Mycena News



The Mycological Society of San Francisco • February 2013, vol. 64:06

February 19 General Meeting Speaker



Alan Rockefeller

"The Mushrooms of Mexico"

Alan is studying the mushrooms of California and Mexico. He has been researching the taxonomy of macrofungi in Mexico for the past six years. When he is not photographing mushrooms he is busy sequencing fungal DNA, and photographing the microscopic features of mushrooms and hacking electronics.

Alan Rockefeller recently returned from five months of collecting in Mexico with extensive field work in the states of Jalisco, Colima, Michoacan, the Federal District, Puebla, Veracruz and Oaxaca.

His presentation, "Mushrooms of Mexico," includes many images of Mexican mushrooms. The talk features Alan's best photos of edible, poisonous and psychoactive mushrooms, micrographs, and photos of Mexican mushroom food.

MycoDigest:

Next Generation Sequencing (NGS)

Or How We Will (Maybe) Finally Understand Fungal Diversity

Sara Branco

How many fungi inhabit a given place? How are fungal species distributed across the landscape? How prevalent is habitat specificity in fungi? These are basic questions that are difficult to answer. There are many more fungi in a given place than what is led to believe by, for example, identifying and counting fruit bodies. The vast majority of species remain invisible to the naked eye either in the soil, on tree roots or in wood. Such cryptic fungal nature prevents a simple, fast and straightforward species count, making it difficult to know species ranges and preferences. This allied to the fact that there are many different fungal species in a given place and that fungi tend to be difficult to identify, makes an overall understanding of fungal diversity patterns challenging to achieve.

Recent technological advancements have allowed significant progress in documenting fungal diversity. The use of DNA-based techniques, mainly DNA sequencing, for detecting fungi in the environment revolutionized our view of how and where fungi live. In short, the use of DNA for fungal identification relies on comparing small DNA regions across different specimens; the similarity across these sequences determines if specimens should be grouped together or not. The most widely used genomic region for delimiting fungal species is the Internal Transcribed Spacer (ITS), a short DNA segment with enough intra-specific variation that is suitable for diagnosing different species. This marker is sequenced for the fungi in the communities under study



Fig. 1 – How many fungi inhabit this forest?

and Operational Taxonomic Units (OTUs) are defined by using a sequence similarity cut-off, commonly 95 or 97%. OTUs (or species) are then the components of focal

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MycoDigest is dedicated to the scientific review of mycological information.

President's Post

Greetings MSSF Members!

It's turning out to be a pretty good mushroom season for choice edibles near our fabulous bay area. I recently received reports that hedgehogs, yellow feet, matsutake, and black trumpets have started fruiting to our north, and porcini, candy caps, honeys, and others to our south in the Monterey Bay area. I personally have harvested porcini, shaggy parasols, honeys, candy caps, the prince, and much more here in San Francisco. Get out there and look around, I promise you'll be surprised.

Else Vellinga was our speaker at the January general meeting at the Randall Museum. Due to a scheduling conflict, the regular venue in the theatre was not available to us. Instead, we held the meeting downstairs in the Buckley room. It appears that this same conflict will continue to plague us in the future, so the council has decided to hold a special event each January in the Buckley room downstairs; such as a cooking demonstration, photo contest, or some other fun event.

Last month I talked about the successful Holiday Dinner that was held at the Hall of Flowers in Golden Gate Park. If we plan to have an equivalent event next year planning needs to start now, especially if a restaurant is used, since most are booked up well in advance for December dates. If you are interested in organizing the 2013 holiday dinner this year let me know. This is your chance to have it held in the East Bay, Marin, the Peninsula, or even again in San Francisco.

In this issue of the Mycena News you will read articles about the "Greening of the MSSF" and about future changes to our membership plans and dues fees. Many other mycological societies and non-profit organizations have done, or are doing, the same thing that the MSSF has decided to do. The council has decided that our longterm goal should be to reduce the number of printed and mailed copies of this newsletter to zero. Eventually we will become a nearly paperless organization and perhaps the first nationally recognized "green" non-profit mycological society. If and when we meet our goal and become recognized as a "green" non-profit, we could become eligible to apply for grants ranging from \$1,000 to \$20,000 per grant. Currently, nearly 30% of the MSSF annual expenses go to printing and mailing this newsletter. The council feels this money could be better utilized fulfilling our current and future educational goals within the society.

I hope to see many of you in the forest soon, or at a future MSSF event!

--Curt Haney, President@mssf.org

CULINARY CORNER

CULINARY CORNER SWAMPED BY CANDY CAPS!

Mushroomers report that Candy Caps (Lactarius rubidus



Candy Cap (*Lactarius rubidus*) Photo: Fred Stevens

or its larger somewhat less strongly flavored cousin, *Lactarius rufulus*) are popping up in huge numbers. Collected in many parts of the Bay Area, these little flavor gems are featured in the Jan./Feb. issue of *Saveur* magazine as one of its favorite 100 places and things to eat. In *Saveur's* words, "It's hard not to fall in love with

a mushroom that smells like maple syrup. The aroma of this unique variety of *Lactarius fragilis*, which is native to Northern California, intensifies when dried and brings a concentrated woodsy sweetness to any dish, whether it's a savory risotto or a sweet creme brulee."

In the restless world of taxonomy, the names of fungi are in flux and many Lactarius species are still in limbo; *Lactarius rubidus* has also been known as *Lactarius fragilis* var. *rubidis*. Whatever they are called, they are unique and worthy of a respected spot in your pantry.

Best dried, they should be stored in bug-proof jars and will last for a long time. I use some I gathered and dried years ago. They are very versatile and can be used to flavor vodka, to make a syrup and to make an extract to be used in baking. Oh, and of course in biscotti and other cookies, in custard style desserts, bread pudding, cheesecake and other sweet preparations.

Try a unique way to make vodka more interesting:

Combine ¼ cup dried candy caps and one cup of vodka in a jar, seal and infuse for 3 days, then strain. This would probably work with bourbon, too, but I haven't tried it.

Try Elissa Rubin-Mahon's recipe for candy cap flavoring extract she taught at SOMA Camp a few years ago:

Pack a jar up to an inch of the fill line with dried candy caps. Pour in enough spirits (151 proof rum or Everclear—no nipping from the bottle; they're strong!) to the fill line. Allow to stand at least 2 weeks in a dark place. Shake occasionally.

Pour the infused liquid into another container and squeeze the mushrooms dry to remove as much of the alcohol as possible. Remove the candy caps to a saucepan. Pour fil-Continued on page 5

MycoDigest continued

communities and the base for statistical analyses aimed at unveiling patterns of fungal diversity. This approach has been used to describe and compare numerous fungal communities, for example across forest types, biomes, or disturbance regimes. An ongoing local example is a study focusing on the mycorrhizal fungi associated with isolated pine trees at Point Reyes Natural Seashore. This project uses NGS to assess whether some fungi specifically associate with the outer or inner sections of the pine root systems.

ITS is a multi-copy marker (i.e., it occurs several times across the DNA), making it easy and fast to amplify and sequence. However, it is not perfect at discriminating all fungal species, leading to some errors in species estimations. Despite its limitations, ITS-based studies have made outstanding contributions for our understanding of fungal diversity and ecology, as they allow for the detection of fungi in various substrates (such as soil, plants, etc.). Major ITS-related discoveries include the realization of how hyper diverse some fungal communities are or the wide disconnect between what is found fruiting in a forest and which species dominate underground- the species that dominate in a given forest soil are not the abundant fruiting ones, indicating mushroom-based fungal inventories are not sufficient to describe fungal communities.

Although the sequencing mode traditionally used to compile ITS sequences (called Sanger sequencing) produced important ground breaking results, it is a slow, expensive and lowthroughput process. One of its most serious limitations is the fact that it works best when species are not mixed together. This means it is very adequate for sequencing ITS from fruit bodies, pure cultures, and even individual ectomycorrhizal root tips (plant roots covered by symbiotic fungal tissue), but not as suitable when samples include multiple species (soil being an obvious example). Although there are ways to separate the species in these mixed samples, they add time and cost to the process and are not always very effective.

The very recent development of next generation sequencing (NGS) came to solve some of these problems. NGS is a high-throughput approach that generates thousands to millions of sequences at low cost. There are many applications of NGS, such as sequencing complete genomes; however it can also be applied for target DNA regions like ITS. Other than the very high sequence numbers produced, NGS has the advantage that it can handle mixed samples, making it possible to directly determine which species are present in samples collected directly from the environment. This is particularly relevant for fungal diversity studies - we can now easily assess fungi living in forest soil, inside a plant, or in the moldy bread on our counter. Furthermore, because the final number of sequences is so high, it is possible to process many more samples in a given study.

Obtaining and making sense out of ITS sequences generated by NGS implies several steps, both at the lab bench and at the computer desk. DNA has to be extracted from the cells and the ITS region amplified by Polymerase Chain Reaction (PCR, a process that generates many copies of a target region) for each sample separately. This step adds specific barcodes to the different samples. This is important later on to distinguish which species came from each sample. The PCR products from each sample are then cleaned, combined and read by a NGS machine. The result is a big computer file with hundreds of thousands to millions of sequences. The sequences are then separated by sample (using the barcode mentioned above) and compared to a sequence database with the goal of identifying the detected fungi. Finally, fungal species lists are compiled and analyzed.

Although very promising, as with any other technology, NGS is not perfect. The most relevant detail associated with compiling a very large numbers of sequences is that any sequencing mistake will be present in much bigger numbers. There are ways to avoid sequencing error, for example to use error correction tools that compare and group sequences that are very similar or to discard sequences found only once, as it is difficult to distinguish between truly rare species and sequencing errors. Furthermore, NGS analysis is an area of active research and improvements are being made every day.

Recent studies using this technology address topics such as the global distribution of ectomycorrhizal fungi, spore dispersal ability at a local scale, or which species inhabit indoor air. Most of the coming research in fungal diversity is going the NGS way and the reality is that gathering data is no longer the limiting factor for understanding fungi. This is very good news and the near future will certainly bring many more breakthroughs. Fungi will probably always be elusive, but we now have tools that enable a much better understanding of these diverse and cryptic organisms.

Mycena

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Contributors: Dr. Bill Freedman Patricia George Curt Haney Seth Peterson

Editing and Layout: Brother Mark Folger

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

To subscribe, renew, or make address changes, please contact Nathan Heilman: Membership@MSSF.org or (415) 320-4237.

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

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President: Curt Haney (415) 333-8820 President@MSSF.org

Vice-President: David Gardella 602-617-0150

VicePresident@MSSF.org

Secretary: Donald Hughes 510-919-8866 Secretary@MSSF.org

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MycoDigest continued

Further readings:

- Amend, A.S., K.A. Seifert, R. Samson, T.D. Bruns (2010) Indoor Fungal Assemblages are Geographically Patterned and More Diverse in Temperate Zones than the Tropics. Proceedings of the National Academy of Sciences of the USA 107(31): 13748-13753.
- Peay K.G., Schubert M.G., Nguyen N.H., Bruns T.D. (2012). Measuring ectomycorrhizal dispersal: macroecological patterns driven by microscopic propagules. Molecular Ecology 21: 4122-4136
- -Zimmerman, N. B., Vitousek, P. 2012. Fungal endophyte communities reflect environmental structuring across a Hawaiian land-scape. Proceedings of the National Academy of Sciences of the USA 109(32): 13022-13027



About the Author:

Sara Branco is an evolutionary biologist interested in fungal evolution. Sara has conducted several studies focusing fungal diversity and adaptation and is currently a postdoctoral researcher with Tom Bruns and John Taylor at the University of California, Berkeley, studying populations and communities of ectomycorrhizal fungi associated with North American pine forests. sbranco@berkeley.edu

THE GREENING OF THE MSSF

The MSSF council is striving to make our society the first "green" non-profit mycological society in the world. Or, at least, in the United States, or California. There are certain areas within the society that we can work on to make this a reality.

Each month, the MSSF prints and mails nearly 300 Mycena News newsletters. This takes trees out of circulation and can also affect mushrooms in the process. We are encouraging all members to convert to an e-membership and receive the Mycena News electronically.

Here is what you as an individual can do to help make the MSSF a greener society:

- Convert your membership to an e-member and start receiving the Mycena News electronically. This reduces the operating cost to print and mail newsletters and saves the members money in the future.
- Use the MSSF website and on-line calendar for up-to-date information and future announcements, which helps reduce paper usage.
- Join the MSSF Yahoo Group, and get up-to-date information on local and long distance foraging reports plus current and future fungi related special events without having to wait for a piece of paper to tell you about what already happened.
- Practice and advocate low impact foraging methods, which leads to sustainable mushrooming.
- Use the MSSF website rideshare program or the MSSF Yahoo Group to organize carpooling to forays and other regularly scheduled and special MSSF events.

Benefits to going "green":

- Reduces your paper clutter.
- Access current and past newsletters anytime, from any computer or mobile device.
- Better for you, better for the environment.

Contact the current membership chair, Nathan Heilman at: Membership@MSSF.org to sign up for paperless newsletters!

Culinary Corner continued

tered water to about an inch above the mushrooms and bring to a low simmer. Cover and cook for 1 hour. Strain off the liquid and squeeze mushrooms to remove as much of the liquid as possible. No need to filter; the white sediment is spores which may contain flavor. Add the liquid back to the pan and again simmer at a very low temperature, uncovered, until is reduces to one third. Add this liquid to the alcohol infusion. Store in a dark container to protect its flavor. Use to flavor custards, etc.

OK, OK...here's an interesting recipe for a dessert...

CANDY CAP PERSIMMON FLAN

1 cup and ½ cup sugar

6 large eggs

1 14-oz. can of sweetened condensed milk

1 13-oz. can evaporated milk

1 teaspoon vanilla

1/4 oz. dried candy caps

1 medium Guajillo chile

Pulp from one large very soft Hachiya persimmon

Preheat oven to 325 degrees. You will need 6 ramekins or other flan cookware and a large baking pan to put them in.

Pour 1 cup of sugar into a warm pan over medium heat. Constantly stir sugar until it browns and becomes caramel.

Quickly pour about 2 to 3 tablespoons of caramel into each ramekin, tilting it to swirl the caramel around the sides. Reheat caramel if it starts to harden.

Grind the mushrooms and chile together in a coffee grinder or food processor to a fine powder.

With powdered chile and mushrooms in a bowl with a mixer or with a whisk, blend the eggs together. Mix in the milks and the persimmon pulp then slowly mix in the ½ cup of sugar, then the vanilla. Blend smooth after each ingredient is added. You can use an immersion blender to make sure the persimmon pulp is well masticated.

Pour the custard into the caramel lined ramekins or one large mold. Place in a large glass or ceramic baking dish or large sheet pan and fill with about 1 to 2 inches of hot water.

Bake for 30 to 45 minutes in the water bath and check with a knife just to the side of the center. If the knife

Candy Caps are used to flavor cheesecake and a sauce or glaze to go over it. Best cheesecake I've ever eaten.

The Culinary Group's January dinner was a great way to start the New Year. We started with a Southern Comfort punch made by **Honoria Sarmento** to accompany the appetizers, most made with mushrooms, brought by members. Then on to **George Collier's** perfectly cooked pork roast with a luscious sauce of black trumpet and porcini mushrooms, bacon and currants. That sauce had more black trumpets in it than I usually find in a whole season. **Jeanette Larsen** contributed a rich and creamy puree of cauliflower and potatoes. **Lisa Bacon** made a refreshing, citrusy green salad with pomegranate and apple. For dessert we had a luxurious Frangelico chocolate torte made by the talented **Stephanie Wright**. We are so very fortunate to have such inventive and capable volunteer cooks for our repasts.

For the February dinner, the menu will be American, kind of a Blue Plate Special but with an orientation toward mushrooms—not at all like your neighborhood café. Most courses will be vegetarian. For details, go to the MSSF website and, later, the MSSF online forum.

Fungus Fair Thank You

J.R. Blair

My apologies for not getting this in the January newsletter as I usually do. My fault, not our esteemed editor. This is what I wrote just past the deadline...

Once again, thanks to our many excellent volunteers, the 43rd annual MSSF Fungus Fair was a great success. We ended up with about 2350 total paid attendees for the weekend, significantly more than any other Fungus Fair at the Lawrence Hall of Science.

Thank you to all the volunteers who distributed the fair posters. Speaking of which, many thanks to **Lucy Martin** for our poster art (9 Edibles) and to **Lou Prestia** for coordinating the designing our T-shirts and having them printed.

Special thanks goes to **Alice Sunshine** for spearheading our efforts to get the word out in the media. Thanks go to **Norm Andresen** for coordinating forays; to **Bill Freedman**, **Chris Schoenstein**, **Mino de Angelis**, and **Wade Leschyn** for leading forays (I may have missed some of you in this category – my apologies); and to all the folks that helped bring mushrooms to the Fair, whether on an organized foray or on their own. We are perennially grateful to **Jim Miller**, our duff czar, for bringing in bags of oak leaves and pine needles.

Many thanks to **Dennis Desjardin**, **Mike Wood**, **Fred Stevens**, **Tom Bruns**, **Else Vellinga**, **Dimitar Bojantchev**, **Norm Andresen**, and everyone else who helped with the sorting and identification process as well as all of the volunteers who set up the specimen tables, staffed those tables throughout the weekend, and worked the mushroom identification table for the public.

Tremendous thanks go to **Al Carvaja**l and his team and **George and Jane Collier** for feeding the volunteers Friday night and all weekend. We are indebted to **David Eichorn** for organizing the soup sales and to those of you who made the many delicious soups (this is our biggest money-maker – thank you all!).

We thank **David Campbell**, **Kevin Sadlier** and **Ken Litchfield** for entertaining the public with their cooking expertise. In addition, **Dorothy Beebee**'s dyeing demonstration was a big hit. Thanks to everyone who helped with the Book, T-shirt and Gourmet Table sales headed by **Kevin Sadlier** and **Lisa Gorman** respectively.

Our esteemed Treasurer, **Henry Shaw** deserves thanks for dealing with the treasury throughout the weekend.

Thanks go to **George Willis** for his expert coordination of all the vendors for the fair and to the vendors themselves for providing excellent mushroom related items for sale.

We had an excellent suite of speakers: Philip Ross, Curt Haney, Else Vellinga, Ken Litchfield, Alan Rockefeller, and J.R. Blair.

Many thanks go to **Ginny Garrett** and her helpers for building and staffing the woodland display, a keystone of our event.

Special thanks to all of the specialty tables and all the folks who made them such popular rivals to all the other wonderful attractions at the fair. At Beginning ID, Paul Koski, Brennan Wenck and Paul Nagano provided an excellent introduction to the world of mushrooms. The Toxicology, Ecology and Culinary/Edible Mushroom tables were expertly organized and staffed by Jane Wardzinska, Chris Thayer and Bill and Carol Hellums respectively. Thanks to the members of the California Lichen Society, Sonoma Mycological Association, and Radical Mycology members for their informative and interactive tables. Thanks goes to Alan Rockefeller at the Psychoactive table for his reliable and authoritative presentation on a popular topic. Thanks to Mo-Mei Chen and her helpers for her wonderful display of Medicinal Mushrooms. And for an excellent display on cultivation. Thanks go to Ken Litchfield and his acolytes from Merritt College and beyond for setting up and selling mushroom kits.

Perhaps the most popular place in the Fair was the Family Center. **Karen Rusiniak** along with **Don Hughes** and **Annie Blair** did a fantastic job putting together fun and interesting projects for the many kids that came to the Hall for the weekend. Thank you to those of you who helped break down the Fair. We were completely broken down, cleaned up and out of there by 6:15, surely a record effort! I am particularly grateful to **Mino de Angelis** for the use of his truck to move the heavy stuff from the storage unit and back. Very special thanks go to the hard working Lawrence Hall of Science staff, without whom the Fair would be a diamond in the rough, particularly **Emma Duran-Forbes** and **Sue Guevara**, as well as everyone else who helped out or simply tolerated us.

Finally, I want to express my deepest thanks to two people without whom I could not have done this: **Stephanie Wright** for being the best volunteer coordinator one could hope for and for prodding me when I most needed it; and to **Annie Blair**, for being there.

We had over 200 volunteers for the weekend and you all deserve thanks, even if I did not list your name here. We depend upon you immensely. Look for an invitation to the Volunteer Appreciation Party later in the spring.

DUES INCREASE & CHANGES

Since its formation in 1950, the Mycological Society of San Francisco has tried to keep the cost of membership affordable. Over the years there has been pressure to raise the membership dues as the MSSF has grown. The cost of printing and mailing this newsletter has continued to increase annually, and the cost of postage is increasing again this month. The monthly printing and mailing of nearly 300 copies of the Mycena News accounts for almost 30% of our annual expenses.

In an effort to reduce costs, become a greener society and eventually a paperless organization, the council has approved the increase of membership rates for new and renewing members who request to receive the printed version of the Mycena News. (Remember, you can save yourself and the MSSF money by receiving your newsletter on-line!)

To achieve our future financial goals the following changes will be made:

- The elimination of all options for multi-year print memberships.
- The elimination of the Full-Time student membership category and all multi-year and print options for present and future student renewals.
- The elimination of all future life memberships that include print options.
- All future honorary (free) memberships will be "electronic" memberships.

Dues will only increase for those members who wish to continue receiving the printed version of the Mycena News. All other members' dues will remain the same or decrease. Here are the new plans and fees:

Adult/Family Memberships:

•	1-yr	\$20
•	1-yr with printed newsletter option	\$40
	2-yr	
•	3-yr	\$50
•	5-yr	\$83
•	Life	\$350

Senior/Family Memberships (65 & over)

•	1-yr	\$15
•	1-yr with printed newsletter option	\$35
	2-yr	
•	3-yr	
•	5-yr	
•	Life	\$200

All current memberships will remain unchanged until time of renewal. We encourage ALL current members who receive the printed version of the Mycena News to consider changing their membership status to "ELECTRONIC" if at all possible. Contact Nathan Heilman at: Membership@MSSF.org to switch now!

We hope you will continue to be a member and grow with us. Spores!

MSSF Scholarship Extended

The Mycological Society of San Francisco offers scholarships to full time graduate students majoring in mycology and attending colleges and universities in northern California. These scholarships vary in amount from \$500 to \$1,500 and are given in the name of Esther Colton Whited and Dr. Harry Thiers. All research proposals are welcomed, but special consideration will be given to taxonomic studies of the higher fungi of the Pacific States.

Requirements include two letters of recommendation, one from a professional mycologist, a brief statement describing the research project, and agreement to present the results at a general meeting of the MSSF.

Send inquiries/materials to: J.R. Blair at 895 Sierra St., Moss Beach, CA 94038; e-mail: jrblair@mssf.org.

The new deadline for applications is March 1.

Mycological Society of San Francisco c/o The Randall Museum 199 Museum Way San Francisco, CA 94114 First Class Mail U.S. Postage PAID Oakland, CA Permit No. 1451



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MSSF Calendar February

Monday, February 4, 7 p.m. - Culinary Group Dinner S. F. County Fair Bldg, Golden Gate Pk, 9th & Lincoln, S.F. "Blue Plate Special" -- Mushroom loaf, truffle mashed potatoes, mixed vegetables, chanterelle soup, salad, candy cap cupcakes and mint julip punch. Bring your tableware and a beverage. The SFCFB does not provide dishes, etc. The next dinner is March 4.

Tuesday, February 12, 7 p.m. - MSSF Council Meeting

Sunday, February 17, 10 a.m. Quick Start Foray John McLaren Park, Mansell & John Shelley Dr, SF Meet at the Jerry Garcia Amphitheater parking lot. Contact Paul Koski at pkoski04@yahoo.com or 415-990-5358

Tuesday, February 19, 7 p.m. - MSSF General Meeting Randall Museum, 199 Museum Way, San Francisco. 7 p.m. - Mushroom identification and refreshments. 8 p.m. - Speaker: Alan Rockefeller

Tuesday, March 12, 7 p.m. - MSSF Council Meeting

Tuesday, March 19, 7 p.m. - MSSF General Meeting Randall Museum, 199 Museum Way, San Francisco.

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

Announcements

FFSC Albion III Foray, Mendocino Coast February 1 – 3

The Fungus Federation of Santa Cruz is conducting this weekend foray. A \$55 per person deposit is required. This fee covers lodging, facility fee and use of the meeting hall and kitchen. Final cost is based on how many people attend but is not likely to exceed \$60 for the weekend. Unless cancellation is made well in advance, the deposit is non-refundable.

For more information, go to http://fungusfed.org/

To reserve a space, contact Bill White, Minister of Long Distance Forays at ldfm@fungusfed.org

SOMA Wild Mushroom Foray February 23

The Sonoma County Mycological Society is conducting a field trip to collect wild mushrooms. SOMA Forays provide a great opportunity to get out in the woods in a friendly atmosphere to learn the ins and outs of identifying and collecting mushrooms. Their forays are always open to the public, and they welcome all ages, experience levels, and interests.

When & Where: 10:00 a.m., Woodside Campground, Salt Point State Park.

Get more information at: http://www.somamushrooms.org

The submission deadline for the March 2013 issue of Mycena News is February 15th. Send all articles, calendar items and other information to: mycenanews@mssf.org.