



**Speaker for  
March 16th  
MSSF  
Meeting**

**Dr. Donald Kowalski**  
California Slime Molds

Dr. Donald Kowalski is a retired professor Emeritus in the Biological Sciences Department at the California State University in Chico, CA. He received his Ph.D. from the University of Michigan, studied under Harry Thiers, and is considered a slime mold expert. Have you ever wondered exactly what slime molds are, or if they are actually considered fungi? Dr. Kowalski will give a colorful presentation on the introductory biology, life cycle, taxonomy and distribution of slime molds, with particular emphasis on the slime molds of California.



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# Mycena News

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## MycDigest

*MycDigest is a section of the Mycena News dedicated to the scientific review of recent Mycological Information*

## Fungal Taxonomy III: The Euagarics

by Peter Werner (pgwerner@sfsu.edu)

In my last two articles, I've discussed how our ideas about the relationships between fungi are being radically revised based upon advances in molecular biology and computer-aided phylogenetic analysis. So far, I've discussed discoveries in the taxonomy of "lower" fungi, as well as in ascomycetes, russulales, boletales, and other groups. I now want to focus on the taxonomy of the euagarics, that is, the group that the majority of gilled mushrooms fall into. As I mentioned in my previous article, current evidence infers that the agaric-forming fungi evolved at least three times independently. Lentinoid agarics like *Lentinus edodes* (the shitake) represent an independent evolution of agarics from polypores and similarly, the Russulaceae represent an independent evolution of agarics from woody resupinate fungi. Several families of agarics, the Paxillaceae and the Gomphideaceae, are closer to boletes than they are to other agarics. However, it's not yet clear whether both groups share an agaric ancestor and boletes are a derived condition, or whether agarics in the bolete clade evolved independently from boletoid ancestors. The majority of agarics belong to the euagaric group and share common descent from a single ancestor. The relationships within this group have begun to be examined over the last decade with some rather surprising results. Recently, a group of some 14 mycologists fronted by Jean-Marc Moncalvo carried out a molecular analysis of about 700 species of euagarics to reveal which groups these species would congregate into. This analysis revealed 117 "clades" (distinct monophyletic groups) of euagarics. While further research will undoubtedly reveal affinities between clades that were not revealed in this analysis, it is quite clear that many of these 117 clades have as strong a claim to being "families" as the traditional Singerian families. The division of the euagarics into 11 families clearly does not begin to adequately describe the complex of evolutionary relationships within the euagarics.

In the past, spore color was treated as a characteristic of fundamental importance in defining agaric families. However, a pattern that clearly emerges from Moncalvo's study and other molecular studies is that, although spore color is somewhat conserved within euagaric clades, in the overall evolution of agarics, spore color has shifted frequently, hence, its use as a method of dividing the agarics into fundamental groups is not warranted.

The last several "generations" of amateur and professional mycologists have been thoroughly schooled in the Singerian scheme of classifying agarics, and some of the

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new classifications that are emerging may seem confounding at first, however, in most cases these groupings do make sense in the light of the shared morphologies between members of these taxa.

Take, for example, our newly expanded concept of the Agaricaceae. The Moncalvo study (as well as several prior independent molecular studies) have revealed a strong affinity between *Agaricus* and the Lepiotaceae, and even hinted that *Agaricus* is simply a specialized dark-spored group of within the macrolepiotas. Additionally, *Coprinus comatus* and its close relatives have recently been found not to be closely related to the other coprinoid fungi (which have now been consigned to the genera *Coprinellus* and *Coprinopsis*), instead falling within the expanded Agaricaceae. Most surprisingly, the Lycoperdaceae (the puffballs) have been found to be related to the previously-mentioned taxa as well, and hence constitute a highly-specialized gastroid line within the Agaricaceae.

As for the remaining coprinoid agarics, molecular studies have confirmed the affinity between several genera that had constituted the former Coprinaceae. *Coprinellus*, *Coprinopsis*, and *Psathyrella* are clearly related and are now referred to as the family Psathyrellaceae. *Panaeolus*, however, was found not to be closely related to this group, and instead was found to be very close to *Bolbitinus* and *Conocybe*, forming the basis for a redefined Bolbitaceae. The status of the remaining bolbitoid genus, *Agrocybe*, is uncertain – it seems to form its own separate clade, which may or may not be close the Bolbitaceae.

Moncalvo's study has also found that the Strophariaceae seem to fall into several distinct clades that may or may not be closely related. One clade contains the core stropharioid fungi, including *Stropharia*, *Hypholoma*, most *Pholiota*, and the bluing *Psilocybe*. Another clade contains the non-bluing *Psilocybe*, *Melanotus*, and *Kuehneromyces*. If further study confirms that the non-bluing and bluing *Psilocybe* are, in fact, not directly related, it will be split into two genera, with the genus name *Psilocybe* probably going to the non-bluing species, as the type species for *Psilocybe* is apparently *Psilocybe montana*. (Since chemical names don't change with biological nomenclature, a defining character of *Psilocybe* would then be its lack of psilocybin.) There are also several subgenera of *Pholiota*, plus several of species of *Stropharia* and *Hypholoma*,

that fall outside of these clades entirely and their relationship to the other stropharioid agarics is uncertain.

A close relationship has also been demonstrated between *Pluteus* and the Amanitaceae, which forms the basis for a newly-expanded Pluteaceae. Oddly, *Volvariella*, an agaric with clear morphological affinities to both *Pluteus* and *Amanita*, was found in the Moncalvo study not to fall into the same clade as these genera, and that in fact, its relationship is quite distant. This provides a case where the molecular and morphological evidence seem to be in conflict and further study is clearly necessary.

Studies on the Hygrophoraceae are contradictory, with the Moncalvo study suggesting that the Hygrophoraceae as con-

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## Presidents Message

In January the MSSF received an LCD projector from Bill and Louise Freedman. This is an item that the MSSF needed to have for our speakers to use when they lecture at the general meetings. We are all grateful for this generous gift; however this is only a small part of what Bill and Louise have given us over the years since they joined in 1968. Following are some of the other contributions they have made to the MSSF:

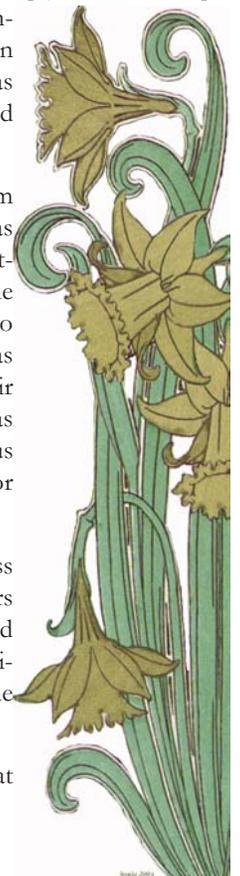
Bill was president of the society in 1977. He has worked hard to put together the toxicology and ecology exhibits for our annual fungus fairs. I was around when Bill was working on the Amanita warning poster so I remember what a time consuming job it was to get everything correct. Bill has always kept us informed about recent mushroom poisonings in our area. As a retired medical doctor, Bill has worked to keep people in the medical field educated about mushroom toxins as well.

Louise is well known for writing the mushroom cookbook "Wild about Mushrooms." She has been involved in the culinary aspect of collecting mushrooms for many years. Louise was the first to push for and bring a culinary display to one of the Fungus Fairs. Over the years she has been the artist for many of the Fungus Fair posters. For as long as I can remember she has put together a children's area at the Fungus Fairs where children can draw mushrooms or mold them out of clay.

Together Bill and Louise have led countless forays to educate both the public and members of the MSSF about mushrooms. They still lead several forays every year. For their many contributions, Bill and Louise were made lifetime honorary members of the MSSF in 1992.

Thank you, Bill and Louise for your great generosity to the MSSF over the years.

Mark Lockaby



### Society Officers

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# The CANDY CAP COMPLEX

By David Campbell

“Sweet!” (slap) “Bitter!” (slap) “Sweet!” (slap) “Bitter?” (slap) “Sweet?” (whap)... I must be dreaming. It seems like Chinatown. Nicholson’s got her pinned against a log, a real sour, or is that bitter, look on his face; he’s really working her over. I can’t quite see who it is, I think it’s a her, the full brim of her hat obscures my view, but he’s sure hell-bent on whuppin’ the truth out of her. “Sweet! Bitter! Bittersweet! I don’t know! But a lotta people love me!” she’s blubbing, the now tattered brim of her cap suddenly turned upwards, revealing... gills!? Yes, exquisite quasi-decurrent delicately pastel cinnamon-pink gills, my god she’s lovely, her lamellae oozing misty white latex, the shade of almost melted snow, and that perfume! She’s the real thing, all right. I catch a waft, I know it from a previous life. It’s an alluring, seductive scent, designed to capture a man’s soul, maybe sink his ships...”Stop! Stop”, I shout. “She’s too brittle to be handled that way!” I could feel myself waking up. Besides, I had to get her out of my mind, I couldn’t stop thinking about what a dish she’d make... “Damn”, I mutter, shaking mushroom dream fragments from my own rather tomentose pileal-cranium, “I always like to think we get stuff sorted out in our dreams. That was more like ...real life...”

So it goes with our beloved Candy Caps. Their rich and exotic flavor elements are legendary, shining through as a fresh ingredient in savory dishes, and, when dried, their pseudo-sweet maple tones can simply amaze in desserts. And yet, there remains a persistence of isolated reports of mentionable bitterness encountered from various culinary efforts involving Candy Caps, or should I say alleged Candy Caps? At the very least, I would say, the Candy Cap complex.

More than one species qualifies as a Candy Cap. In the conifer and oak woodlands of rainy Northern California, we primarily encounter *Lactarius rubidus*, listed in many currently available reference books as *Lactarius fragilis* var. *rubidus*. *Lactarius fragilis* is the “original” Candy Cap, with a reportedly more pronounced maple aroma when fresh than *L. rubidus*. *L. fragilis* is common to the Southeastern US. The Rufous Candy Cap, *Lactarius rufulus*, is often more prevalent in the presence of oak, especially in the drier southern climates of California. It tends to run a little larger than *L. rubidus*, with a less pronounced maple aroma, sometimes slightly acrid taste, and is less likely to have a hollow stem. *L. camphoratus* is reported from the mixed forests of the Northeastern US, with a slightly ruddier complexion and frequently umbonate cap. It possesses more of a curry-powder scent when dried than the maple suggestions of the other Candy Caps, and may ultimately not really belong on the “candy” list. All of these species exude watery-white unchanging latex, unless of course they are not exuding at all at the time of inspection, in which case they are probably beginning to desiccate, which typically amplifies their key identifying aroma(s). All are mild when tasted raw. All have non-viscid, dull, non-zonate pileal surfaces. All are edible.

So, this may all seem somewhere between simple and obvious to the would-be knowledgeable, now maybe salivating, neophyte mycophagist; let’s cook ‘em up and chow ‘em down, they may say. Well, not so fast. There is this small matter of Candy Cap look-alikes. Over the years, I’ve had occasion to extricate a sobering spectrum of

fungal imposters from so-called Candy Cap collections. Many of my fellow foray leader types could tell similar tales, that on disturbingly numerous occasions, they’ve found cute little poisonous and/or foul-tasting look-alikes blithely floating around with the real comestibles in collection baskets of proud “newbie” collectors. Typically, the less myco-sophistication the misguided picker possesses, the more insidious the Candy Cap identification error is capable of being.

*Galerina autumnalis*, the deadly amatoxin producing species, doesn’t look all that much like a Candy Cap, unless of course you don’t really know what you’re doing. Nonetheless, this is a known species of confusion for inexperienced collectors, probably because of the proximity of shared habitat by the two species, and of course, they are both technically LBMs (little brown mushrooms). *Galerina* grows on dead wood; the mycorrhizal *L. rubidus* typically is found in duff. However, we have had occasion to witness Candy Caps growing on moss and duff covered fallen logs, intermixed with *Galerina autumnalis* growing on the same dead log! The *Galerina* has a smooth viscid cap surface, rusty-brown spore color, and an annulus, all features very unlike the dry cap, whitish spores and absentee annulus of the Candy Cap. Most readily distinguishing of all, however, is the difference between the cellular natures of their fungal flesh. Unlike the inherently brittle/granular tissue context of the Candy Cap’s family, *Russulaceae*, the *Galerina* and several other alleged look-alikes outside of the *Russula* family, including species of *Clitocybe*, *Collybia* and *Cortinarius* genera, are composed of longitudinally filamentous fungal tissue. If you apply pressure in opposite directions to their stalks, they tend to bend rather than snap clean as does the chalk-like composition of a *Lactarius* stalk. For that reason, I recommend collecting Candy Caps with thumb and fingers only, put the knife away. The process of snapping each stipe in order to discard the duff debris adhering to the base of the stalks, also acts to verify the mushroom’s familial identification, thereby eliminating inadvertent collection of any nasty tough-stemmed genera, such as those mentioned above.

So, if it’s brittle and has latex, it’s a *Lactarius*. Mind you, they can sometimes be stubborn and refuse to lactate. That’s a problem one just has to work around, when encountered. As always, when in doubt, throw it out.

A primary technique for *Lactarius* identification is observation of the latex color, both at the moment of exposure and also after possible changes to the latex color as a result of exposure. Breaking, cutting or bruising the *Lactarius* flesh typically releases its latex for view. Candy Caps have thin white latex, like watered down non-fat milk, that does not change color after exposure. If the latex viewed reminds you of whole milk or cream, or if the latex turns to yellow after exposure, or stains paper yellow overnight, the mushroom is not a Candy Cap.

Candy Caps run in pleasing cinnamon/burnt orange colors, with minor variations in hue and tone to be expected from age or environmental factors. Color does not resolutely distinguish them from other *Lactarius* species, but their coloration and odor, combined with their watery latex and the minutely wrinkled or bumpy “dry” cap surface is almost all you need to know for identification, once you have been properly introduced. Candy Caps are never glossy, shiny, viscid, subviscid or sticky. The eye readily discerns this cap surface distinction, unless the mushrooms are wet, in which case the speci-

## Candy Caps Continued from page 3

mens may need some dry air to reveal their true nature. Most people do not perceive the famous maple aroma in fresh specimens, but rather a distinctive, mild pungent fragrance.

Let's discuss a few of the usual and potential Western US imposters, and their various departures from the desired identifying macroscopic features of the "true" Candy Cap.

*Lactarius xanthogalactus* is a very common mis-collection here in Northern California, probably because it is quite common and frequently in co-habitation with Candy Caps. It's cap is of the wrong color, more grayish-orange and zonate than the richer toned and more evenly colored *L. rubidus*. Its lactose turns rapidly yellow. Its taste can be somewhat bitter or acrid, and it is considered poisonous. *Lactarius rufus* is darker, more brick red than *L. rubidus*. It has white unchanging latex that stains white paper yellow. It has a prohibitively strong acrid taste and is considered poisonous. *Lactarius subviscidus* is viscid when wet, with a brownish orange to reddish brown hue, possessing scanty white latex, and a mild to slightly acrid taste. *Lactarius subflammeus* is reddish-brown, paler towards the cap margin, moist to subviscid, has white unchanging latex and a slowly developing acrid taste. *Lactarius luculentus* has two varieties, *luculentus* and *laetus*. The cap of *L. luculentus v. luculentus* is shaded towards a more ochraceous coloration. It has buff colored spores and acrid taste. *L. luculentus v. laetus* is more typically "candy" colored at the cap, has a mild taste and white spores. Both varieties have white unchanging latex and viscid/subviscid cap surfaces. The smallish *L. theirsii* (!) has a smooth dry cap surface becoming rimose with maturity, no distinct odor or taste, and thin white unchanging latex. *L. desjardinii* (!) has white unchanging latex, a paler orange-gray hue to the viscid to subviscid cap, and acrid taste. *L. cocoseolens* has a viscid cap with a gray or brownish orange hue, thin white unchanging latex that slowly stains the exposed flesh context yellow, and odor of coconut when dried.

Having sorted this sordid mess, the beleaguered mycophagist is now ready to finally indulge in some sweet, sweet dining, but for one small detail. It seems that in real life, Candy Caps, too, are sometimes bitter, or at least, so I have been told. Personally, I have not much had that problem, having consumed copious quantities over the years, except once when I got a nothing-subtle-about-this-bitterness mushroom in my mouth. That was many years ago, with others helping to collect the mushrooms, so an error in identification, as we have discussed, was hardly out of the question. Nonetheless, I can't disregard all the reports, too many people whose opinions I respect have assured me that bitterness does indeed sometimes emanate, to a fault, from Candy Cap preparations. Re-reading David Arora's comments in Mushrooms Demystified, I note that their fresh taste is described as "mild or slightly bitter".

So, Candy Caps are sweet, without any sugar, of course, but they are bitter, sometimes. And people do love to eat them. Dried Candy Caps seem to have reached a cult status as a secret, or not so secret, dessert ingredient. Prepared fresh, they can be delectably memorable, with a rich spice effect manifesting after the "maple" cooks off in the sauté pan. The perplexing issue of "why the occasional bitterness?" remains inexplicable at present, apparently requiring further observation and some dedicated gustatorial research. We could always conjecture that poor quality specimens or poor handling, aside from misidentification by the collector, could be a factor.

Bitterness components might be environmentally induced. Or, some Candy Cap "communities" may simply have the genetic proclivity for bitterness. Who knows? Certainly, some people are more sensitive to bitterness than others, and may find repulsive what other mycophagists regard as a charming background flavor note. Fortunately for me, I think I may have mostly burned my bitter taste buds out a long time ago, so these cute little mushrooms always taste great to me. Bon appetit.



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ceived in the Singerian system is a clear monophyletic clade, and other studies suggesting that the *Hygrocybe* is not directly related to the rest of the hygrophoroid fungi, but that a monophyletic clade is formed by *Hygrocybe*, *Omphalina*, perhaps *Xeromphalina*, and the remaining hygrophoroid agarics.

The Entolomataceae seem to be an exception to the above pattern, in that it actually holds together as a distinct group centered on its traditionally-defined genera without substantial revision. As would be expected, the Tricholomataceae and the Cortinariaceae do not hold together at all – these have always clearly been "wastebasket taxa"; a catch-all for all white- and rusty-brown-spored agarics that couldn't be placed in any other family. The majority of the 100+ clades of agarics found in the Moncalvo study are segregates from these two families. These family names will be retained, but only in much more limited sense for fungi that are closely related to *Tricholoma* and *Cortinarius*, respectively. Reclassification of some of these segregates has already been established by prior morphological work, and several of these even have "family" names that are increasingly coming into use, for example, the Pleurotaceae (*Pleurotus* and *Hobenububelia*), the Marasmiaceae (*Marasmius*, *Tetrapyrgos*, and allies), and the Crepidotaceae (*Crepidotus*, *Simocybe*, and allies).

As we've seen over the course of the last three articles on this topic, molecular biology is reshaping our understanding of relationships between the fungi at all levels, from phyla down to species. I'm often asked why we should accept such revisions, especially where they contradict established morphological classifications. My answer is that its best to accept any classification system, new or old, only in a provisional way. It should be pointed out that many of our "well-established" morphological classifications really aren't that well-established at all, and that molecular studies give us much-needed additional data to use in our classification systems. A system of

# The Foragers' Report

March 2004

by  
Patrick Hamilton

We choose to live in an area that regularly produces not only a worry-free world class climate but also a wonderfully long mushroom season, full of fine edibles. Each year we know that most of our inclement weather will come mid- to late-November, then rain off and on through maybe late April. And each year we all know that certain mushrooms will fruit at somewhat definite times during that precipitation period. Right?

But often we get doubts like: "Isn't it kind of late (Feb. 16) for black chanterelles. . .?" Or, "Jeez, the boletes haven't popped yet and here it is the morning of the tenth day after that first half inch rain." And, "I don't think that yellow feet will show this late. . . ." How about, "If the tassels of the black oaks are the size of mouse ears how come the morels haven't fruited. Will they even?"

So it goes with a lot of us anxious types. We tend to segment every season into rather precise fruiting periods with their attendant clues (see the mouse ears and 1/2" of rain references above). And we choose to agonize over these times of "supposed to be here now but are not, yet"—maybe because it is a form of harmlessly depressing entertainment.

A close mushroom hunting buddy- seen often with me in the woods, and whose life otherwise runs rather smoothly and successfully- loves to discourage himself throughout the fungal year thinking this or that might not be up when he can go or there won't be enough for satisfying his pantry, or that I will maybe get more morels (boletes, blacks, etc.) than he.

It's like the attraction to sports for a lot of fans (comes from the word "fanatic"). They can appear to live and die over reading their teams results in the sports pages but it doesn't mean a thing in (most) of their real worlds, really. It is a way to wholly embrace something with passion and then just as quickly let go of that fervent attachment. A free emotional roller coaster with no lasting downhills. Similar to my dear friend's angst about if the mushrooms will fruit on time, etc.

What was that line of Edgar Allan Poe's on tormenting oneself? "This unfathomable longing of the soul to vex itself, to offer wrong for wrong sake's only. . . ." Because a master of weird short stories wrote it, it sounds rather heavy, and mind games can matter and, most importantly, he wasn't writing about mushroom seasons.

So we all know that no matter how much we fret over the when and the how many and where of our favorite fungi, because we live in this great mushroom area, every year they will come up and in ample quantities for all. Right? Hmm, maybe not.

This current late winter could become one to worry us for real. We might truly be in store for a not too good finish to our local mushroom season. Word from the commercial picker world is that they are not seeing many young black chanterelles in Mendocino county. They did fruit in our area last year deep into June, even until July north of us, and the season did start late, but lots of small tubes were spotted by early February in the woods of northern Sonoma and southern Mendocino counties.

This season there are definitely not many "buttons" being seen anywhere by the circuit guys. These folks go out early to see how the season will look. Raleigh, a particularly good picker and friend to some MSSF members, spent three days camping and hiking, check-

ing things out, in the deep woods this week but came back into Willits earlier than planned. In a good year, mid-season he could have had well over a hundred pounds. This early season he picked only four pounds and saw very, very few tubes.

Today's horizontal rain does seem to be one to awaken those tasty little trumpets though. . . . " (Can baby *C. cornucopioides* be called buttons?)

We saw that the local hedgehog season never actually occurred—nor has it for several years. What has happened to those toothy little delectables? Arora wrote in MD that, in 1975, they were "outrageously abundant" but then didn't show up in any quantities until several years later. Are we in the middle of one of those cycles?

The sports fan within tells me to wait until next year. . . .

We can start to think about the spring Sierra season soon. I have seen that start in a warm late March producing blewits, coccoli, and puff balls at 3,500'.

Then in April we get to worry about where morels will appear.

That's all for now folks.



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classification is based (hopefully) on the best data available at the time, and science is always going to find new data. Our knowledge of evolutionary history and actual evolutionary history are two different things, and the former is always only an approximation of the latter, one that hopefully, over time, improves.

### Further reading:

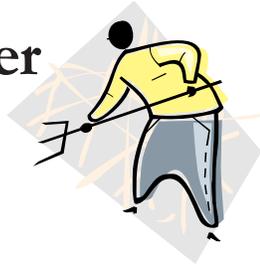
Hibbett D, Pine EM, Langer E, Langer G, and Donoghue MJ. 1997. Evolution of gilled mushrooms and puffballs inferred from ribosomal DNA sequences. *Proceedings of the National Academy of Sciences, USA*. 94:12002-12006.

Moncalvo J-M, Lutzoni FM, Rehner SA, Johnson J, and Vilgalys R. 2000. Phylogenetic relationships of agaric fungi based on nuclear large subunit ribosomal DNA sequences. *Systematic Biology* 49:278-305.

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## Cultivation Corner

By Ken Litchfield © 2004  
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### Presidio Mushroom Garden Potluck Workday

Yes, we had to move the MSSF's Mushroom Lab to a new location at Merritt College from its former condemned. But, we still have our Mushroom Garden at Presidio National Park where we teach growing garden mushrooms to Crissy Field Center classes and MSSF members. On Sunday, March 14th from 10am to 2pm we will have a pot luck workday in the MSSF Mushroom Garden at the Presidio Community Gardens. We'll be weeding, planting, gopher proofing, log plugging and terrace renewing, and mulching the pathways and garden beds where we have mushroom patches growing with the herbs and vegetables. Come out and learn how to garden with mushrooms right along with your regular garden plants. Meet the other folks in the community gardens during the potluck and see how some of them have added mushrooms to their plots, too. It is a beautiful location with hawks and hummingbirds in the heart of the Presidio National Park. If you have taken seminars with us you probably know the way but even so please let me know you're coming, and if you don't know the way or have forgotten, email me and I'll tell you how to get there.

### San Francisco Flower and Garden Show

We have a special exhibition in the San Francisco Flower and Garden Show at the Cow Palace in southern San Francisco from Wednesday, March 17 to Sunday March 21. On Monday and Tuesday the 15th and 16th we'll be setting up our 8' by 16' "Mushrooms in Your Garden" exhibit and taking it down on Sunday evening and Monday morning. It is a beautiful exhibit of all kinds of mushrooms presented in a manner to impress the approx. 60,000 attendees with ideas of what with what they might be able to do in a shady part of their own garden. Like other garden exhibits, it is created with showiness and "floriferousness" in mind, not necessarily what you might actually be able to have "blooming" all at the same time in a real mushroom garden on a regular basis. We have done the garden show for several years and we always have many oohs and aahs and positive comments from the garden loving public, many of whom think of fungicides first when they think of fungi in the garden.

If you would like to participate in the MSSF's display there are two ways in which we could use your help. One would be to bring in impressive wild mushrooms in good enough condition to last for as many of the five days of the exhibit as possible. Besides mushrooms we could use cool looking mossy logs, turkey tail logs, and potted ferns for enhancing the display. All these materials can be left at the mushroom garden at the

Randall Museum. The other way would be to sign up to monitor the display during the show. This will entail answering the public's questions about mushrooms, membership in the society, handing out literature, etc. and periodically misting the exhibit to keep it fresh. This year we will not have our usual educational booth because the price has been raised too high. However, the show pays us to put on the garden display and we can have our monitors there. There will be one or two people per shift and two shifts per day, morning 9-1:30 and afternoon 1:30-6 during Wednesday, Thursday and Sunday and a third evening shift 6-9 on Friday and Saturday. Shift times may vary before being firmed up by show time. You can BART to the Balboa Station and ride the free Garden Show shuttle to and from the Cow Palace to avoid the Palace parking fees. If you would like to volunteer for a shift please email me early as we have to turn in our volunteer list to the garden show folks before the show. I'll also send you the logistics of how to get your entry pass good for the whole day so you can see the show before or after your shift (2003 value-\$20).

### Mushroom Day at Randall Museum Thanks

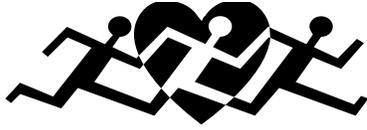
I would like to thank everyone who did the wonderful work to make Mushroom Day a very nice success. We planned for a smaller day this year due to staff cutbacks and other uncertainties at the museum but everything went well and we had a mellow and successful event.

Special thanks to: George Collier for an outstanding job handling the soup sales and organizing that effort with Bill Hellums, David Weitzman, Sherry and Al Carvajal, Mark Lockaby, and Norm Andresen; JR Blair, Terry Sullivan, Fred Stevens, and Peter Werner for mushroom ID; Peter Werner and Tom Chester for leading forays for the displays; Dan Long for setup on Friday and spotting folks on Saturday Monique Carment for spotting folks on Saturday; Mark Lockaby for the Edibles display; Norm Andresen for the book sales; Jane Collier for the membership table; Tobe Garrone and her son for the mushroom kit sales; Jared Aldrich for mushroom dyes; Enrique Sanchez and Chris Boettcher for log plugging; John Dillon for the video setup and poisonous display; Susan Way for mushroom charms; Margaret Goodale for the setup of the poisonous display and helping Susan; Elena and her friend Sarah for their excellent handling of all the mushroom drawing activities for their class project; Julie Dodd Tetzlaff for providing the art supplies; Julie Mark for setup and making signs and fliers; Genevieve Antaky for publicity; and Nathan Robinson, Jeff Byers, Geoff Smith, and Dan Springer of the Randall Friends for greeting the public and directing them to activities.

Hopefully, I didn't leave anyone out.

I would also like to thank Carol Preston for all the great things she did in getting the event started a few years ago and carrying it each year. I would not have known how much she did if I hadn't tried to hobble around in her shoes this time around.

## Upcoming Forays



### Saturday, March 13, Day-trip Foray to Mendocino Coast:

Meeting time at 11:30 am at the beach parking lot of Van Damme State Park, on the west side of Highway 1. We will carpool to a foray site to be determined. Contact Peter Werner (415-289-0168 or [pgwerner@sfsu.edu](mailto:pgwerner@sfsu.edu)) for further information.

### Friday-Sunday, April 30-May 2, Annual San Jose Family

**Camp Foray:** Come for a fun and carefree weekend where lodging and meals are provided. Stay in tent cabins with electric lights and where nearby bathrooms have hot water and showers. Enjoy hunting morel in its natural environment and you may even find spring boletes. Cost for the weekend for members is \$95, for nonmembers, \$115 and \$55 for children. Leaders: Mark Lockaby and Tina and Thomas Keller. For reservation and information, contact Tom Sasaki, Foray Coordinator (415) 776-0791, [sasakitom@aol.com](mailto:sasakitom@aol.com).



Terry Sullivan

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**Note: Deadline for the April 2004 issue of Mycena News is March 18.**

Please send your articles, calendar items and other information to:  
[mycena-news@mssf.org](mailto:mycena-news@mssf.org)

## Culinary Corner



from Grandma's Attic

### Candy Cap Coffee Cake

Preheat oven to 350

Grease 9 X 12 inch pan

Ingredients:

2 cups flour plus 4 tbsp.

1/4 cup sugar plus 10 tbsp.

2 tsp. double-acting baking powder

1/4 tsp. Salt

1/2 cup butter plus 4 tbsp.

1 egg

Milk

1 tsp. vanilla

1/8 oz ground dried candy cap mushrooms

1 tsp. cinnamon

Combine 2 cups flour, 1/4 cup sugar, double-acting baking powder, salt. Cut in 1/2 cup butter.

In a measuring cup add egg and fill with enough milk to measure 1 cup. Beat and add to dry ingredients. Add vanilla. Fold in Candy Caps.

**Topping:** In a separate bowl, combine remaining flour, butter and sugar. Blend with fork until mixture crumbles. Add cinnamon.

Pour 1/2 of batter into pan, spread 1/2 of topping on top of batter, add remaining batter and sprinkle with remaining topping.

Bake approx. 25 minutes or until knife comes clean when put into cake.



For more information on many subjects – check the MSSF web site at:

[www.mssf.org](http://www.mssf.org)

As of February 1, the new login for the members only section of the MSSF website is **XX**. The new password is **-XXXXX**.

Mycological Society of San Francisco  
c/o The Randall Museum  
199 Museum Way  
San Francisco, CA 94114

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## MSSF Calendar, March, 2004

**Monday, March 1, Culinary Group's Monthly Dinner:** 7:00 pm. Meeting and dinner at Hall of Flowers in Golden Gate Park in San Francisco. For reservations, please contact Alvaro Carvajal (415-695-0466 or email to: [alvaro.carvajal@sbcglobal.net](mailto:alvaro.carvajal@sbcglobal.net)).

**Saturday, March 13, Day-trip Foray to Mendocino Coast:** 11:30 am. at beach parking lot of Van Damme State Park. See Forays (page 7) for details. Contact Peter Werner (415-289-0168 or [pgwerner@sfsu.edu](mailto:pgwerner@sfsu.edu)) for further information.

**Sunday, March 14th, Presidio Mushroom Garden Potluck Workday:** 10am - 2pm. See Cultivation Corner article this issue. Contact Ken Litchfield at ([klitchfield@randallmuseum.org](mailto:klitchfield@randallmuseum.org))

**Wednesday - Sunday, March 17-21, San Francisco Flower and Garden Show - "Mushroom in Your Garden" Exhibit:** Volunteer to monitor the exhibit for the public. See Cultivation Corner article this issue. (page 6) Contact Ken Litchfield at ([klitchfield@randallmuseum.org](mailto:klitchfield@randallmuseum.org)).

**Friday-Sunday, April 30-May 2, Annual San Jose Family Camp Foray:** Come for a fun and carefree weekend where lodging and meals are provided. Stay in tent cabins with electric lights and where nearby bathrooms have hot water and showers. Enjoy hunting morel in its natural environment and you may even find spring boletes. Cost for the weekend for members is \$95, for nonmembers, \$115 and \$55 for children. Leaders: Mark Lockaby and Tina and Thomas Keller. For reservation and information, contact Tom Sasaki, Foray Coordinator (415-776-0791 or email [sasakitom@aol.com](mailto:sasakitom@aol.com)).

