

Next Meeting July 8, 2002

# SPORES Afield

The newsletter of the Colorado Mycological Society

July 2002

## Notes from the LAMS Mushroom Fair - 2002

By: Joanna Seward

In February we attended the Los Angeles Mycological Society's annual mushroom fair to see what LAMS does and especially to see some California mushrooms. The venue, Ayres Hall on the grounds of the Los Angeles County Arboretum, is a more basic facility than that used by CMS for its fair, and the displays were not as extensive due to very dry conditions though, amazingly, a display of desert mushrooms was included. Who knew? Most of the attendees appeared to be members as were we, having recently joined, and name tags were waiting for us. After wandering around the displays, ID table, books, T-shirts, and similar familiar components of a fair, we enjoyed a talk on mushroom cultivation followed by a hands-on workshop, stuffing inoculated straw into plastic bags we could bring home. Just after noon there was a lively, wonderfully flamboyant cooking demonstration by Chef/Culinary Advisor, Jeff Kramer. He prepared huge chanterelles, which he'd picked himself the previous day, for Bruschetta which we all got to eat. These were outstanding! Later in the afternoon a lecture on mushrooms of California was scheduled which we were sorry to have to miss, really wanting information on local edibles since all I'd found in the park after a rain were quite lovely and very poisonous hebalomas. There is no book specific to California mushrooms and the LAMS Membership Chair suggested David Arora's *Mushrooms Demystified* since it includes them. Forays to the Cleveland National Forest

and the Chumash Indian Reservation were scheduled before the fair and a traditional foray to Chiquito Basin after the fair was planned despite the dry conditions--February proved to be the driest in 30 years. There is a morel foray planned in May to the San Bernardino Mountains.

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## Speaker for the July meeting:

Dr. Marc Donsky

"Essentials of Mushroom Cultivation"

Marc A. Donsky will present a slide lecture illustrating essential techniques for the cultivation of edible mushrooms. Topics covered will include; germination of spores, agar plating, growth of spawn on grain, growing on compost, wood, and sawdust mixtures. The floor will be open to any of your cultivation questions.

Marc A. Donsky received a BS in Chemistry and a BS in Biology from the University of Arizona at Tucson. Marc obtained his MS in Organic Chemistry and his Ph.D. in Biochemistry from the University of California at Berkeley. He has been studying and cultivating mushrooms for more than 20 years and is the founder of Mammoth Mountain Mushrooms; a company that cultivates medicinal mushrooms. As a Senior Instructor of Chemistry at the University of Colorado at Denver he is currently involved in research projects looking at the immunostimulatory properties of various mycelial based neutraceuticals; and the biology and chemistry of brown rust fungus (a basidiomycete) infection of white pine.

## Upcoming Events

- July 8<sup>th</sup>** Speaker: Marc Donsky,  
"Mushroom Cultivation"
- Aug. 4<sup>th</sup>** Foray, Jon Sommer,  
Foray Location to be Announced
- Aug. 9<sup>th</sup>** Foray with Jack States, collecting  
for the mushroom fair
- Aug. 10<sup>th</sup>** Mushroom fair setup
- Aug. 11<sup>th</sup>** Annual CMS Mushroom Fair at  
Denver Botanic Gardens
- Aug. 12<sup>th</sup>** Speaker: Jack States,  
"Mystery and Magic in Mushroom  
Identification: Will the REAL  
Boletus edulis please stand up"
- Aug. 16-18** Crested Butte Wild Mushroom  
Festival Weekend
- Aug. 22-25** 21st Annual Telluride Mushroom  
Festival  
Call: 303-296-9359  
Write: Fungophile  
Box 480503  
Denver, CO 80248-0503
- Sept. 9<sup>th</sup>** Speaker: Nancy Smith Weber,  
"Morels"
- Oct. 14<sup>th</sup>** Speaker: Terri Jensen and Karen  
Aguiar, "Medicinal Mushrooms"

## Tentative Events

### Dates and Locations to be Announced

- July** Jason Salzman,  
City Mushroom Foray
- Late July** Larry Renshaw,  
**Early August** Possible Campout and  
Foray
- 1 Before &  
1 After Fair** Ellen Jacobson,  
2 Foray's
- First Saturday  
in August** Tom Ruzicka,  
Foray

## Fair time

It is that time again, when we would like volunteers for the fair, we all had great fun last year, setting up everything, and would like to have as many volunteers as possible.

**Coolers are also needed:** Any members who can bring coolers on Saturday August 10th, please do. We will need many of them since we no longer have access to the refrigerators at the Botanic Gardens. They should be labeled with your name and phone number. Ice should be in plastic bags. Take them to Mitchell Hall at the Botanic Gardens between noon and 4:00 PM on Saturday August 10th. Please contact the fair director as soon as possible so she knows how many to expect.  
**Please call Jae Lucus at: 303-697-4417**

**For more information related to CMS, contact:**

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## *Spores Afield*

*Spores Afield* is published from March through October by the Colorado Mycological Society. CMS dues are \$23 for the first year and \$20 thereafter. Send membership dues to CMS Membership Chair, Box 9621, Denver, CO 80209. All CMS members receive *Spores Afield* as part of their membership.

CMS is an associate member of the North American Mycological Association.

CMS website: <http://www.cmsweb.org>

## Playing with Thor

by: William N. Windsor

March 31, 2002

It was early August and I had spent the afternoon in the mountains, visiting one of my favorite grounds to collect King Boletes (*Boletus edulis*). Although you can find this mushroom around Lodgepole Pine, my favorite hunting grounds are in mixed forest, especially if there is a lot of Ponderosa Pine and Douglas Fir. The most productive environment for *Boletus edulis* that I have found are wooded glades with rolling hills and flat spots and where water runoff is shallow and wide. Look for it in the flat areas although it will also fruit on hillsides within the drainages.

I had already filled my basket with King Boletes and a few choice *Agaricus silvaticus* when I noticed that the steep hillside where I had ended my search appeared to flatten out again about 60 feet higher up. It was then that I first heard the distant rumblings of thunder and I paused for a moment to weigh my choices.

Hmmmmmm, mountain thunderstorms tend to roll in quickly and can be quite violent. I looked at the sky and could see that the clouds were moving quickly and were dark grey and heavy, the storm was fairly close. I had collected a decent amount of mushrooms and my little truck was about 1/3 mile away. The smart thing to do would be to return to my truck now before the storm arrived and I placed myself at risk of a lightning strike. On the other side of the equation was a promising looking unexplored area nearby to a favorite foray zone. Not being particularly bright, I decided to trudge up the hill to check out the flat area above. My pace was fast, spurred by the ominous rumbling from the sky.

Upon reaching the flat, I could see it was a great looking environment. I immediately spotted large numbers of those most commonly depicted mushrooms, *Amanita muscaria* or Fly Agaric. What a kewl mushroom! As its common name suggests, this mushroom makes an excellent poison to rid a household of flies. When I lived in

a mountain cabin, I would make a wet paste of crushed dried *Amanita muscaria* and milk and place this mix in jar caps on my window ledges. It worked well to eliminate pesky summertime bugs inside the cabin.

There is something very special about the look of these mushrooms and I stopped to examine a couple of particularly beautiful specimens. It is no wonder to me that there is a long record of peoples eating this mushroom despite the fact that it is a poisonous species. An *Amanita* in its prime just looks spectacular and I swear, the mushroom has an aura about it. Looking at these mushrooms, I lingered to contemplate its association with man over the ages.

To the early Scandinavians, this was indeed a magic mushroom. *Amanita Muscaria* is an hallucinogen. It is eliminated from the body through the kidneys and the urine from someone who has ingested the mushroom is equally an hallucinogen. Reindeer are extremely attracted to the smell of urine passed after eating the mushroom and ancient ceremonies were developed to carry and pass the power of this mushroom from summer forays to winter hunting.

I have also read accounts of Norse warriors ingesting *Amanita muscaria* before going into battle. Eventually, the Vikings labeled the mushroom the Bizzerker Mushroom and banned it's use. It seemed to spur the fighters into killing everything in sight.

KA POW!

The simultaneous flash and thunder clap of lightning jerked me from my daydreaming of mad Norsemen and shamanistic rights. That was close! Rain started to fall and I realized that I had lingered too long. Making my way downhill to my truck another bolt of lightning struck very close uphill from me. I quicken my pace and then a bolt of lightning struck a tree about 50 ft. in front of me. The tree burst into flame with bits of bark blowing out in all direction. Yikes! I suddenly had a small moment of enlightenment that all my contemplation of tripping Norsemen had

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somehow brought me to the attention of the Norse God Thor. Thor was doing a little target practice and I was the target!

KA POW!

Yikes, Yikes, Yikes! Thor's aim is good! This is much too close! I am now running full speed for my truck spilling mushrooms as I run. With great relief I reach the truck in just a short while. I do not linger within the forest, but drive to the fire station to report the burning tree. At the station we round up some field equipment and return to the area in the small 6 wheel drive engine. By this time the storm has passed and we quickly extinguish the small blaze.

To this day on every foray, I keep a nervous ear for the sound of distant rumbling. After all, once you have played with Thor, you never know when he may want a re-match.

Epilogue: For those reading this essay who may contemplate recreational ingestion of Amanita muscaria, I feel obligated to include a warning about its use. The Amanita-family of mushrooms includes some of the most deadly poisonous species. In addition there is ample documentation of people experiencing severe panic attacks, heart problems and even some cases of coma after ingesting Amanita muscaria. This is not a family of mushrooms to play with.

### Continued from page 1:

LAMS meets monthly from October through May at the Natural History Museum of Los Angeles County and welcomes guests and visitors. Their website is [www.nhm.org/lams](http://www.nhm.org/lams). In addition to their newsletter, **The Sporeprint**, LAMS information not included or planned between newsletters--forays for instance--is e-mailed to members.

The April issue of **The Sporeprint** contains Jeff Kramer's Bruscetta recipe (reprinted here with his permission) for CMS members to enjoy.

## Chanterelle Bruscetta

### Ingredients:

1 lb. Chanterelle mushrooms, washed, sliced thin.  
1/4-1/2 cup Olive oil.  
3 Shallots, fine dice.  
4 Garlic cloves, fine dice.  
4 Roma tomatoes, seeded and diced.  
1 large bunch basil, shredded.  
Salt and black pepper, to taste.  
Favorite stock (vegetable, chicken, mushroom...).

### Procedure:

#### Baguette:

Slice the baguette 1/4 inch thick.  
Rub a little olive oil and garlic on each one.  
Place in an oven on broil and toast the baguette.  
Remember not to walk away from your oven, you might forget they are there! It has happened many times.

#### Chanterelle Mixture:

Heat the sauté pan for a good 15 minutes. add the chanterelles and then half the oil. Cook the mushrooms until all of the liquid has evaporated. Add a little more oil, shallots and garlic. Cook until there is a nice caramelization forming in the bottom of your pan. Once this occurs then add your tomatoes. If there is not enough liquid coming out of your tomatoes, then add a touch of stock to loosen your mixture. Remember you do not want a soupy consistency but more of a thick ragout. Finish with basil and salt and pepper to taste. Add a touch more olive oil. ENJOY!

By: Jeff Kramer

## End of Season Fungi Feast

On the following two pages you will find the menu and sign-up sheet for this wonderful meal. This event fills up quickly so if you want to attend sign up early.

# END-OF-SEASON FUNGI FEAST!

## *The 2002 Menu*

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### *Appetizers*

*Tasting of Three Wild Mushrooms*

### *First Course*

*Wild Mushroom Ravioli in Parmesan Cheese Sauce*

### *Salad*

*Tempura Oyster Mushrooms on Greens with  
a Honey Dijon Dressing*

### *Entrees*

*Braised Organic Nebraska Buffalo in Porcini Broth  
with Roasted Vegetables and Porcini Mashed Potatoes*

*or*

*Roast Rack of Pork with Maple Mustard Chanterelle  
Cream Sauce and Caramelized Sweet Potatoes*

*or*

*Pan Fried Trout with Lobster Butter on Wild  
Mushroom Cakes and Seared Spinach*

### *Dessert*

*Chocolate Decadence with Raspberry Sauce  
Coffee or Tea*

*Boulder Cork  
3295 30th Street  
Boulder, Colorado*



*Boulder Cork*

established 1969

# END-OF-SEASON FUNGI FEAST!

CMS is planning the end-of-season mushroom banquet at the *Boulder Cork* on Sunday November 3. Doors open at 5:00 PM and dinner will be served at 5:30 PM. All members and friends of CMS are cordially invited to attend.

The *Boulder Cork* restaurant has provided quality food and excellent service since 1969. The food at the *Boulder Cork* is an impressive display of creativity and variety, masterminded by Chef Jim Smailer. He has been the Chef at the *Boulder Cork* for the last fifteen years. Jim has developed a passion for wild mushrooms, both in the woods and the sauté pan. He believes mushrooms should be prepared simply to let their own flavor be fully appreciated. Seating is limited to 65 people.

To reach the *Boulder Cork* from Denver, Go on I25 North to the Boulder Turnpike [US36]. Take Highway 36 to Boulder. Exit on to Foothills Parkway in Boulder. Go North on Foothills through town. Turn left on Valmont & then right on 30th Street. The restaurant will be on your left.



*Boulder Cork*  
3295 30th Street  
Boulder, Colorado

Please Register Me/Us For the End-of-Season Fungi Feast  
Sunday, November 3

The cost of the End of Season five course dinner is \$45.00 per person, including tax and gratuity. Please mark your preference of entree in the boxes below. Space is limited. Don't miss out on this special dinner! Payment in full is required to reserve your place. Please make your check payable to the Colorado Mycological Society. Cost of the dinner for non-members is \$55.00 per person, including tax and gratuity. Reservations from non-members will be accepted after Labor Day on a space available basis.

Person 1:  Braised Buffalo     Roast Rack of Pork     Pan Fried Trout  
Person 2:  Braised Buffalo     Roast Rack of Pork     Pan Fried Trout

Name[s]: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/St/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_

*Mail this registration to:*

Tom Ruzicka  
223 North Cedar Brook Road  
Boulder, CO 80304  
Phone: (303) 447-2740

## Mushrooms, Radioactivity and Hormesis

By Cookie Shannon

It's September in France. The tourists have left the crowded beaches along the Mediterranean and the boutiques of Provence. French families are back home buying endless school supplies. Shopkeepers and chefs complain about "la saison morte". The tourists may have left, but the mushrooms have begun to appear in the local markets and restaurants. Rural roads all over France are lined with cars. The forests are swarming with locals (armed with baskets, bags and sticks) trying to find enough each day for the family's needs and to sell at the local market. The not so locals will be trying to sneak carloads of bolets and chanterelles across borders. The big question since Chernobyl has been "Do we want to eat our harvest?" "Do we want to eat the wild pigs that eat these mushrooms?"

Analyses published in 1997\* on wild mushrooms collected in eastern France, the area of the highest fallout from Chernobyl, indicated that some mushrooms were still accumulating considerable amounts of cesium 137, especially those with superficial mycelia. (Cesium 134, which has a shorter life, had almost disappeared.) Among those with a count from 1000 to 3000Bq/kg in 1996 were: *Cantharellus lutescens*, *Rozites caperatus*, *Hydnum repandum*, *Lepista nuda*, *Cantharellus tubaeformis*, *Xerocomus badius*, *Suillus luteus*, *Laccaria amethystea*, *Tricholome terreum*.+ (*Lactaire deliciosus* registered between 400 to 1000 Bq/kg.), (Since 1999, the permissible amount of cesium 137 contamination in mushrooms allowed to be imported into European Union countries is 600Bq/kg of fresh matter.) One analysis of 379 mushrooms indicated 50 with cesium contents higher than 100 Bq/kg. Of these, nine mushrooms from Bulgaria were refused importation into France because their cesium contents exceeded the limit of 600 Bq/kg. There were 3 trumpets of the death with cesium contents of 948, 1500 and 2100 Bq/kg and 6 hedgehog mushrooms with cesium contents of 602, 632, 880, 897, 1564 and 2487 Bq/kg. HYPERLINK (<http://www.finances.gouv.fr/DGCCRF/activites/labos/1999/radioactiv.htm>)

([www.finances.gouv.fr/DGCCRF/activites/labos/1999/radioactiv.htm](http://www.finances.gouv.fr/DGCCRF/activites/labos/1999/radioactiv.htm))

Fast forward to the year 2000, 15 years after Chernobyl, and another set of analyses\*\*, done this time on wild mushrooms collected in the Vaud (Switzerland). Once again, higher than normal levels of cesium 137 were found, especially in *Xerocomus badius* and *Hydnum imbricatum*.

It has been estimated that it will take 30 years to lose half of the radioactivity and 50 years or longer for normal levels of radioactivity to reappear in these mushrooms that are now designated radioactivity accumulators. Should we eat them? Maybe no, maybe yes. For an explanation about why we shouldn't be concerned, read about the theory of Hormesis. (HYPERLINK <http://www.lowdose.org/pubs/ehp/members/calabresefull.html>), (<http://www.lowdose.org/pubs/ehp/members/calabresefull.html> and <http://www.ansto.gov.au/ainse/paper2.html>.) What is radiation hormesis? Many minerals and vitamins are toxic for organisms at high exposures but small amounts can give better performance or fitness than at zero exposure. Surprisingly, there is accumulating evidence for radiation hormesis. If natural selection favors maximum fitness of organisms in their habitats, and hormetic agents are a normal part of our habitats (including some metals that are toxic at high concentrations), perhaps small amounts of radioactivity in mushrooms are not as harmful as we might think. You be the judge!

\*If you search Google using radioactivity+mushrooms, you will find more sites. Those I have used can be found in a Google search using champignons+radioactivite, radioactive or radioactif. They can be automatically translated into English.

Commission de Recherche et d'information independantes sur la radioactivite (CRII- RAD) Fiche CRII-RAD n°3 (3,81 Euro) Radioactivite: contamination des champignons De puissants capteurs de pollutions - Echelle de contamination (faible, moyenne, elevee) et fiche de resultats par espece et par departement. On peut l'obtenir aupres de: CRI-Rad 471 Avenue Victor Hugo. 26000 Valence tel:0475418250

## July/August Cookbook Sale

These books are being offered to members at a greater discount than our usual 10% off list price. Some quantities are limited, so if you want a particular book, please call or e-mail to reserve it. e-mail to: [cookie@theshannons.net](mailto:cookie@theshannons.net) or call: 303-417-9961

A Cook's Book of Mushrooms	\$24.00
From Duff to Dinner	\$10.75
The Gourmet Kitchen Mushroom	\$8.75
Hope's Mushroom Cookbook	\$16.75
Joe's Book of Mushroom Cookery	\$15.75
The New Savory Wild Mushroom	\$17.00
The Portobello Cookbook	\$12.50
Totally Mushroom Cookbook	\$4.00

## Forays:

Unless other wise announced all forays leave from the Morrison exit on I-70 at 9:00AM. Meet in the parking lot on the north east corner of that exit about 15 minutes early and be sure to check in with the foray leader and fill out a release form. At that time the location will be announced. Car pooling is highly recommended from this point because most foray locations do not have enough parking for a large amount of cars and it's a great way to meet someone new. The forays are open to members only; if you are not a member of CMS you can sign up on the spot for \$23.00 and join in the fun.