

Speaker for January 17 MSSF Meeting



Leon Shernoff (center of picnic table) ID'ing mushrooms.

Those Wacky Eastern Mushrooms!

Our January speaker is Leon Shernoff, who will share his fungal passion and experiences East of the Mississippi River. Leon became interested in wild mushrooms when he realized that they were much less dangerous than the wild plants he'd been eating so many of. His talk titled, "Those Wacky East Coast Mushrooms!" is sure to be entertaining.

Scarlet puffballs...bright purple boletes...shaggy boletes...What does that wilderness East of the Rockies have that we don't have?

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Mycena News

The Mycological Society of San Francisco January, 2006, vol 57:01

Mycodigest: The What-Where- and-When Question

Else Vellinga

Every year at the fungus fair, all the species that are identified are painstakingly recorded and a list is put together (available at the MSSF website). These lists go back a long time, far into the seventies. What do these lists tell us?

The lists as such give some information on the mushroom species growing in the bigger San Francisco Bay area, and show which species are commonly fruiting at a certain time. They also can show trends; some species may suddenly appear on the lists, others might vanish.

More data than names are needed if we want to draw conclusions from the lists. Where were the mushrooms exactly collected? What dates were the fairs? What was the weather like before the collecting and during the summer months? Who went out in the field, and how many in each area, and who did the identification, what sources did they use, and were collections preserved to check the names?

A name, suddenly appearing on a list, does not necessarily mean that the species is new to the area. An expert in that particular group of mushrooms might have been present and introduced the locals to this species, or a key might have been published, making at last identification of Cortinarius species possible (to name a notoriously neglected group in the recording). If the lists went further back in time, perhaps twice as far as they do now, we would see *Amanita phalloides* make its first appearance, and could follow its subsequent spread.

Clearly there are various factors which determine the presence of names on a list – biotic factors (the species has recently arrived); abiotic factors (the weather was favourable for the fruiting of a certain species), and many human factors (such as the areas where people go, and the people who identify the mushrooms).

Fortunately, the MSSF website offers more than just those lists. At least for the years 2001-2004 catalogues are available, not only listing the species which have been identified, but also where they were found, and which species were new records.

Mycology in our part of the USA is still very much in flux so the names we apply to species are not necessarily correct (among the plentiful examples: *Leucoagaricus rubrotinctus* only grows east of the Rocky Mountains, not in California; what was called *Amanita rubescens* until a few years ago was then described as a new species *A. novinupta*, *Daldinia grandis*, King Alfred's cakes, appears to be very rare, and most collections under that name are now identified as *Hypoxyylon thouarsianum*), and for many groups adequate keys are just not available. For all these reasons, it would be great to keep the collections from the fair, dry them and preserve them in a herbarium, so they are

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MycoDigest is a section of the Mycena News dedicated to the scientific review of recent Mycological Information.

First Pt. Reyes Myco-Blitz a Resounding Success!

David Rust

Frost covered the grassy fields along Sir Francis Drake Boulevard as my wife and I drove out to Pt. Reyes for the first-ever Myco-Blitz foray. "Oh no," I thought. "We'll be collecting frozen mushrooms." I kept my fingers crossed and hoped people would be motivated to come out for a scientific-oriented collecting foray.

It was quiet when we arrived in the parking lot, and the sun was shining brightly. Good. Time to fire up the coffee urn, and get the sign-up sheets laid out. Park staff brought out tables, and helped with set up. By 9:00 a.m. cars began to arrive in numbers. Behind the Bear Valley Visitor Center, the coffeemaker seemed to take forever to brew, but people were assuaged by a selection of pastries, breakfast bars, and fruit. Inside the auditorium, people crowded around three tables of maps and sign-up sheets, trying to get an idea of which trail to hunt. As we struggled to give out maps, field labels, wax bags, collecting instructions, and permits for the dashboard, more and more people appeared.

It took little prompting to organize people to collect in 20 separate routes. By 9:30 most of the assembled crowd had dispersed to collect fungi. The first ever Pt Reyes National Seashore Myco-Blitz was underway.

This remarkable event attracted over 125 participants—from the Humboldt Bay Mycological Society, the Fungus Federation of Santa Cruz, the Sonoma County Mycological Association, the Mycological Society of San Francisco, and students from San Francisco State University and UC Berkeley. Lured by the possibility of the odd *Russula*, Dr. Steven L. Miller, curator of the Wilhelm Solheim Mycological Herbarium and associate professor in the Department of Botany at the University of Wyoming, joined the foray. Many people new to mushrooms also attended.

At UC Berkeley on Saturday night, a team began to sort the mountain of wax bags into an orderly starting point for identification. Dr. Miller and the MSSP's Norm Andresen quickly got to work with the *Russulas*. We checked field labels, and gathered around unusual specimens to "ooh" and "ahh." Even Limantour Beach produced fungi (the person who collected there left some sand in the wax bag along with the mushrooms as evidence.) Identification, photography and vouchering lasted several days. The species list isn't quite ready, but the efforts of 125 people will have added many, many species to a list maintained by Dr. Tom Bruns during his two decades of study at Pt Reyes.

Please join us on Saturday, January 28th, for the second Myco-Blitz Foray at Pt. Reyes.

The second Myco-Blitz foray will take place on **Saturday, January 28, 2006**. Please plan to attend the first-ever Point Reyes Fungus Fair at the Bear Valley Visitor Center on **Sunday, January 29th**. Come learn about fungi, the unique habitats of Pt. Reyes, and have a blast!

Where:

Meet at the **Bear Valley Visitor Center**. Point Reyes National Seashore NP is located approximately 35 miles north of San Francisco on Highway 1. You can also reach the park via Sir Francis Drake Boulevard. When you reach Olema at Highway 1, turn right. Go one block north and turn left; following signs to the visitor center.

When:

Saturday, 9:00 a.m. – 2:00 p.m. for collecting; return to the Bear Valley Visitor Center for pre-sorting and a look at what is brought in. The ID process will take place this time in a classroom at the red barn by the entrance — please stay to help with sorting and identification, and preparation for the Sunday public display.

What to bring:

Bring mushroom collecting baskets, a tackle box (for small specimens) digging tools or a pocket knife, water, whistle, compass, and lunch. Dress for the weather and bring an extra layer of clothing for warmth. Wear sturdy hiking shoes. All trails in the park are closed to dogs — please leave yours at home for this foray. Wax bags will be provided. Poison oak and nettles are found along some of the trails.

Who:

Members of the Bay Area mycological societies, as well as professional and amateur mycologists from all over the Bay Area. Contact David Rust (incredulis@yahoo.com, 510-430-9353), Peter Werner (pgwerner@sfsu.edu), Ron Pastorino (ronpast@aol.com, 415-924-4818), or Darvin DeShazer (muscaria@pacbell.net) for more information.

For more information about the Point Reyes National Seashore, visit the website: <http://www.nps.gov/pore/>. For directions and a map: <http://www.pointreyes.org/>.

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The Foragers' Report

January 2006

Mushroom Talk

Patrick Hamilton

Somewhere in the Salt Point SP forest: "Look—hey, doesn't it seem that the rains from early summer had a big effect on the fruiting patterns of all these fungi?" I was saying to my mushroom-hunting buddy while admiring so many of them covering parts of the forest floor. Lots.

"But indirect or direct?" He replied and continued, "I think I remember that back in 1988, didn't we have summer storms in late August, or early September? Whenever, and what a year for hedgehogs. But rains as early as we had this summer—I dunno, seems to be so long ago."

"You may be right. It must have been an indirect effect—or none at all? Huh? Huh."

We continued our walk through the woods checking stuff out, puzzling more, positing almost non-stop. "How about last year when the matsies were so abundant, even before the cold snap, and we tried to figure out that fruiting pattern and compared it to the past five years or so? Could have been caused by those rains we had in November, or maybe not."

"You might be right. Could be. Now with that real warm spell in beginning of December things might just pop spectacularly."

"If we get some more rain."

"Look! Come here. Check this out: all these black tubes and pencil-sized baby hedgehogs. It's gonna be a great year for blacks and hedgehogs. Ya think?"

"Yeah. Maybe."

And once again we were narrating our hunt and entertaining ourselves with mushroom talk—the sort of inane conversation about the what, why, which, where, etc., that we all seem to arrive at sometime during a fungi hike.

When we first began to learn about mushrooms, their identification and their habitats, we were all questions and ears (if we were smart and wanted to be invited back). As we accumulated knowledge a lot of us stopped asking so many questions and started to offer info. Sagacious mentors listened and responded with some of their own stuff. And there it was—"mushroom talk."

Speaking of same: the "signs" (these are keys gathered from years of Bois Babble by experienced pickers) show that matsutakes appear to be finishing already in the north part of

our area. In Cazadero a hunter pulled over 75 pounds out of her patch the week of December 16 but left many "flags" (large, browning gills, overly-opened matsies). Half dollar-sized hedgehogs are showing, as are some blacks.

In Napa Valley matsutakes, white chanterelles, queen and butter boletes are being picked in mixed forests. At the Pt. Reyes fungal survey lots of non-edibles were gathered by people who usually only search for the pot. That was a good time and great for learning more mushroom stuff (to add to the talk).

Many butter boletes are being found under madrone in Lake County and, if that is any indication, we should have a fine blewitt year. This day's (12/18) warmth after the storm of the weekend will certainly bring lots and lots of fungi in the next weeks. Mushroom talk.

Who knows what the upcoming mid and late winter seasons will show us. We all can guess and it is fun trying to figure it out. And we can sure talk about it.

More fun can be had by those of you who wish to create a couple of wintry comfort dishes. Check out these twists on classics.

Coquilles St. Jacques with Black Chanterelles

Serving Size: 8 Preparation Time: 1 hour

1/4 cup bread crumbs, fresh from baguette
 1/4 cup (1/2 oz) Parmigiano-reggiano, finely grated
 1/4 cup dry white wine
 1 cup water
 1/2 onion, small, sliced
 1/2 bay leaf
 1/2 tsp sea salt
 1/4 tsp black pepper, freshly ground (always)
 1 lb sea scallops, tough muscle removed, cut 3/4" pieces
 1/2 lb black chanterelles, chopped small
 6 Tbsp unsalted butter
 1/2 cup heavy cream
 1 egg yolk, large
 1 Tbsp AP flour
 8 cups Kosher salt
 1 1/2 Tbsp Italian parsley, minced

Oven 350 degrees F.

1. Toast crumbs until pale golden, 6-8 mins, toss with cheese.
2. Simmer wine, water, onion, bay leaf, salt, and pepper in 2-3 qt pan, uncovered for 5 mins. Add scallops and simmer, uncovered, stirring occasionally, until just cooked—2 to 3 mins. Transfer scallops to a platter with slotted spoon to cool, returning any onions to pan, reduce to 1 cup. Strain into bowl.
3. Cook mushrooms in 2 Tbsp of butter for 5 minutes. Season.

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available later for morphological and molecular examination. In fact, herbaria exist for this purpose and people can still study the actual mushrooms that were collected by our distinguished mycological forebears back to the nineteenth century. For the fairs the time to do this, and the space to preserve the collections, are both in short supply, with the result that this has seldom been done. Only a few, rare or exceptional species have been conserved, depending on the interests of the people present.

The Point Reyes Mycoblitz, held this December 10, tried to fill some of the gaps. Organized by Prof. Bruns with the cooperation of the National Park Service, this event focused on one area only, and covered as many different habitats as possible from the dunes bordering Limantour beach to the pine clad top of Mount Vision, and south to the ridge just west of the San Andreas Fault. In all, around 200 collections were dried and will be preserved in the herbarium of UC-Berkeley along with photographs and much descriptive information. Many more collections were made but duplicates and the ones already collected from the area were discarded. Among the highlights were *Amanita porphyria* and an orange crust-forming polypore that has kept us intrigued (we are still working on its name). The mycoblitz will be repeated at the end of January for a second snapshot of the fungal diversity (look for details in the calendar section), and in the next few years.

Of course, the purpose of the mycoblitzes is to assess diversity systematically in one particular area, albeit a large one, while the focus at the fungus fairs is on showing fungi to the general public. Also, the participants of the mycoblitz diligently filled out the field labels with information on location, habitat, and substrate. This is hardly done for the fungus fair.

Since 1997 NAMA, the North American Mycological Association, has kept good records of the species found during its annual forays. Collections of each species – known as vouchers – are photographed and kept in the Field Museum in Chicago. The data are entered into a database, which you can find on-line (<http://www.fieldmuseum.org/nama/>). Although the number of forays is still small, the sites are distributed over the country and the data are now easily accessible.

Naturally there is overlap in the species fruiting every year at the time of the fair, but in general there is huge variation in the lists. Only a few species at the fungus fairs are found in many locations. This phenomenon is very common in any inventory, whether it covers a whole country or just a small area; there are a few dominant species, found all the time and everywhere, and a huge number of species recorded only once or in one spot. The abundant ones at the Point Reyes Mycoblitz were members of the *Gymnopus dryophilus* group, which showed up everywhere (and also appeared a day later in several foray sites for the Yuba Watershed Institute event in North Columbia), and *Inocybe sororia* which you seemed to see whenever you put your basket down.

The absence of mushrooms (the fruitbodies) does not necessarily mean that the species is absent, but when we find the fruitbody we have foolproof evidence that the species is there. Other than conks, most fruitbodies have a very restricted lifespan, ranging from a few hours for fragile inky caps to perhaps a month or two for *Sarcoscypha* and other fleshy ascomycetes. To be in the right spot at the right time is a challenge, as every bolete hunter knows. We would like to know the size of the individual organism (the number of fruitbodies is no indication of the size of the below-ground part – many small apple trees can produce as many apples, as one old big trees) and its age. For both these aspects of fungal life we know very little, and that only for a few species in a few settings.

A meticulous Swiss study was set up to monitor the mycoflora in one forest. For 21 years, every week from May to December, the same protected plots were visited, and all fruitbodies were counted and identified to species. Individual fruitbodies were painted to avoid double counting. During all those years around 400 species were found, but only eight showed up consistently every year. Up to the end, the list was still growing with new species.

Since 1980 a mammoth recording project in the Netherlands has collected around 1.4 million meticulously identified and thoroughly documented records. Provided they meet its standards all collections are welcomed, whether they come from forays and mushroom weekends, systematic plot studies or are accidental finds. Even data from herbaria and the mycological literature have been incorporated into the database – the oldest record is from 1808. Each year new species are still added. With a totally different approach than the Swiss study, this project has produced distribution and temporal data on a national scale.

The big question is of course; how long and how intensively do we have to inventory mushrooms in a certain area to get a complete list of the species present? Are fruitbody inventories the best way to seek an answer, or are there other, molecularly-based methods which are more appropriate?

Today, it is indeed possible to do a large-scale sequencing project – just sample soil, grind it up, extract DNA out of the mess, and sequence every tiny bit. Then you compare the sequences with those in databases. When this was done in two plots in Duke Forest (NC), 412 sequence types for fungi were found. This is quite impressive, especially when compared with the outcome from the long-term and intensive Swiss study. This approach does have its limitations; not all species will have sufficient DNA and not all will do well with standard methods, while the current databases are underpopulated and of uncertain reliability. After all, putting a name on a sequence can only be done when someone has already identified it (correctly!) and provided a sequence for comparison. There is discussion about the feasibility of molecular “bar-codes” but, for the moment, the process still rests on traditional taxonomy, a skill slowly acquired.

Of course, another limitation of the molecular approach is that it does not say anything about fruiting patterns. Fruiting is important as an indication of the state of the environment. When forests which are naturally low in nitrogen get more and more of it, because of human activities, the trees eventually reduce the amount of carbohydrates they pass on to the ectomycorrhizal fungi, and this may prevent them from forming fruitbodies. In other words, changes in the environment change what we see above ground. Also, there will be a change in species composition, but that will also show up in studies of the underground world.

Similar studies to the Duke Forest inventory have been done for ectomycorrhizal fungi in one forest in the southern Sierra Nevada by sampling root tips which were ectomycorrhizal (i.e. they are covered by a fungal mantle), and comparing the sequences from those root tips with fruitbody sequences. There, 100 species were found, all growing with *Abies* sp., and one fifth of the species form hypogeous fruitbodies which are hard to find, when you just walk through and do not rake. So here we see a clear advantage of the molecular method. It should also be kept in mind that these dry forests do not produce fruitbodies on a regular basis.

All these data are extremely valuable, whether they have been collected by accidental encounters with fruitbodies, or systematic inventories of all substrates and careful matching of DNA sequences. They reveal the fungal diversity at a certain time and a certain place. Changes can be tracked with these data as reference. Distribution data can be inferred, management measures can be tracked by inventorying at a later date etc. The data even gain value when they are easily accessible to others; here the NAMA data base, as a national project, sets a great example.

The data from the Swiss studies have been used for comparison with data collected in a similar way from nitrogen enriched plots, and from plots where the mushrooms were systematically picked. To reassure everybody, the conclusion is that even such picking does not influence in any way the formation of fruitbodies through the years. Trampling the forest floor, on the other hand, does have a negative effect on the fruiting. But, when the area is fenced off to keep people out, next year the mushrooms fruit normally again. The Dutch data have clearly shown human effects on a larger scale, notably that many ectomycorrhizal species have declined dramatically, due to nitrogen and acid deposition, and that, by contrast, many wood chip fungi have appeared and are flourishing.

So, give your mushrooming that extra value by recording and keeping specimens, by participating in mycoblitzes, collecting for the fair, and going to national forays!

Some further reading:

Egli, S., M. Peter, C. Buser, W. Stahl & F. Ayer, early-on-line, 2005. Mushroom picking does not impair future harvests – results of a long-term study in Switzerland. *Biological Conservation*.

Izzo, A., M. Meyer, J.M. Trappe, M. North & T.D. Bruns, 2005. Hypogeous ectomycorrhizal fungal species on roots and in small mammal diet in a mixed-conifer forest. *Forestry science* 51: 243-254.

Mueller, G.M., G.F. Bills & M.S. Foster (eds), 2004. Biodiversity of Fungi.

O'Brien, H., J.L. Parrent, J.A. Jackson, J.-M. Moncalvo & R. Vilgalys, 2005. Fungal community analysis by large-scale sequencing of environmental samples. *Applied and Environmental Microbiology* 71: 5544-5550.

Straatsma, G., F. Ayer & S. Egli, 2001. Species richness, abundance, and phenology of fungal fruit bodies over 21 years in a Swiss forest plot. *Mycological Research* 105: 515-523.

January Speaker

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For Easterners, the land West of the Rockies is the fabled land of truckfuls of edibles: burn morels, mountainsides of porcinis, forests full of matsutake. The West has huge quantities of edibles because the trees that they grow with dominate their ecosystems, resulting in miles and miles of forest with just a few kinds of trees in them. When a mushroom associated with these trees fruits, it may do so in great quantity.

The eastern hardwood and mixed forests, on the other hand, have a much higher diversity of tree species. This, in turn, translates to a much higher diversity of mycorrhizal fungi. The East has as many different species of boletes as it does Russulas, as well as Amanitas that have lost their mycorrhizal lifestyle for an existence on the prairie, and even a few choice edibles not found on the West Coast!

Leon is currently President of the Illinois Mycological Association and editor of *Mushroom, the Journal of Wild Mushrooming*. His work includes being responsible for: reprints for the *The Origins of Symbiosis*; an online Dictionary of Mycological Terms; an extensive Myco-etymological Dictionary; and numerous clever articles in *Mushroom, the Journal*. Leon has been a guest speaker and mycologist at forays from Oregon to Boston and currently concentrates his time on "printed forays" in the Journal.

For more information about Leon Shernoff, the work described above, and *Mushroom, the Journal*, check out www.mushroomthejournal.com.

Foragers' Report

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4. Whisk cream and yolk. Melt 2 Tbsp of butter in a pan and add flour and cook the roux 2 mins. Break the roux with reduced liquid, heat and simmer 1 min. Remove from heat and season.

5. Heat broiler. Stir scallops and mushrooms into sauce, divide among scallop shells (if using—nestle shells in Kosher salt in pan) or ramekins and sprinkle with crumb mix. Dot with butter and broil 4" from heat until golden. Garnish with parsley.

Excellent with a dry sparkling wine, a fireplace glowing, and a very close friend.

Try this other yummy shellfish dish too with your soon to be fine stash (ah, mushroom talk) of black chanterelles.

Oyster Soup with Black Chanterelles and Chardonnay

Serving Size: 4 Preparation Time: 45 minutes

4 Tbsp unsalted butter
 1½ Tbsp minced shallots
 ½ cup black chanterelles, chopped small
 ¼ cup chardonnay, un-oaked (or just barely)
 12 oysters, Pacific, shucked (freshly jarred okay)
 1 tsp sea salt dissolved in ½ cup water
 ¼ cup crème fraîche
 1½ tsp chives, minced
 1½ tsp tarragon, minced
 ½ tsp white pepper

Melt butter and heat until foamy, add shallots and mushrooms and cook five minutes over medium. Add wine and cook for 1 minute. Add oysters and their liquor and the salt water mixture. When tiny bubbles form around the edge of the pan, stir in the crème fraîche, chive, tarragon, and pepper. Cook about 1-2 minutes.

Serve with an herb and cheesy garlic bread and a mineral, acidic, and fruity Chardonnay—like a real Chablis (Raveneau would work).

That's all for now folks!

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A Very Special Place

Else Vellinga

Inhabitants of the golden state have always known that California is different from the rest of the country, but the surprising news from some recent studies is that this is also true for many of its organisms. The Californian ravens are different from all other ravens, though by just looking at them you would never be able to tell. The differences are in their genetic make-up, especially in the mitochondrial genome. A fungal example is Splitgill, *Schizophyllum commune*, whose specimens from the west of the USA are similar to those in Europe, and different from all other North Americans. Again, these findings are based on sequence data; all splitgills look alike and when put together on a petri dish they interbreed, regardless of their origin.

More striking is that our west coast Matsutakes are not like any other matsutake; the Californian branch differs from the main three groups, one in Mexico, one in North Africa and one ranging from the eastern USA to Japan. A similar pattern is emerging for two *Amanita* species.

Californian *Amanita pantherina* is quite different from specimens bearing the same name from Europe, Nepal and Japan. Whether they are also different from the east-coast denizens is not known, as no samples from this region were included in the recent study by Oda and co-workers. However, these researchers made a wider sampling of *Amanita muscaria*, and all American specimens differed from those in Eurasia. Furthermore, the west coast and east coast representatives clustered in two separate groups, regardless of their colours. And for now there does not seem any correlation between morphology and molecular characters. That means, that recognition of the different types in the field is not possible, and that we have to do DNA analyses to figure out which one we have in hand. In Alaska, for example, Eurasian, American and high-latitude forms co-exist.

All kinds of question spring to mind but so far have no answers: what is happening in the Rocky Mountains and northern boreal regions where eastern and western populations may meet; what is the history of these patterns – do the different fungal groups have the same background and did they take the same routes to California? Can there be one mechanism to explain crows and mushrooms? Do these patterns hold up when data from other regions are included? Do the same patterns occur in saprotrophic species, and can we still discern the natural patterns from present-day distributions?

With molecular markers the origins of populations which were introduced to the Southern Hemisphere can be revealed. *Amanita muscaria* is new to New Zealand, and the one New Zealand Fly agaric in the Oda study groups with the Japanese specimens. Is there only one type of *Amanita muscaria* here in California, and do the individuals growing with different host

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Freedom Song

Bob & Barbara Sommer

We are here at Salt Point, the only state park in the area where mushroom collecting is permitted. We are legal! Legal! What a treat to be able to pick openly—to park at the trailhead, wear conspicuous clothing, follow a marked path rather than skulking through the underbrush, carry an open basket, and not try to avoid other people, especially the park ranger. We didn't bring our baskets on this excursion; it has been so long since we picked legally that baskets are no longer on our trip list. Occasionally we see beautiful African wicker baskets for sale in craft shops, but there is no point in buying them in view of the scant usage they'd receive. We bring baskets to organized forays, but not on independent excursions like this to nearby woods where we operate as *undercover mycophiles*, a sleeper cell activated each year by rain.

Our collection book, listing species found by location, is a record of criminal activity. Most sites mentioned are parks, reserves, lumber company land, trails in private developments, and lawns around public buildings. Although stopped by authorities multiple times, we have never been arrested. We are a successful criminal conspiracy; some day we may be prosecuted under RICO. At Salt Point, we feel like career criminals working their first honest jobs. We are likely to revert to type in the future (recidivism is high among mushroomers) but for the moment it feels good to be law-abiding citizens.

Illegal foraging is a downside of Northern California mushrooming. We don't refer to the massive harvests of professional pickers selling to upscale San Francisco restaurants and the export market. Rather we mean illegal foraging by us, the good guys, the informed amateurs, members of mushroom clubs and independents who appreciate the beauty and ecological significance of fungi. We are not proud that our hobby encourages us to violate the law.

Things were not always like this. When we became interested in fungi 30 years ago, we could pick almost anywhere. Amateur mycology was considered a type of nature study, like birdwatching or flower appreciation. People seeing us in the woods couldn't decide whether we were suicidal, homicidal, or just odd. Mushroom picking may not have been technically legal but it wasn't explicitly illegal. Park rules against disturbing fauna and flora (we rationalized that mushrooms were neither) weren't strictly enforced so long as we were discreet. Nature purists (leave no tern unstoned) did not notice us.

This was before commercial pickers entered the picture—folks who heard there was money to be made harvesting wild mushrooms on public land. Seasonal workers such as loggers, fishers, and construction workers found this to be a lucrative and pleasant way to supplement unemployment insurance during the rainy months. For recent immigrants, foraging was a money-earning opportunity that didn't require language

fluency. We are not criticizing any of these folks; they have as much right as we do to use public land. Yet the increased activity and visibility of mushroom picking brought calls for regulation. It didn't help that budget-strapped parks agencies were looking for new revenue sources.

The result was criminalization of what had previously been a quaint form of nature study or a cultural tradition. Slinking, sneaking, and skulking have become become a *modus operandi*. That was why it is so satisfying to collect legally. True, Salt Point has become the gathering place for mushroom clubs all over Northern California. There are obvious signs of mushroom activity—white russulas kicked over in the search for matsutakes, cut and discarded hygrophoropsis. The close-in trails are picked over in terms of the most desirable edibles, but if you know your mushrooms, there are less popular but still tasty varieties such as honeys, candy caps, and dentinum. In addition, the forest floor is carpeted with other fungi to admire. We carefully wrapped a few unfamiliar specimens to carry back to the motel for spore prints, ID, and sketches.

Jean Paul Sartre declared that he never felt more free than under Nazi occupation, when he published a clandestine newspaper. We are clandestine mushroomers but this doesn't give us feelings of freedom. Only when we pick legally are we truly free. Liberty is not synonymous with anarchy but with the legal exercise of individual rights within a societal context. Coming to Salt Point reminds us of what is missing when we move about like rodents hiding in the shadows to avoid notice. It is good to celebrate freedom, not our success in evading the authorities. We are not happy with the segregation and tokenism (one state park in the entire region) but this beats total prohibition.

Calendar

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Saturday February 4 Salt Point Foray: Meet at the Woodside parking lot at 10:00 am There will be a \$4.00 parking fee. We will go looking for Yellow-foot Chanterelles, Black Trumpets, Hedgehogs, and others. We will share a potluck lunch at 1:00 near the parking area. Some of us will be spending the night at the park. For information contact one of the leaders: Darren Murphey bugsbunny@sbcglobal.net or Mark Lockaby marklockaby@sbcglobal.net 510-387-5957

Monday, February 6: Culinary Group monthly dinner. Reservations required. 7 PM at the Hall of Flowers, Golden Gate Park, San Francisco. For reservations call Pat George at (510) 204-9130 or email plgeorge33@yahoo.com no later than Friday, February 3rd.

Tuesday, February 21: Mushroom Program for Beginners. Slide photos will be shown in the auditorium of the Randall Museum starting at 6:45 p.m., preceding the General Meeting and will run about 45 minutes. The February program will be Gilled Mushrooms II: White Spored and will discuss *Armillaria*, *Mycena*, *Flammulina*, *Collybia*, *Marasmius*, *Clitocybe*, *Laccaria*, and *Pleurotus* among others.

Special Place

Continued from page 6

trees have the same ITS and beta-tubulins (the markers used in this particular study)?

Whatever the answers to these questions, the California mycoflora is definitely different from that in the rest of the world, and studying and conserving it are great challenges!

Background reading:

Chapela, I.H. & M. Garbelotto, 2004. Phylogeography and evolution in matsutake and close allies inferred by analyses of ITS sequences and AFLPs. *Mycologia* 96: 730-741.

James, T.Y., J.-M. Moncalvo, S. Li & R. Vilgalys, 2001. Polymorphism at the ribosomal DNA spacers and its relation to breeding structure of the widespread mushroom *Schizophyllum commune*. *Genetics* 157: 149-161.

Oda, T., C. Tanaka & M. Tsuda, 2004. Molecular phylogeny and biogeography of the widely distributed *Amanita* species, *A. muscaria* and *A. pantherina*. *Mycological Research* 108: 885-896.

Omland, K.E., C.L. Tarr, W.I. Boorman, J.M. Marzluff & R.C. Fleischer, 2000. Cryptic genetic variation and paraphyly in ravens. *Proceedings of the Royal Society, London, Series B*. 267: 2475-2482.

Slide Photo Programs for Beginners

Tom Sasaki

This is an invitation to beginners and new members, especially those who may have joined MSSF during the Annual Fungus Fair, to join our program preceding the General Meeting in January, February and March. These slide photo programs are a continuation of the ones started last year on the identification and classification of mushrooms. The programs were produced by the North American Mycological Association (NAMA).

In January, our program will be Gilled Mushrooms I: White Spored. It will include the *Amanita*, *Lepiota*, *Hygrophorous* and the *Russula* families. In February, it will be Gilled Mushrooms II: White Spored and will discuss *Armillaria*, *Mycena*, *Flammulina*, *Collybia*, *Marasmius*, *Clitocybe*, *Laccaria*, and *Pleurotus* among others. In March, we will feature Gilled Mushrooms IV: Purple-Brown to Black Spores. Photos will be of *Agaricus*, *Stropharia*, *Psilocybe*, *Coprinus*, *Panaeolus*, *Chroogomphus* and more. Gilled Mushrooms III: Pink to Brown Spored may be shown at some later date.

Upcoming Beginners' Forays

January 8, 2006. SF Watershed property adjacent to the Phleger Estate. Park at the western end of Edgewood Road which ramps off Route 280 just past Hillsborough. 10:00 AM to Noon. By reservation only. Limited to 25 participants. May be wet underfoot. Heavy rain cancels. This is a study rather than a collecting hike. Avoid the rush, call Bill Freedman early at 650-344-7774 or loufreed@aol.com.

January 14, 2006. Mills Canyon Foray. Hit the phone or your e-mail factory. Expert JR Blair, Lecturer with the Mycology Division at the University of SF, will lead this popular fact-filled study designed for beginners down in Mills Canyon, Burlingame on Saturday, January 14. Because of over attendance in the past, this outing will be by reservation only, limited to 25 guests of the Friends of Mills Canyon. We meet at the Adeline Drive entrance at 10:00 am. Heavy rain cancels. Wear durable shoes, the trail could be wet in spots. The trail is a 1-3/4 mile loop with minimal elevation. We usually finish about 12:30 PM. From Route 280 going south, take the Trousdale Ave. ramp. Turn right onto Skyline Boulevard to Hillcrest Ave. and left down to Adeline Drive, the second arterial stop. Parking is on the left of Adeline. For reservation please contact Bill Freedman at loufreed@aol.com or 650-344-7774. Please indicate the number of your party.

MSSF Discussion Group on Yahoo Groups

The MSSF email discussion group facilitated through Yahoo Groups is a great way to keep in contact with other members and is one of the primary ways in which members keep up on news about the Society. The list features often-intriguing discussion of fungal-related topics, tips about current fungal activity, and up-to-the-minute news about MSSF functions.

The list is available in both individual-message and digest formats. Additionally, you can also subscribe to the group in "Special Notices" mode. That means that if you wish to receive only official announcements from the society and not email traffic from other members, you can subscribe using this method. (Subscribers to the list in regular and digest formats also, of course, receive official announcements in addition to posts from other members.)

To sign up, go to:

<http://groups.yahoo.com/group/mssf/>

Follow the link that says "Join This Group". (You will need to sign up for a free Yahoo Groups membership if you do not have one already.)

Membership Corner

Polly Shaw

“Th-Th-Th-That’s all, folks!”

Time is about up to renew your membership for 2006, without missing a beat on the newsletters and listserv access. Our 2005 memberships expired December 31, and we’re about to change the password. (The mailing label on your *Mycena News* says when your membership expires.) But if you’d like to come along on more fun events, read on!

Fill out the information on the reverse side. Mail a check for the appropriate amount (made out to “MSSF”) to “MSSF Membership” c/o the Randall Museum, 199 Museum Way, San Francisco, CA 94114. Or, to save postage, you can give the envelope with the filled out form and check to Polly Shaw at the monthly meeting or culinary dinner.

You can also renew online by using the PayPal option on the MSSF website. If you do, please send Polly Shaw a personal email (at sfwaterbug@yahoo.com or 415-665-3293) with the information on the reverse of this column. Paypal provides only the name, mailing address, and email of those who enroll or renew. It does not give secondary members, telephone numbers, an alternate email address, or interests.

The regular, adult/family membership fee is \$25. Seniors over 65 and full-time students pay \$20. E-members pay \$15 to download the *Mycena News* and other publications from the website.

The MSSF treats membership information as private, but it does VERY occasionally release its membership list for mailings by mycological businesses. If you do not want your info published, either contact the membership chair or indicate on your renewal that you do not want to receive commercial mailings.

MYCOLOGICAL SOCIETY OF SAN FRANCISCO - Membership and Membership Renewal Application

New Members please fill out as much information as you can. Members who are renewing need to fill out only the blanks for which information has changed within the last year. Please check the current Roster to see if any of your address, phone, and email need updating!

Name 1: _____ Home Phone: _____
 Name 2: _____ Business Phone: _____
 Street/Apt#/PO: _____ Cell Phone: _____
 City: _____ Email 1: _____
 State: _____ Email 2: _____
 Zip Code: _____
 Interests: _____

New Membership? _____ Renewal? _____
 Membership type: _____ Adult/Family (\$25) _____ Senior/Students (\$20) _____ Electronic (\$15)

If sending a check, please make it out to "MSSF membership" and mail it, with this form to: MSSF Membership, c/o The Randall Junior Museum, 199 Museum Way, San Francisco, CA 94114

If paying by Credit Card, please provide the following information:

Circle Type of Credit Card: MasterCard, Visa, Discovery, or American Express

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MSSF Calendar, January, 2006

Monday, January 9: (note change of date!) **Culinary Group monthly dinner.** Reservations required. 7 PM at the Hall of Flowers, 9th and Lincoln, Golden Gate Park, San Francisco. For reservations call Pat George at (510) 204-9130 or email plgeorge33@yahoo.com no later than Friday, January 6th.

Saturday, January 14 Mushrooms 101. Presented by Bob Mackler at Muir Woods. 10 am. Call Muir Woods (415-388-2596) for reservations. Adults only. \$4.00 park entrance fee.

Friday-Monday, January 14-16. SOMA Winter Mushroom Camp. Special guests this year include Paul Stamets, well known author and fungal pioneer; Leon Shernoff, editor of *Mushroom, the Journal* and Dr. Michael Kuo from MushroomExpert.com. \$195 until Nov. 15, \$225 after. Registration closes on Wed. January 4. Includes lodging, meals, and all classes & activities. Sunday only fee: \$110, includes all the day's activities & presentations, and main dinner feast. Info: 707-829-2063 or camp@somamushrooms.org.

Tuesday, January 17: Mushroom Program for Beginners. Slide photos will be shown in the auditorium of the Randall Museum starting at 6:45 p.m., preceding the General Meeting and will run about 45 minutes. The January program will be Gilled Mushrooms I: White Spored and will include the Amanita, Lepiota, Hygrophorous and the Russula families.

Tuesday, January 17: MSSF General Meeting. Randall Museum. NAMA photo slide show for beginners at 6:45 pm with Amanita, Lepiota, Hygrophorous and Russula families. Mushroom identification at 7:00 pm. Leon Shernoff will discuss East Coast mushrooms at 8 pm.

Saturday, January 28. Point Reyes Foray. Led by Tom Bruns with David Rust, Peter Werner, Darvin Deshazer and Ron Pastorino. See inside this issue for more details.

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Note: Deadline for the January 2006 issue of Mycena News is January 20.
Please send your articles, calendar items and other information to:
mycenanews@mssf.org