

Speaker for April 20th

MSSF Meeting

Peter Kennedy

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Peter grew up in the Pacific Northwest near Seattle, WA. He received a B.S. degree in Biology in 1999 from The Evergreen State College, and is expecting to receive a Ph.D. in Integrative Biology in 2005 from UC Berkeley. His current research focuses on the role of mycorrhizal fungi related to plant community dynamics.

Although past research on forest dynamics has traditionally overlooked the role of mycorrhizal fungi,

Continued on page 2



Contents

<i>Speaker for April 20th Meeting.....</i>	1
<i>MycoDigest</i>	1
<i>The Foragers' Report</i>	4
<i>Upcoming Forays.....</i>	5
<i>Annual San Jose Family Camp.....</i>	6
<i>Culinary Corner</i>	7
<i>MSSF Calendar, April, 2004</i>	8



Mycena News

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MycoDigest

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

Why some types of 'ROT' aren't so bad

by Kelly Ivors

Without a doubt, fungi are most important on Earth as agents of decay. This is particularly true in forest ecosystems where wood decay fungi are important recyclers of nutrients, decomposing the primary components of wood such as cellulose and lignin and returning carbon and nitrogen back to the soil. These organisms determine rates at which nutrients are released back into the ecosystem following death of trees.

Wood decay and heart rots are extremely common in all parts of the world. If you've ever gone mushroom hunting in forested areas, you've seen what I am talking about. Decay is often visible, not necessarily because of the presence of rotten wood, but by virtue of the various and conspicuous conks and fruiting bodies produced by fungi on decaying stems and branches. Conks appear in various colors, can be bracket or shelf-like, hoof-shaped, or flattened to the stem, and are often porous on their spore-bearing surfaces (Fig. 1). However the spore-bearing surfaces of wood decay fungi can also be smooth (like *Stereum* species), gilled (like *Lenzites* species) or toothed (like *Irpex* species).

If you have conks growing on the tree outside your house, I have bad news for you! Although conks can appear on the surface of plant stems or branches that look healthy, usually the health of the host tissue is compromised. Rarely do decay fungi invade healthy, uninjured wood tissues. Following sufficient development (sometimes taking years), these fungi produce characteristic conks on the tree's external surfaces. Trees with advanced or extensive decay represent aesthetic and safety liabilities from the standpoint of branch or stem breakage. Some conks may appear for a short time and then disappear; others remain attached to infected trees for years.

Decay fungi can be categorized according to the type of rot they produce: soft, white, or brown rot. Soft rots are caused by Ascomycete fungi that use enzymes which adhere to the hyphal cell wall, therefore decay does not occur in advance of the fungus. White rots are caused by Basidiomycete fungi that can break down cellulose and lignin by using exocellulases that operate in advance of the

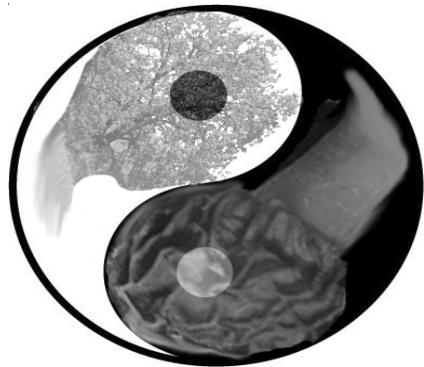
MycoDigest Continued on page 3

Speaker Continued from page 1

there is a growing body of evidence suggesting that these fungi play a key role in mediating plant interactions. One of the most exciting areas of research has been on the formation of common mycorrhizal networks (CMNs) between different plant species. CMNs have the potential to significantly influence forest dynamics, but our knowledge of their frequency in natural environments is limited. This talk will review past research on CMNs and present new work on CMNs between forest understory and canopy trees in a mixed evergreen California forest.



Peter Kennedy



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.)



Terry Sullivan



MSSF and *Phytophthora* *ramorum*

MSSF members need to be reminded of the presence of *Phytophthora ramorum* — otherwise known as Sudden Oak Death — in Northern California. *P. ramorum* will have dramatic and long-lasting effects on the ecology and diversity of mixed oak woodlands.

All users of public lands should learn the signs of *Phytophthora* and methods to prevent its spread. At this time, it is highly recommended that leaves, soil and firewood should not be removed as they carry the highest number of spores.

The most obvious actions people can take are to avoid going to areas where the disease is present, consult with local resources, respect state and county quarantines and trail closures, and use disinfectants to remove spores when leaving infected woodlands.

It is especially important that MSSF members who collect and study mushrooms for personal use take special care not to cause *P. ramorum* to be transported into uninfected areas by taking the following steps:

If you visit a woodland with symptoms of *P. ramorum*, knock off any loose soil or mud while still in the area. Where practical, use a disinfectant spray or dilute bleach solution to kill any remaining spores and rinse off your hiking boots and vehicle tires with water.

When visiting areas with no visible symptoms of the disease, wear a set of “clean” clothing and boots to avoid inadvertently introducing the disease to a new area.

Additional information *Phytophthora ramorum* can be found at www.suddenoakdeath.org

Mycodigest Continued from page 1

fungus. And brown rots are caused by Basidiomycetes that can only break down cellulose by using exo- and endocellulases. Decay occurs quickly with brown rotters—this is the worst type to get.

No effective control measures exist for treatment of existing heart rot or decay. Prevention is the best advice: avoid injuries to trees and promote tree vigor through timely fertilization schedules.

So just remember, not all types of decay are bad. Typically they’re not the prettiest looking fungi but from an ecological standpoint, wood decay fungi are beneficial and help maintain healthy forests— which means more mushrooms for us!



Fig. 1. *Piptoporus betulinus*, a common decay fungus of birch.



Society Officers

President: Mark Lockaby	(510)412-9964
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Book Sales: Norm Andresen	(510)278-8998
Membership: Jane Collier	(415)641-6068

The Foragers' Report

April 2004

by

Patrick Hamilton

To enable us to pick black chanterelles without slipping down the steep canyons of Salt Point State Park we supported our bottoms against tan oaks growing on the little rocky shelves where alert and knowledgeable pickers often find missed mushrooms. This was a tiring and difficult hunt with few rewards, however, and one of the few things that I came up with was the Gothic architectural term "buttress."

The mind wanders when the basket (plastic bag, mesh bag, paper bag, pocket?) is not being filled, or is at a pace that hardly qualifies as one at all.

The Trumpet of Death may be dead this season already. Commercial pickers reported that an extraordinary hunting day west of Willits was 20 pounds (that was the week of March 15 and one picker only). Doesn't compare well to the 40 and 60 pound daily takes of last year. We must be in another sort of cycle not yet understood by us. Remember that last year the season went into July in Mendocino county and had good, steady production throughout the late winter and spring months.

Wait until next year—like Stanford's basketball team.

Amanita velosa were very common in the Oakland hills this past month. In west Marin they were out but not like in the East Bay. I was fortunate to be taken on a hike with a tall past president to an area new to him, but perfect looking with plenty of live oaks growing about 20 to 40 yards apart on grassy hillsides, where we found well over a hundred of that favorite. Sautéed in butter, salt and pepper, period.

Winter chanterelles and hedgehogs have been scarce, golden chanterelles are having a "just okay" time so our minds and eyes can be turning a bit early towards the treasured Sierra spring season.

The very warm March has started to cause big runoffs from the gigantic snow pack already. The moisture level in the snow is abnormally high so we can expect that spring boletes and coccara—and morels—will have enough wetness to fruit in abundance.

Reconnoiter excursions to around the 3,500' foot elevation level will be starting by the time you read this. For you new to Sierra mushrooming check out logging areas and burns for morels and, later, under pines for spring boletes.

Spring porcini are not difficult to find, especially compared to morels. Every year new patches are spotted by experienced hunters simply by stopping their vehicles and going for short hikes into likely areas. We find these new spots by first noticing exposed caps, mostly in sandy areas. More can be exhumed nearby.

Morels can be exasperating for the inexperienced but some folks have spots where naturals continue to fruit year after year—and they are very lucky. Here in Sonoma county blondes began to come up in old apple orchards a couple of weeks ago. Friend of mine in Sebastopol sees them every year when he mows the borders of his front yard with a high weed mower. He phoned me that first time to identify them for him. Doesn't do that anymore.

In the mountains, too, there are places where morels have appeared for years. If the job of this column was to pinpoint where these patches might be I would have several fewer close friends.

So get up and out and find your own private place, a place to call your own, with all the pride (and onus of "ownership") that can come with that. Morels and boletes, literally year after year, have been picked in the very same places in the Sierra and these were first found by simply walking around with eyes wide open.

For the adventurous (and maybe not so successful mushroom hunter?) another fun exercise up in those mountains can be to pick elderberry flowers and make a pretty decent sparkling wine from them.

Conifer, shrub, and wildflower i.d. are great hobbies too.

That's all for now folks!





Membership and Subscription Information

To join the MSSF and receive this newsletter, send a \$25 check (\$20 for seniors (65+) and full time students) made payable to **MSSF** to:

MSSF Membership, Attn: Jane Collier
c/o The Randall Museum
199 Museum Way
San Francisco, CA 94114

Please include contact information: home and/or work phone numbers and e-mail address. New and renewal memberships will be current through December of each year.

MSSF members may also join or renew membership in the North American Mycological Association at a reduced rate by including with their MSSF check a separate check for \$32 payable to NAMA.

To change your contact information or for further questions regarding membership and subscriptions, e-mail Jane at: jcollier@stanford.edu or call (415) 641-6068.

Cultivated Enoke in Korea



Upcoming Forays



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, sasakiton@aol.com.

Saturday, May 8: Morel Foray at Undisclosed Area: Norm Andresen, David and Jeanne Campbell will lead a foray to a destination undetermined at publication time. Please contact leaders a week or two before foray date, Norm Andresen at 510-278-8998 or email at n.andresen@comcast.net and David and Jeanne Campbell at 415-457-7662 or send email to: yogidog@comcast.net



Annual San Jose Family Camp Morel Foray

Our annual visit to San Jose Family Camp begins on Friday, April 30 and last through Sunday, May 2. We will hunt morels in their natural habitat, especially important this year with no large local burn area to be found. In addition to morels, we will look for false morels, spring boletes, coral mushrooms among others. For those who have never hunted in the Sierra at this time of the year may also be treated to finding the red snow plant.

The wonderful thing about this foray is that it takes place in the Sierra Mountain near Yosemite National Park. Morels may be harder to find than in a burn area but with spring in the air, snow fed streams (but snow only at higher elevations), vegetation turning green and dogwood starting to bloom, you couldn't find a better time to be in the mountains. You can even visit Yosemite National Park (but remember national parks are off limits to mushroom hunting).

The San Jose Family Camp is located off State Highway 120 about 10 miles west of the Oak Flat entrance to Yosemite National Park and also west of Evergreen Road going to San Francisco's Camp Mather. Lodging will be in tent cabins having wooden floors and electric lights. Bathrooms with hot water and showers are located nearby. Meals prepared by camp staff are served at the dining hall located off the Tuolumne River. The menu includes barbecue chicken for Friday dinner and prime rib roast for Saturday night. In the past people have contributed mushrooms which other volunteers have cooked for appetizers. People have looked forward to this event and hopefully it can be repeated.

Program will start on Friday night with NAMA photo slides on poisonous mushrooms, cooking and a review of mushrooms that come up in the spring. On Saturday morning, Mark Lockaby, Tina and Thomas Keller will lead groups to find the elusive fungi. That evening George Collier, who with his wife spent some time in the Mayan area of Mexico, will show his slides and talk on "More on the Highland Maya: Religion and Rum" This will be another facet of Mayan life described at last year's foray which people enjoyed and was warmly received.

Registration for the foray which includes the above program, two night lodging and six meals is a bargain for members at \$95 and \$55 for their children. For nonmembers, the fee is \$115. Please register early. Registration will close April 21. To register, send check made out to MSSF to Tom Sasaki, 1506 Lyon Street, San Francisco, CA 94115 or for more information, call 415-776-0791 or write email to sasakitome@aol.com



Elfin Saddles





Culinary Corner

from Grandma's Attic

Mushroom Spring Rolls

1 1/2 cups	dried Shiitake mushrooms
1/2 pound	fresh button mushrooms
1 tablespoon	cornstarch
1 cake	tofu, crumbled
1 tablespoon	ginger root, finely grated
3 cloves	garlic, minced
2 tablespoons	soy sauce (brewed)
1 tablespoon	hoisin sauce
1 teaspoon	sesame oil
1 teaspoon	sugar (optional especially if you use mirin)
1 tablespoon	Chinese rice wine, mirin or sherry
1/2 cup	scallions, chopped
Spring roll wrappers	
1	egg white beaten
Oil for deep-frying (Peanut or Soy are traditional)	

1. Soak the dried Shiitake mushrooms for 30 minutes in hot water to cover. When soft cut off and discard the stems
2. Wipe and trim the fresh button mushrooms.
3. Finely chop both the fresh and dried mushrooms.
4. Mix all the remaining ingredients except wonton wrappers and egg white and oil for frying.
5. Simmer mixture on medium low heat for 30 minutes. Drain and reserve liquid. Leave the mixture to stand for 1 hour or over night to cool.
6. Place the spring roll wrappers on a worktop or chopping board. Take about a teaspoon or so of the mixture and place on a spring roll wrapper. Brush the uncovered part of the wrapper with egg white. Fold in two corners across the filling and roll up tightly from one of the unfolded corners, dampen the last corner with egg white and press to secure.
7. Heat the oil until very hot and fry 3-4 rolls at a time. Turn the rolls occasionally using a skimmer or slotted spoon. Fry until golden brown. Drain on paper

You can use any thing you like for a dip. Hot Chinese mustard is good or make a quick dip from the reserved liquid. Mix the liquid with enough hoisin sauce to thicken.



Shiitake

Lentinula edodes

Many markets stock shitake mushrooms, fresh or dried. Fresh shitake mushrooms are intensely flavorful and typically high-priced. The prices have come down after they started growing them commercially here in California. Dried shitake mushrooms have highly concentrated nutrition by weight, but because of their strong flavor they are used in much smaller quantities. They must be soaked before cooking and the tough stems removed. Asian markets have different grades of dried Shitake mostly related to the size and condition of the fresh mushroom before drying. Dried Shiitake keep for a long time and make it possible to enjoy the flavor and texture throughout the year.



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mycena-news@mssf.org

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MSSF Calendar, April, 2004

Monday, April 5: Culinary Group's Monthly Dinner: 7:00 PM. Meeting and dinner at the Recreation Room of the Hall of Flowers in Golden Gate Park, San Francisco. We will be having a Moroccan Lamb Roast. For reservations or information, please contact Jeanne Campbell at (415 457-7662 or email to: yogidog@comcast.net)

Tuesday, April 20: General meeting: Doors open and identification starts at 7:00 PM and the meeting starts at 8:00 PM. See page 1 for featured speaker.

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 reservations and information, contact: Tom Sasaki, Foray Coordinator (415-776-0791 or email to: sasakitom@aol.com).

Monday, May 3: Culinary Group's Monthly Dinner: 7:00 PM. Meeting and dinner at the Library of the Hall of Flowers in Golden Gate Park, in San Francisco. For reservations or information, please contact Jeanne Campbell at (415 457-7662 or send email to: yogidog@comcast.net)

Saturday, May 8: Morel Foray at Undisclosed Area: Norm Andresen, David and Jeanne Campbell will lead a foray to a destination undetermined at publication time. Please contact leaders a week or two before foray date: Norm Andresen at (510-278-8998 or send email to: n.andresen@comcast.net) or David and Jeanne Campbell (415-457-7662 or email to: yogidog@comcast.net)

