meeting if you can. We'd love to meet them!

Happy foraging,
-Brennan

FUNGUS FAIR 2015 VOLUNTEERS



Most of these species are mycorrhizal on oak species or in mixed forest and can be added to the backyard mushroom garden as slurries of skillet rejects around the base of appropriate garden or park trees.

The true chanterelles of California belong to the *Cantharellus* genus and include *C. californicus*, *C. formosus*, *C. subalbidus*, and *C. roseocanus*, two golds, a white, and a rosy. I've heard that sometimes the true golden chanterelle is called *tête de renard*, and if you turn the golden chanterelle on its side, the furry ears leading down the snout to the black nose of dirt make it look like a fox face. The delicate chanterelles belong to the *Craterellus* genus with *C. cornucopioides* and *C. tubaeformis*, the black trumpet and the yellow foot. The royal velvet chanterelle, better known by one of its less delectable names, *oreilles de cochon*, is *Gomphus clavatus*. The scarlet lace chanterelle is the tastier common name, at least to the steampunk crowd, for *Turbinellus floccosus*. Its former reptilian common name *Cantharellus formosus* © Michael Wood was an impediment to getting staid mushroom folk to try it as a good edible. The blue chanterelle, while maybe not a California species, is found further up the coast in Oregon, British Columbia, and Alaska. It is *Polyozellus multiplex*, "manybranches manybranches", so sliced they named it twice, once in Greek and once in Latin.



Cantharellus formosus © Michael Wood

Both the royal velvet and the scarlet lace chanterelle are good edibles. I recall that, years ago, one of the folks that was generally considered to be one of the society's better chefs, when asked how to prepare the royal velvet, wrote up a method of preparation that became overly involved and then ended with the recommendation to throw it in the trash without bothering for tasting. I don't think it is that difficult to prepare either of these mushrooms to be quite tasty and we have experimented with them both at MycoMendoMondo for several years. Certainly, we have come up with several recipes for the royal velvet that everyone at the events thought were great. The scarlet lace is such a big beautiful meaty mushroom, common in the Mendo woods in November, that we couldn't believe that it wouldn't be a good one for eating, as it is in other parts of the world. But still we have problems getting some folks to even try them because they heard hearsay from some archaic time in the past from some real or claimed authority with questionable taste buds, that they weren't edible. Rather than being open to safely experimenting with new mushrooms and preparations they dismiss rational experimentation in preference to erroneous irrational hearsay and impose that hearsay on anyone considering proper experimentation. If they aren't willing open their mouth for a simple taste test, then it would be better keep it closed to spreading erroneous hearsay. Should anyone with a differing opinion wish to debate the edibility of certain mushrooms with a credible article in these pages, the *Mycena News* welcomes your written input in our public forum.



Cantharellus subalbidus © Michael Wood

All these chanterelle species make up a category of mushroom flesh that is best prepared similarly to concentrate their flavor by a special method that drives off their excess water. The mushrooms are pulled or sliced into strips or chopped into stout, hefty, hunky chunks and simmered in a skillet. Rather quickly a substantial amount of water is exuded into the pan. Rather than simmering the mushroom in this liquid, which would be like boiling the flesh, instead pour off the liquid into a side bowl several times as it develops in the pan. When the flesh stops exuding more liquid and just begins to sear, slosh the liquid in the side bowl back into the pan a little at a time until all of the liquid has been evaporated except for a smattering of concentrated broth. This precooked concentrated chanterelle flesh can then be frozen for later use. Or, to this smaller amount of broth, you then add your butter/bacon fat/vegetable oil for sautéing, and sauté for a gentle browning of the flesh. Add salt and pepper to taste for the basic flavor of the mushroom. Or modify with smoked salt, sautéed *Alliums*, and/or a whole host of other goodies that can be found in plenty of chanterelle recipes. Most folks think that golden chanterelles, at least, have a fruity or apricoty flavor so some folks actually add apricots to the dish, which defeats the inherent flavor of the mushroom. Rather, if you add pears these have a more subtle flavor and a sweetness that brings out and complements the chanterelle.



Cantharellus roseocanus © Mike Wood

For a simple and easy dip that never leaves leftovers at a gourmet potluck, slice and dice the chanterelle flesh fine and after the broth creation phase, and the sauté phase, to the pan of brothy sautéed flesh add a big enough dollop of cream cheese or sour cream to just coat all the pieces of chanterelle flesh. Stir to warm the cream sauce and fully coat the pieces, add smoked salt and black pepper, and pour the pan contents into a serving bowl. Enjoy with ritzy type crackers.

SPLIT SPLIT GILLS AND GROUND GROUND NUTS ON A FINE FINE DAY*by David Arora & Wendy So*

[In which we describe a popular preparation of Split gills (*Schizophyllum*) and ground nuts (what Americans call peanuts) from the border region of the Congo, Angola and Zambia.]

Schizophyllum are widely harvested here in central Africa, and sold dried in the local markets; typically they are wild, not cultivated as in SE Asia. The local people like to boil them for two hours (throw them in a pot of water and simmer over charcoal while doing other things, so “not worth the effort” doesn’t apply), then they pinch off the tough base and split the split gills into little strips. These are seasoned with salt, put into a frying pan with some of the soaking water, and then ground ground nuts (widely sold in little packets as peanut meal) are stirred in, one small chili is added and they are cooked briefly. The result is delicious! The *Schizophyllum* provide chewy meatlike morsels as well as flavor. Grace, who cleans our cottage and told us how to prepare them, approved of our effort at preparing this local dish. When we offered her a taste she ate the whole bowl!

Later, it poured. We retreated indoors from our veranda and were discussing dessert options when termites swarmed. Attracted by the veranda light, they crawled under the closed doors by the hundreds. Small ants suddenly materialized from the walls and attacked the termites. Carnage ensued, with ants biting the termites’ heads, and then dismantling and devouring some on the spot and dragging others away like chain gangs hauling logs.

Knowing that winged termites are a popular seasonal delicacy, we decided to try some, but had to act fast because the ants weren’t going leave us any. So, we gathered up a bunch of live termites, drowned them in a bowl of water and then pulled off their wings. Fried very briefly, for one minute only, they had a sweet, nutty taste and were crunchy like fried pork rinds. The only drawback was that these were not very big termites. The locals eat the biggest kinds only, as otherwise it is a lot of work for just one or two bites.

In our cottage there are also these amazing paper-thin spiders. They hang around doorways and I have never seen something so flat that wasn’t squished! They are perfectly adapted to squeezing through the narrowest gaps so they can come indoors to feast on mosquitoes and other insects. Geckos also abound. The locals don’t eat these, so we didn’t either.



CULINARY CORNER

by Heather Lunan

At this year's annual holiday dinner, a contest was held for the best tasting appetizer. The winner was David Campbell's fresh porcini puffs! Tender and perfectly seasoned slabs of porcini in a porcini reduction sauce were nestled into crispy puff pastry shells, a "bodacious and sassy" recipe that David kindly shares for your holiday festivities.

FRESH PORCINI PUFFS

Ingredients:

- 1 package of puff pastry sheets, thawed
- A "butt load" of fresh porcini, thickly sliced (a pound would be perfect)
- 2 Tbl olive oil
- 1 1/2 cups water
- Salt
- 1/4 cup chopped parsley
- 1/4 cup grated Parmesan

Method:

- Clean the porcini, trim the stems and remove the sponge. In a saucepan add the sponge, stem trimmings, and water and simmer for 30 minutes. Strain and reserve broth.
- While the broth is simmering, preheat the oven to 400F and remove the puff pastry from the package. Flour a cutting board and cut out rounds of pastry using a small biscuit cutter or glass dipped in flour. Place on a parchment lined baking sheet. Bake until golden per package directions. While still warm, split the puffs into half. Allow to cool.
- In a sauté pan over medium heat, add the olive oil and add the porcini slices and season with salt. Sauté the porcini slices on both sides. Add the reserved porcini broth and cook until the liquid is almost evaporated. Taste for seasoning and add chopped parsley.
- On a serving platter, arrange the puff pastry halves cut side up. Top with a slice of porcini, sprinkle with Parmesan, and serve with confidence. This is a sublime starter for any holiday meal.

The Culinary Group dinners resume on January 4th for a New Year's Celebration, please be sure to register for a spot.

Happy New Year to everyone!

HOSPITALITY

by Eric Multhaup

The Hospitality Committee gives a shout-out to guest chef Kathy Douglass for her excellent appetizer at the November General meeting. Kathy made a Thai soup full of exotic ingredients including coconut milk, lemongrass, galangal, kared peppers, lime juice, and fish sauce, plus fresh mint, basil and cilantro.



As an additional treat, guest speaker Katrina Blair whipped up a blender full of her signature "Wild Weed Potion", foraged from Golden Gate Park earlier in the day.



YOU TOO can be a guest chef for a hospitality hour. Just e-mail George at george.willis@sbcglobal.net, or Eric at mullew@comcast.net. You will have an \$80 food budget from the MSSF, and Hospitality Committee members available for advice and support.

HOLIDAY DINNER REPORT *by Eric Multhaup*

The 2015 Holiday Dinner was attended by 105 amiable and jovial MSSF members and guests. The event included some tried and true components as well as some new wrinkles. The members' appetizer tables were chock-full of mushroom and other dishes. The mushroom dishes were eligible for entry into the First Annual MSSF Holiday Appetizer Competition, emphasis on the competition, which was fierce, in that inimitably good-natured MSSF way. A distinguished panel of three highly qualified, unbiased and independent judges, Paul Lufkin, Pat George, and Heather Lunan, tasted all entries without knowing the identity of the preparer. Tied for first place, in alphabetical order, were Lorraine Berry with her shaggy mane pate, and David Campbell with his fresh porcini on toast. In sole possession of second place was David Eichorn, with his home-made cognac and mushroom pate. (David Eichorn, always scrupulously fair and honest, did not even offer the judges any of his home-made cognac until after the judging had been completed).

Next, there was a raffle under the direction of Kristina Gale, and it was propelled by entertaining items donated by Sue Fisher King. The traditional egg nog stand, owned and operated by Toni Kiely, generated a lot of good spirits and goodwill. The generally drab Hall of Flowers venue was dramatically enlivened by the heroic efforts of Lesley DeLone and her team of tasteful decorators.

Dinner itself was provided by the A-Team from Vin Antico, a restaurant in San Rafael that for several years has made a point of always having interesting mushroom dishes on the menu. There was a mushroom component to each dish from the candy cap toast and mushroom duxelles first course through the porcini-dusted tiramisu for dessert.

We had background dinner music from guitarist Gary Vogensen. After dinner the music got kicked up several notches through the efforts of Austin DeLone, who is the husband of Lesley and one of the great rock and roll keyboardists of our era. They played some very lively and seasonally appropriate music, including a rendition of "Santa Baby", sung by Lesley, and danced to by the young at heart and light of feet attendees.

Finally, Fred Stevens offered a moving tribute to Bill Freedman, who attended with Louise and other family members, for his decades of service to the MSSF in education, toxicology, forays, etc.. Fred encapsulated our collective gratitude to Bill by giving him a copy of his new book, *California Mushrooms*. Bill, in his irrepressible nonagenarian manner, hefted the tome and quipped, "I hope I get to finish it".

The Holiday Dinner Committee, composed of Ellen Burkhart, Lesley DeLone, Kristin Jensen, and Eric Multhaup, was happy to carry on this excellent MSSF tradition, and would like to thank those past organizers who were so helpful to us this year, particularly Al Carvajal and Curt Haney.



BIZARRE WORLD OF THE FUNGI: 1965

by Bob Sommer

A friend who recently retired was downsizing his bookshelves, including his prized collection of National Geographic magazines dating back into the 1960s. Unable to find a library interested in receiving them, he searched through the magazines in hopes of finding individual issues to give to friends. In the October 1965 issue, he came across a beautifully illustrated article “Bizarre World of the Fungi” which he promptly sent to me. The article was written by Paul A. Zahl, then senior scientist at the National Geographic Society. It contained 38 Kodachrome and Ektachrome photos he had taken of fungi, plus two painted charts by the natural history artist Fred Sweney, one chart showing 12 toxic fungi and the other featuring 18 edibles, whose details were authenticated by Dr. Alexander Smith of the University of Michigan, author of a popular field guide in its day. Several of the foray participants in the photos were Zahl family members. Under each photograph was a description of mushroom size in fractions or multiples of life size.

The article began with the Boyne City May Morel Hunt, still going on after fifty years, although at the time there were only 73 contestants “racing into the tall timber like a scattering of hungry chickens.” Zahl pointed out that no one knew how to grow morels commercially, and a fortune awaited the person who could accomplish this feat, a pronouncement still largely accurate although claims of success have been made. The term “toadstool” was at the time and still is considered a poor choice for a poisonous mushroom. Other than frequent name changes, still a part of professional mycology, the text was both accurate and current. There were sections on commercial mushroom cultivation, an explanation of the fairy rings around Stonehenge, national preferences among edibles, some material on molds, rusts, smuts, and slime molds, mushroom postage stamps, bioluminescent fungi, and those like *Pilobolus* that shoot off spore balls or lasso underground nematodes. There were only a few puzzling claims, perhaps representing conventional beliefs of the time. Zahl warns against mixing doubtful with edible mushrooms, as “a dangerous type may contaminate a wholesome variety merely by touch,” later reinforced by the admonition “never place edible and poisonous mushrooms together as mere touch may contaminate.” Among the field guides recommended by Zahl, I recognized only three authors’ names: Louis C. K. Krieger, Margaret McKenny, and Alexander H. Smith

Of course there is more to the National Geographic than mushrooms. Other articles in this issue included “Portugal at the crossroads”; “Watercolors of game birds” (with a companion 78 rpm record album); “Profiles of modern presidents” (from Theodore Roosevelt to Herbert Hoover); and “Mustang, Nepal’s lost kingdom.” There were nostalgic ads for expired corporations and products such as Pan Am Airlines; Great Northern Railway; the Airstream Land Yacht; RCA color television; Sawyer Slide Projector; and the Kodak Instamatic “Pop on a flashcube and take 4 flash pictures without changing bulbs!”.

Bob Sommer - rosommer@ucdavis.edu

MORE MEMORIES FROM THE 2015 FUNGUS FAIR



ACADEMIC QUADRANT by Jackie Shay
Featuring Dr. Kendra Baumgartner

RESEARCH

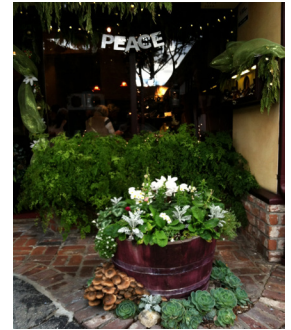


Dr. Baumgartner is a Plant Pathologist at the University of California at Davis and part of the Agricultural Research Service (ARS) of the United States Department of Agriculture (USDA) studying grapevine disease. She runs a research program in sustainable viticulture, which was established in 2000 by Congressional mandate. The purpose of the program is to develop effective and efficient control strategies for fungal diseases of grape. Basic research on pathogen biology and disease epidemiology is at the core of this mission. Her research interests include infection biology, population genetics, and host resistance to fungal pathogens that attack the permanent, woody structure of the vine. Her current focus is on *Armillaria mellea*.

Dr. Baumgartner's research is focused on developing vineyard practices that reduce chemical inputs, while achieving production and quality demands. Her research on *Armillaria* root disease in California vineyards led to the development of nonchemical control practices that growers use to mitigate yield losses from infected vines. Her basic research on the causal pathogen of *Armillaria* root disease, *Armillaria mellea*, has resulted in study tools (e.g., rapid inoculation technique, genetic transformation system) for researchers to examine the infection process in the laboratory and to screen for resistant rootstocks.

BIOGRAPHY

Dr. Baumgartner's background is in Natural Resources Conservation and Plant Pathology. In 1996, she received her Bachelor's degree in Forest Biology from the College of Environmental Science and Forestry in Syracuse, New York. From 1996-2000, she trained as a plant pathologist at UC Davis. As a doctoral student at UC Davis, she studied the epidemiology of *Armillaria* root disease in California forests and vineyards. In 2000, she joined the USDA, ARS in Davis, CA.



PUBLICATIONS

- Baumgartner K, Baker, BB, Korhonen K, Zhao J, Hughes KW, Bruhn J, Bowman TS, Bergemann SE. In press. Evidence of natural hybridization among homothallic members of the basidiomycete *Armillaria mellea sensu stricto*. Fungal Biology.
- Travadon R, Smith ME, Fujiyoshi P, Douhan GW, Rizzo DM, Baumgartner K. In press. Inferring dispersal patterns of the generalist root fungus *Armillaria mellea*. New Phytologist.
- Travadon R, Baumgartner K, Rolshausen PE, Gubler WD, Sosnowski M, Lecomte P, Halleen F, Peros J-P. 2012. Genetic structure of the fungal grapevine pathogen *Eutypa lata* from four continents. Plant Pathology: In press (DOI: 10.1111/J.1365-3059.2011).
- Baumgartner K, Coetzee MPA, Hoffmeister D. 2011. Secrets of the subterranean pathosystem of *Armillaria*. Molecular Plant Pathology 12: 515-534.
- Petit E, Barriault E, Baumgartner K, Wilcox W, Rolshausen PE. 2011. *Cylindrocarpon* species associated with black-foot of grapevine in the northeastern United States and southeastern Canada. American Journal of Enology and Viticulture 62: 177-183.
- Baumgartner K, Fujiyoshi P, Foster GD, Bailey AM. 2010. Agrobacterium-mediated transformation for investigation of somatic recombination in the fungal pathogen *Armillaria*. Applied and Environmental Microbiology 76: 7990-7996.
- Blaedow KE, Baumgartner K, Cox KD, Schnabel G. 2010. Natural infection of an herbaceous host by *Armillaria*: a case study on *Hemerocallis*. Canadian Journal of Plant Pathology 32:351-360.
- Baumgartner K, Travadon R, Bruhn J, Bergemann S. 2010. Contrasting patterns of genetic diversity and population structure of *Armillaria mellea sensu stricto* in the eastern and western United States. Phytopathology 100:708-718.
- Baumgartner K, Bhat R, Fujiyoshi P. 2010. A rapid infection assay for *Armillaria* and real-time PCR quantitation of the fungal biomass in planta. Fungal Biology 114:107-119.



ANNOUNCEMENTS / EVENTS

MSSF Urban Park Quick Start Forays!

The MSSF Education Committee is planning forays for people new to, or interested in, local mushrooms. These forays are intended to familiarize beginners with field collecting and characters useful in helping to identify mushrooms and other fungi. We usually gather for an orientation to go over collecting policies, practices and etiquette. We also point out nearby locations where fungi are likely to be found. After the orientation, we break out into smaller groups & hunt for fresh fungi for one to two hours. On returning, we display specimens collected and discuss their key identifying characters.

The next foray is planned for **Sunday, January 10**, in the Presidio of San Francisco where mushroom collecting is allowed. Consult the [event](#) on our website for more info if interested.

New MSSF members, families and guests, beginners or not, are welcome. Non-members of the MSSF are also welcome. It is hoped that the forays will provide information about local fungi and stir an interest to learn more.

Email Paul Koski at pkoski04@yahoo.com for details about these forays and to be put on the foray list.

Herbal Mead Making

7pm-10:30ish Every Wednesday Night
at Omni Labs
4799 Shattuck, Oakland

Contact litchfield.ken@gmail.com for more information

A new 501c non-profit called
the *Mycological Society of Marin County* is formed!

The second meeting will be held at the **Mill Valley library** on
January 13, 2015 at 6:30 PM

Ken Litchfield will speak on

“The Gardener’s Guide to Growing and Using Healthful Mushrooms”

Check and Register for this event [online](#)

For more information call Kevin Sadlier at 415-389-8333.

JOHN LENNIE MEMORIAL by Else Vellinga

John passed away in November 2015; he was a long time member of the MSSF. A mushroom walk led by Bill Freedman in the seventies led him to the society, in which he became active in various functions. He was president in 1989 and 1990, he was librarian and cataloged all the books, and was involved in attempts to reach agreements with the State parks about picking mushrooms. He was a regular at fungus fairs, always smiling and helping people to get to know their local mushrooms, and helped behind the scenes with the labeling and cataloging. John went to a European mycological meeting focusing on conservation to get a better understanding of the effects of picking on mushroom fruiting, and met his future wife Else there; together they enjoyed many walks and mushrooms in the California woods.

He was a gentle man, and leaves a big void.

A memorial for John will be held on January 9, 2PM at the Friends Meetinghouse in Berkeley, at the corner of Vine and Walnut Street (kitty corner from the original Peet’s Coffee).

John was one of the founders of a local group for people with Parkinson’s disease, PDActive, and donations to that organization are very welcome (see pdactive.org).



John photographing *Macrolepiota procera* in the Dutch dunes

MSSF FUNGUS FAIR 2105: THE SMILES THE RAIN BRINGS

by Jackie Shay

It was all smiles at the county fair building for the 45th annual Fungus Fair on December 6th. The day started off with excitement and anticipation. Volunteers were eager to participate and vendors were happy to see everything set up and ready for them. Although it had rained all morning, that did not stop the steady stream of new faces and familiar ones from coming to meet people, talk fungi, and make some ornaments. Folks of all ages enjoyed a slew of activities all day. The energy was high and the fair was a great success!

There were many favorite parts of the fair. People enjoyed chatting with Dennis Desjardin, Mike Wood, and Fred Stevens about “California Mushrooms” and having their fungal finds identified. T-shirts and scarves were hanging to dry from their mushroom dyes. Beautiful hues of gold and subtle browns adorned the mushroom dying table led by Allison Shiozaki. The cooking demos made the auditorium smell heavenly as guests learned about introductory microscopy and cultivation. The mushroom demonstration table was full despite the tough year. The rains brought even more fresh specimens, a fan favorite being the inking *Coprinus comatus*. Vendors from all over sold their wares, including Sean Edgerton who created the artwork for the fair this year.

As I walked around talking with people about their experiences, I was so pleased to hear everyone’s love of fungi. It is always so nice to be a member of this beautiful fungal community. To share the day with all these like-minded individuals is special and heartwarming. This year was particularly full of cheer! One comment I heard a few times was “this fair just had a good feeling to it, it has good vibes!” I noticed it myself. Everyone helped create a comfortable and informative space where newcomers could learn about the magical world of fungi.

On that note, I want to personally thank every person who was involved this year and all past fungus fairs! It amazes me to see how all these small working pieces come together to make such a huge event. I am so grateful to all the people that make fungus fair possible. Thank you everyone for making this year so memorable! I can not wait for next year!

If you would like to be a part of the planning committee for the 2016 Fungus Fair, please contact me at vicepresident@mssf.org. We will have our first meeting in April. We need all the help we can get! Additionally, please feel free to contact me if you have any suggestions for next year! I would also be happy to have any pictures or personal anecdotes from the day to share in the future for advertising. You are the fungus fair experience, and sharing that story can help create a larger MSSF community. It’s up to you!!!

Thank you to all! Yours in spores,
Jackie Shay
VP MSSF, Co-Chair MSSF Fungus Fair



Photos by Henry Shaw & Pascal Pelous

DAVID ARORA'S FUNGUS FAIR TALK *by Damon Tighe*

Shoulder-to-shoulder people packed into the San Francisco Fair Building's recreation room at the most recent MSSF Fungus Fair on December 6th, leaving not a flat surface unsettled, to hear *Mushrooms Demystified's* author David Arora speak. His voice, soft, prevented the talk from being moved into the larger auditorium where more people could comfortably fit, which actually played out well to the punch line of David's talk and heightened the capacity for storytelling for in a small room focused on one soft voice it is much easier to hear the full range of emotions.

Spending no time David jumped right into some of the hottest debates at forays and in fungal forums that divide people and attempted to "demythify" them: should wild mushrooms be cut or plucked, and can we over-harvest fungi from a forest? Reminding people of the life cycle of fungi and that the mushroom is merely the fruiting body of a much larger organism laid the ground work for evaluating the concerns of the cut or pluck. If you cut the fruit or pull the fruit from a bush or tree, the tree does not seem to care much, and that most likely is true for fungi as well. Harvesting by cutting or picking and doing so intensely overtime according to "Mushroom picking does not impair future harvests - results of a long-term study in Switzerland" over a 27-year period, seems to have no effect on the diversity or the total amount of mushrooms produced compared to a control area. The idea of over-harvesting, as far as we have evidence, is a myth, and so is a difference between the health of the fungi from cutting or plucking.

As humans, though, we constantly disturb the world around us, and does this have an effect on our fungal friends? David had some great evidence in a paper "Is forest mushroom productivity driven by tree growth? Results from a thinning experiment" and data on both suggest that a fair amount actually helps produce more of interested in. He mentioned mushrooms humans are inter-are edge dwellers just like hu-edges we build into our envi-evolved at the edge of the for-prisingly, we modify the world and the fungi we have become also the ones that thrive at the

Shifting gears, David of paper and quickly his voice read a series of stories people their relationship to fungi people and landscapes that had in fungi. Through these stories citement and in deep empathy crowd react to turns and reflec-hard for him to stop. Storytell-David joy and he's very good down and reflected on what had brought us all to the fair that day.

Despite the designs of most fungus fair posters, (this year's MSSF poster included) that are full of images of just fungi, there is much more going on that is implicit to the imagery. David ended with a poster from Nagano Prefecture in Japan that he says is one of the few he's ever seen that make the relationships between people, landscapes, and fungi explicit, with the drawing of a mother holding a mushroom in one hand and her daughter's hand in the other. Both are sporting collection baskets as they walk into a forest. Looking around the room, I see the "poster" for our event packed shoulder to shoulder listening to David. Beside me is a young family with their baby silently in a stroller, to the side of them someone who is easily someone's grandfather and in front of him two kids that looked as if they just graduated college.

"Mushrooms are meaningless – they feed, they breed, but they have no intrinsic meaning but for the interest that we take in them. Life itself has no inherent meaning that I can detect, but we create meaning through our relationships, our ambition, and our curiosity." – David Arora



Japan's matsutake harvest that of disturbance in the forest the mushrooms humans are that for the most part the ested in, especially for eating, mans, and thus thrive in the ronment. We are a species that est and the savannah. Not sur-around us to this aesthetic, accustomed to consuming are edge of the forest.

pulled out a number of sheets also shifted as he began to had shared with him about and the relationships to other been fostered by a curiosity David's voice quivered in ex-and you could feel the whole tions in the stories. It seemed ing is something that brings at it, but he put the last paper

CULTIVATION QUARTERS

Ken Litchfield

Well, it's January and we're finally having enough rain to get some substantial moisture into the ground and bring some mushrooms out. For this month's Cultivation Quarters we'll look at prepping your winter garden for veggies and mushrooms, especially for mycorrhizal and saprobic lifestyle mushrooms. Later in the spring garden prepping season we'll look at the primary parasitic lifestyle gourmet mushroom that you can grow in your garden.

The best time of year to add wood chips to your garden is usually in the late summer or early fall, when the summer garden is mostly spent and the winter garden is getting planted. While the ground is dry and easily walked on or driven over by wheeled delivery vehicles, large piles of wood chips can be delivered strategically around the garden for later spreading right up until the rains begin like now and even after. A fresh thick top dressing of manure and compost can be placed on the cleared beds that will be planted for fall and winter greens and root crops and slurries of compost mushrooms. Greens like chard, spinach, and coles for cabbages, kales, kohlrabi, broccoli, cauliflower, and roots like beets, turnips, carrots, and watermelon radishes can all be planted in the warm days of early fall in late September and October to get some growth in before the cooler rainy season sets in. But they can all be started now that the rainy season has arrived also and the moisture and humidity of winter has set in. Once the rains start and the mushrooms are out, the bases and slurries of shaggies and button mushrooms can be added to the compost/manure layer. And the bases and slurries of mulch mushrooms like garden giant, blewits, elm oyster, stinky whiffleball, and tree heartwood feeders like oysters, turkey tails, sulfur tuft, and others can also be added to the mulch layer.

After the spent summer beds have been cleared and turned with the added organic matter, they are wetted with recycled water from the gray water system. The beds are turned into mud wallows to get all the parched soil wetted and the surface tension of the dry soil broken open to the soaking of the moisture. Otherwise, the soil just sheds the water which runs out of the beds through cracks and across resistant dust patches. Once the surface tension is all broken and the soil in the beds is thoroughly wallowed in mud, it can sit for a day or two to rest and then be turned again to fluff the wetted soil and moisten it again. To this wetted and fluffed soil-compost-manure mix can be added a top layer of woodchips or fresh raw straw as a mulch to hold in the moisture and suppress any weed seeds that may start to germinate. Bowls and furrows can be run in the mulch to thin it out for clumps or rows of seeds or young plants. The thick layer of wood chip mulch holds in the moisture and keeps the weed seedlings down while your desired seeds and young plants aren't smothered by the mulch in their thinned bowls and furrows. This mulch also provides the layer of food for the mulch mushrooms. The compost mushrooms down in the compost/manure layer will fruit up through the wood chip mulch layer in amongst the mulch mushrooms in the same territory. All the leaves of the veggies plants over the mulch will provide a humidity layer for the compost and mulch mushrooms to fruit in.

When the rains do start they will soak through the mulch and into the soil where that rain water will be captured and stored under the blanket of mulch. This is the better way to capture rain water directly in the soil where it can be stored more efficiently and usefully than with tanks or other rainwater catchment systems that are quickly drained and can't be replenished in the dry season. The mulch method of rainwater catchment is perfect for dry farming. A woodchip mulch that is ½ to 1 ½ or 2 feet thick will hold the water in the soil even into August and September when the last rains have been done and gone for months. The soil under a thick mulch will still be as moist as it was in March or April.

Another purpose served by maintaining a thick mulch is soil building by the mulch mushroom mycelium. As the mycelium breaks down the bottom of the mulch, it becomes black with decay and releases nutrients for the compost mushrooms and roots of the plants. And any tree roots in the vicinity, especially pine and oak, will grow up into the bottom composty regions of the mulch layer. Anytime the mulch is raked away from these fine multibranching tree roots they get exposed and usually a little damaged, giving them greater exposure to inoculation by slurries of mycorrhizal mushrooms during the rainy season. After slurring the mulch is raked back onto the exposed area and watered in.

Maintaining a thick layer of woodchip mulch that transitions into the broken down compost layer and then to the soil below provides a diverse range of habitats for many more types of mushrooms in the garden. This simulates the duff layer in the wild woodlands or the thatch layer in wild meadows.

MSSF FUNGUS FAIR 2015 FAIR SPECIES LIST by Dennis Nolan

<i>Agaricus abruptibulbus</i>	<i>Entoloma sericatum</i>	<i>Lepiota spheniscispora</i>	<i>Pluteus cervinus</i>
<i>Agaricus arorae</i>	<i>Entoloma</i> sp.	<i>Leptonia carnea</i>	<i>Pluteus</i> sp.
<i>Agaricus bernardii</i>	<i>Exidia glandulosa</i>	<i>Leratiomyces Ceres</i>	<i>Polyporus elegans</i>
<i>Agaricus bitorquis</i>	<i>Fomitopsis cajanderi</i>	<i>Leratiomyces riparia</i>	<i>Porphyrellus porphyrosporus</i>
<i>Agaricus deardorffensis</i>	<i>Fomitopsis pinicola</i>	<i>Leucoagaricus cupresseus</i>	<i>Postia caesia</i>
<i>Agaricus fissuratus</i>	<i>Fuscoporia gilva</i>	<i>Leucoagaricus erythrophaeus</i>	<i>Postia fragilis</i>
<i>Agaricus moelleri</i>	<i>Galerina marginata</i>	<i>Leucoagaricus rubrotinctus</i>	<i>Psathyrella corrugis</i>
<i>Agaricus semotus</i>	<i>Ganoderma applanatum</i>	<i>Leucoagaricus rubrotinctus</i>	<i>Psathyrella longipes</i>
<i>Agaricus smithii</i>	<i>Ganoderma brownii</i>	group	<i>Psathyrella longistriata</i>
<i>Agaricus subrutilescens</i>	<i>Ganoderma tsugae</i>	<i>Leucoagaricus</i> sp.	<i>Psathyrella piluliformis</i>
<i>Agrocybe pediades</i> var <i>fimicola</i>	<i>Geastrum saccatum</i>	<i>Leucocoprinus sequoii</i>	<i>Psathyrella</i> sp.
<i>Amanita semanta</i> var <i>evanalatus</i>	<i>Geastrum</i> sp.	<i>Leucopaxillus gentianeus</i>	<i>Pseudohydnum gelatinosum</i>
<i>Armillaria mellea</i>	<i>Gomphidius ochraceus</i>	<i>Lycogala epidendrum</i>	<i>Ramaria acrisiccescens</i>
<i>Astraeus hygrometricus</i>	<i>Gomphidius oregonensis</i>	<i>Lycoperdon perlatum</i>	<i>Ramaria araiospora</i>
<i>Bjerkandera adusta</i>	<i>Gomphidius smithii</i>	<i>Lyophyllum</i> sp.	<i>Ramaria conjunctipes</i> var. <i>tugensis</i>
<i>Bolbitius reticulatus</i>	<i>Gomphidius subroseus</i>	<i>Marasmiellus candidus</i>	<i>Ramaria formosa</i>
<i>Bolbitius titubans</i>	<i>Gomphus clavatus</i>	<i>Marasmius calbouniae</i>	<i>Ramaria gelatiniaurantia</i>
<i>Boletus eastwoodiae</i>	<i>Gymnopilus bellulus</i>	<i>Marasmius quercophilus</i>	<i>Ramaria maculatipes</i>
<i>Boletus edulis</i> var. <i>grandedulis</i>	<i>Gymnopilus sapineus</i>	<i>Melanoleuca melaleuca</i>	<i>Ramaria rasilispora</i> var. <i>rasilispora</i>
<i>Boletus rubripes</i>	<i>Gymnopilus</i> sp.	<i>Melanoleuca</i> sp.	
<i>Bulgaria inquinans</i>	<i>Gymnopilus ventricosus</i>	<i>Micromphale sequoiae</i>	<i>Ramaria rubricarnata</i>
<i>Caloboletus rubripes</i>	<i>Gymnopus alcalivirens</i>	<i>Mycena abramsii</i>	<i>Rhizopogon</i> sp.
<i>Calocera cornea</i>	<i>Gymnopus brassicolens</i>	<i>Mycena acicula</i>	<i>Rhodocollybia butyracea</i>
<i>Cantharellus californicus</i>	<i>Gymnopus dryophilus</i>	<i>Mycena adscendens</i>	<i>Rhodocollybia</i> sp.
<i>Cantharellus formosus</i>	<i>Gymnopus quercophilus</i>	<i>Mycena aurantiomarginata</i>	<i>Russula albonigra</i>
<i>Caulorhiza umbonata</i>	<i>Gymnopus</i> sp.	<i>Mycena californiensis</i>	<i>Russula brevipes</i>
<i>Chalciporus piperatoides</i>	<i>Gymnopus sulphureus</i>	<i>Mycena capillaripes</i>	<i>Russula californiensis</i>
<i>Chroogomphus ochraceus</i>	<i>Gymnopus villosipes</i>	<i>Mycena capillaris</i>	<i>Russula cerolens</i>
<i>Chroogomphus tomentosus</i>	<i>Hebeloma crustuliniforme</i>	<i>Mycena filopes</i>	<i>Russula cremoricolor</i>
<i>Clitocybe deceptiva</i>	<i>Hebeloma</i> sp.	<i>Mycena fuscopurpurea</i>	<i>Russula fragrantissima</i>
<i>Clitocybe metachroa</i>	<i>Hemimycena</i> sp.	<i>Mycena galericulata</i>	<i>Russula sanguinea</i>
<i>Clitocybe nuda</i>	<i>Hohenbuehelia petaloides</i>	<i>Mycena galopus</i>	<i>Russula</i> sp.
<i>Clitocybe salmonilamella</i>	<i>Hygrocybe virescens</i>	<i>Mycena leptoccephala</i>	<i>Schizophyllum commune</i>
<i>Clitocybe</i> sp.	<i>Hygrophoropsis aurantiaca</i>	<i>Mycena maculata</i>	<i>Sparassis radica</i>
<i>Clitopilus prunulus</i>	<i>Hypholoma capnoides</i>	<i>Mycena oregonensis</i>	<i>Stereum hirsutum</i>
<i>Coprinellus micaceus</i>	<i>Hypholoma fasciculare</i>	<i>Mycena pura</i>	<i>Stereum ochraceoflavum</i>
<i>Coprinopsis lagopus</i>	<i>Inocybe geophylla</i>	<i>Mycena purpureofusca</i>	<i>Strobilurus trullisatus</i>
<i>Coprinopsis niveus</i>	<i>Inocybe insinuata</i>	<i>Nolanea</i> sp.	<i>Stropharia ambigua</i>
<i>Coprinopsis radiatus</i> group	<i>Inocybe sororia</i>	<i>Omphalotus olivascens</i>	<i>Suillus brevipes</i>
<i>Coprinus comatus</i>	<i>Inonotus</i> sp.	<i>Panaeolus papilionaceus</i>	<i>Suillus caeruleascens</i>
<i>Corticaciaea serulato</i>	<i>Lactarius deliciosus</i>	<i>Parasola conopilus</i>	<i>Suillus lakei</i>
<i>Cortinarius fuligineofolius</i>	<i>Lactarius rubrilacteus</i>	<i>Phaeocollybia</i> sp.	<i>Suillus ponderosus</i>
<i>Cortinarius infractus</i>	<i>Lactarius rufulus</i>	<i>Phaeolus schweinitzii</i>	<i>Suillus pungens</i>
<i>Cortinarius ponderosus</i>	<i>Laetiporus gilbertsonii</i>	<i>Phellinus gilvus</i>	<i>Suillus quiescens</i>
<i>Cortinarius xanthodryophilus</i>	<i>Lentinellus ursinus</i>	<i>Phlebia radiata</i>	<i>Suillus tomentosus</i>
<i>Crepidotus mollis</i>	<i>Lepiota atrodisca</i>	<i>Phlebia</i> sp.	<i>Tephroclybe rancida</i>
<i>Crepidotus</i> sp.	<i>Lepiota castaneidisca</i>	<i>Phlebia tremellosa</i>	<i>Trametes betulina</i>
<i>Cryptoporus volvatus</i>	<i>Lepiota flammeotincta</i>	<i>Pholiota terrestris</i>	<i>Trametes ochracea</i>
<i>Entoloma bloxamii</i>	<i>Lepiota magnispora</i>	<i>Pholiota velaglutinosa</i>	<i>Trametes versicolor</i>
<i>Entoloma hirtipes</i>	<i>Lepiota roseolivida</i>	<i>Phyllotopsis nidulans</i>	<i>Tremella aurantia</i>
<i>Entoloma leptonipes</i>	<i>Lepiota rubrotinctoides</i>	<i>Pisolithus arrhizus</i>	<i>Tremella foliacea</i>
<i>Entoloma medianox</i>	<i>Lepiota</i> sp.	<i>Pleurotus ostreatus</i>	<i>Tremella mesenterica</i>

Trichaptum abietinum
Tricholoma imbricatum
Tricholoma muricatum
Tricholoma pardinum
Tricholoma vaccinum
Tubaria confragosa
Tubaria furfuracea

Tubaria sp.
Turbinellus floccosus
Xerocomellus chrysenteron
Xerocomellus mendocinensis
Xerocomellus zelleri
Xerocomus subtomentosus
Xerocomus subtomentosus

Xeromphalina campanella
Xeromphalina caudicinalis
Xeromphalina fulvipipes
Xylaria hypoxylon

Total: 224

MUSHROOM SIGHTINGS



flypaper mushroom?! - Salt Point SP



oyster mushroom - Oakland Hills



Cortinarius subfoetidus - Salt Point SP



coral fungi- Salt Point SP

Send photos of your findings to mycenanews@mssf.org to be published in the next newsletter.

MSSF Calendar January 2016

Monday, January 4, 7:00 p.m. - Culinary Group Dinner

Hall of Flowers, County Fair Building
Golden Gate Pk., 9th & Lincoln, S.F.
Advance registration required at mssf.org.
Email culinary@mssf.org to volunteer.

Friday-Sunday, January 8, 9, 10 - Santa Cruz Fungus Fair

Louden Nelson Community Center
301 Center Street, Santa Cruz, CA 95060
<http://ffsc.us/fair/2016/about>

Sunday, January 10, 9:30 a.m. - noon- Quick Start Foray

Local San Francisco foray in the Presidio in San Francisco. Meet in the Vista Point Parking area Parking Lot on Arguello Avenue in the Presidio. Advance registration required at mssf.org.

Tuesday, January 19, 7:00pm - 10:00 pm - General Meeting

Hall of Flowers, County Fair Building
Golden Gate Pk., 9th & Lincoln, S.F.

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

MSSF Volunteer Opportunities

Join the Council leadership, learn the inner workings of the MSSF and help make decisions that shape the future of the society. Do your part by contributing your time to this 100% volunteer organization!

To learn more about all council and committee positions, go to: www.mssf.org members-only area, file archives, council member position descriptions. Or email president@mssf.org.

MORE FACES FROM 2015 FUNGUS FAIR



Councilors for the 2015-2016 term

Councilors: (1 year term) Julia Cabral and Joe Soeller
(2 year term) Tyler Taunton and Madhu Kottalam



Mycena News

January 2016, vol. 67:5

Mycena News is the members' newsletter of the Mycological Society of San Francisco, published monthly from September to May.

Please e-mail photos, comments, corrections, and correspondence to mycenanews@mssf.org

To subscribe, renew, or make address changes, please contact
Zachary Mayes:
Membership@MSSF.org

Past issues of *Mycena News* can be read online at www.mssf.org

Mycological Society of San Francisco
The Randall Museum - 199 Museum Way, SF, CA 94114

Submit to *Mycena News*! The submission deadline for the February 2016 issue is January 15th. Send all articles, calendar items and other information to: mycenanews@mssf.org

Contributors:

Heather Lunan
Bob Sommer
Damon Tighe
Wendy So
David Arora
Jackie Shay
Ken Litchfield
Brennan Wenck-Reilly
Dennis Nolan

Editing and Layout:

Ken Litchfield
Wendy So
Carol Hellums
Pascal Pelous

MSSF Officers 2015-2016

President: Brennan Wenck
President@MSSF.org

Vice-President: Jackie Shay
VicePresident@MSSF.org

Secretary: Eric Multhaupt
Secretary@MSSF.org

Treasurer: Henry Shaw
Treasurer@MSSF.org