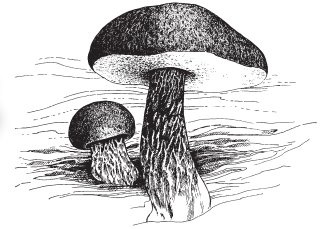
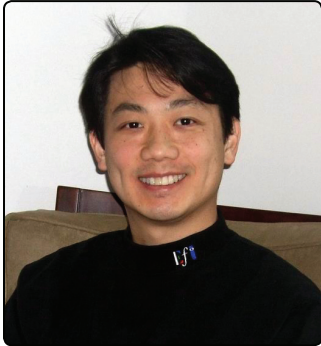


# Mycena News



The Mycological Society of San Francisco February 2010, vol. 61:02

## February 16<sup>th</sup> MSSF Meeting Speaker



**Robert Chang**  
*All Things Truffle*

Robert Chang is Managing Director of the American Truffle Company, which is dedicated to applying rigorous scientific methodologies to help people grow European truffles and maximize yields. At the February General Meeting, Robert will talk about all things truffle – starting with a brief discussion of their natural habitats and state of the worldwide truffle supply/demand, to cooking with truffles, and the reality behind truffle oils. The bulk of the talk will be on the science of truffle cultivation, with a focus on important factors that determine cultivation success. Robert will also touch upon the unique ways ATC has been able to gather, analyze and mine its substantial amount of field data, which forms the basis of ATC's ever-improving scientific methodologies and best practices, in addition to continued ongoing research in the laboratory.

Based in San Francisco, Robert is a foodie who loves to cook, especially with all kinds of mushrooms. Prior to founding ATC, he held a number of management roles in product development, sales and marketing in high tech. Robert earned his B.S., M.S. and MBA from Stanford University.

For further information, see the American Truffle Company website at: [www.americantruffle.com](http://www.americantruffle.com)

## Mycodigest: What's New?

Else C. Vellinga

In 2009 two new moss species were described from Yosemite, several southern California lichen species were named (e.g., *Caloplaca obamae*, *Cladonia maritima*, *Lecanora austrocalifornica*, *Lecanora munzii*, *L. simeonensis*, and *Ramonia extensa*), so, what about the mushrooms? Do we have names for all the species we encounter, or are many still nameless?

One new species of mushroom published last year was *Pseudobaeospora aphana*, a small gilled mushroom that was discovered during the 2007 Mycoblitzz at Point Reyes. *Pseudobaeospora* species are small with subdued colors, often including some lilac, and have white, small, and slightly thick-walled spores (but to recognize them you have to look at really mature spores), which become red-brown when treated with iodine solution. This rather obscure genus has a fascinating history.

Up until ten years ago only a handful of species were known. Then, Kees Bas, a Dutch mycologist, examined the two collections in the national herbarium in the Netherlands and compared them to the two known European species. Not only were the two Dutch collections different, but neither fitted any known species. After this shocking discovery Kees asked his colleagues for more material of this now enigmatic genus. He ended up describing 14 new taxa, and some collections



A new species in the genus *Leucoagaricus*, growing in coastal Mendocino county, to be described as new in 2010. Photo by John Lennie.

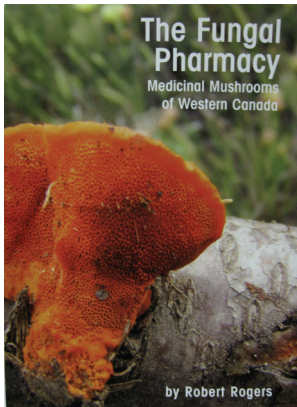
were only given provisional names because there was not enough material. One of his discoveries was that some species stain dramatically with KOH – either green or red, or yellow-green, or blue. After this *Pseudobaeospora* was definitely on the map, and now around 30 species are known and named worldwide. I was fortunate to be working in the room where these discoveries were made, so recognizing a *Pseudobaeospora* species as such has become second nature.

Recently Dennis Desjardin named another species in this genus. *Pseudobaeospora stevensii* (named after Fred Stevens), has been found on the Peninsula and in the North Bay. It is one of those KOH-staining species, whereas *Ps. aphana* is not so distinctive. In other words, the Bay area has gone from zero to two species in this genus in the course of five years!

Continued on page 5

Mycodigest is dedicated to the scientific review of mycological information.

## What's Bookin'?



*The Fungal Pharmacy* is a valuable resource for mycologists, researchers, oncologists, environmentalists, ecologists, wild-crafters, scientists, and anyone else interested in medicinal mushrooms. From folklore to modern scientific analysis, the Fungal Pharmacy presents inspiration and hope for increasing the health and well-being of humans and other inhabitants of our planet.

Robert Dale Rogers teaches plant medicine at Grant MacEwan College, and the Northern Star College of Mystical Studies in Edmonton. Robert has been a student of native plants and fungi from the Canadian prairies for over 35 years. He is a retired clinical herbalist of 18 years, amateur mycologist, and professional member of the American Herbalist Guild. He was recently nominated a Fellow of the International College

of Nutrition. Robert is the author of six volumes of native and cultivated plants, called Sundew, Moonwort Medicinal Plants of the Prairies. He has written Rogers' Herbal Manual that accompanies a seven-volume video series with Mors Kochanski on edible and medicinal plants of the Boreal Forest. Robert is a consultant to the herbal, mycological and nutraceutical industries, and is past Chairman of the Alberta Natural Health Agricultural Network.

This book was originally self published as a 32-page manuscript in April 1999. The copyright of the first edition is July 2006. This is a very informative book covering hundreds of medicinal fungi. It includes the use of fungi for essential oils, homeopathy, and even vibrational essences; as well as their more traditional usage in decoction, powder or tincture form. There are some really nice charts in the back of the book that cover Medicinal Properties, Anti-Cancer Activity, Anti-Viral Activity, Anti-Microbial Activity and Immune Function. There are over 100 color photographs and drawings to augment the detailed descriptions of the various fungal species.

Martin Osis, Program Manager and Board Member of the Edmonton Mycological Society states: "One of my greatest pleasures is the opportunity to go on a nature hike with Robert Rogers. Robert's knowledge of plants and fungi can make ones head spin with medicinal, traditional, and culinary uses. I can highly recommend this book as your opportunity to take a walk with one of the most knowledgeable herbalists in North America".

*The Fungal Pharmacy*, (Medicinal Mushrooms of Western Canada, First Edition), ISBN 0-9781358-1-4 by Robert Rogers, B. Sc, RH (AHG), FICN. 2006, Prairie Deva Press, Edmonton Alberta Canada. Soft back, 234 pages, 6.5 X 9 inches, Price: \$39.95

This book will be available to check out from the MSSF library. ~ Curt Haney

---

## ANNOUNCEMENTS

### FUNGUS FAIRS

Point Reyes National Seashore Fungus Fair - Sunday, January 31<sup>st</sup>, 2010

Collecting Foray Saturday 1/30/2010 at the Bear Valley Visitor Center, followed by the Fifth Annual Fungus Fair Sunday 1/31/2010. Free lectures, displays, and exhibits.

For more information: [http://www.nps.gov/pore/playourvisit/events\\_fungusfair.htm](http://www.nps.gov/pore/playourvisit/events_fungusfair.htm).

### GUIDED FORAYS - CA AND ELSEWHERE

Morel Mushroom Hunting Club 1<sup>st</sup> Annual Truffle Foray - February 21<sup>st</sup>-23<sup>rd</sup>, 2010

Join Chris Matherly near Salem, OR for a weekend of hands-on truffle training (\$195).

For more information: [http://morelmushroomhunting.com/2010\\_Truffle\\_Foray.htm](http://morelmushroomhunting.com/2010_Truffle_Foray.htm).

NEMF 34<sup>th</sup> Annual Samuel Ristich Foray - September 23<sup>rd</sup> -26<sup>th</sup>, 2010

The Northeast Mycological Federation is holding its 2010 Sam Ristich Foray at Soyuzivka Ukrainian Cultural Heritage Center, in Kerhonkson, NY, just south of the Catskills. Registration is open now (\$150-\$390, depending on the plan you select). For more information go to their website: <http://www.nemf.org/files/2010/2010.html>.



February 2010, vol. 61:02

### Contributors:

Dorothy Beebe, Robert Chang, Pat George, Curt Haney, Alice Sunshine and Else Vellinga.

### Editing and Layout:

Dave Lubertozzi

*Mycena News* is the members' newsletter of the Mycological Society of San Francisco, published monthly from September to May.

Please e-mail photos, comments, corrections, and correspondence to [mycenanews@mssf.org](mailto:mycenanews@mssf.org).

To subscribe, renew, or make address changes, please contact Alvaro Carvajal: [alvaro.carvajal@sbcglobal.net](mailto:alvaro.carvajal@sbcglobal.net) or (415) 695-0466.

Past issues of *Mycena News* can be read on-line at [www.mssf.org](http://www.mssf.org).

## MSSF Officers 2009-2010

**President:** Dan Long  
(925) 945-6477  
[danlong@mssf.org](mailto:danlong@mssf.org)

**Vice-President:** Lou Prestia  
(510) 597-0214  
[lou@prestia.com](mailto:lou@prestia.com)

**Secretary:** Phil Brown  
(510) 526-4325  
[towltek2000@msn.com](mailto:towltek2000@msn.com)

**Treasurer:** Henry Shaw  
(925) 943-3237  
[shaw4@llnl.gov](mailto:shaw4@llnl.gov)



## Culinary Corner

Pat George

The Culinary Group's January dinner had a capacity crowd of happy diners for the "Rewards of Foraging" menu. There was a plethora of appetizers made with wild food, especially mushrooms, enjoyed by all.

Diners were given the opportunity to sample *Amanita muscaria* that had been processed to render it safe for the mind and body. Clearly signed and described, the modest amount of mushroom was presented in a vinaigrette as an appetizer. As one who of the few who tried a bit, I can say that it was OK but not especially exciting. More trouble than it is worth, in my opinion.

Our main menu featured abalone served with lemon linguine and vegetables, string beans with roasted morels, a beautiful green salad with pomegranate and pecans and a glorious tiramisu and, of course, coffee. Thanks so much to our energetic foragers who gather and bring wild food as well as to our other talented, creative cooks.

This has been a great year for chanterelles. Even featured in the latest issue of *Saveur* amongst the 100 favorite foods of readers, chanterelles are becoming a mainstay of today's gourmet menus. There are recipes galore. I've decided to include an unusual recipe here, partly because I recently made my own limoncello and have found nice amounts of chanterelles in the woods. This recipe was created by Chef Sunita Dutt who prepared it as part of the MSSF's 2005 Fungus Fair cooking demonstrations.

### Chanterelles Pickled in Limoncello Brine

#### Ingredients:

- ½ pound chanterelles
- 1-inch piece of ginger root, sliced thinly
- 2 slivers of lemon peel
- 2 teaspoons salt
- ½ teaspoon peppercorns

#### Brine:

- 2 cups of water
- 1 cup of limoncello
- 1 cup seasoned rice vinegar



#### Method:

In a stainless-steel pot bring the brine mixture to a boil, then add the ginger and lemon peel. Simmer for a minute. Add the chanterelles and simmer for two minutes while you sterilize your jar and top in boiling water.

Add salt and black peppercorns to the mushrooms. Taste the liquid for ample salt and seasoning. Place in the sterilized jar, close and store in a dark, cool place if you want them to cure slowly but if you want a quick cure store it in a sunny place. Best to wait for at least a week before you eat them.

The limoncello adds a bit of sweetness with a lemon accent which compliments the chanterelles.

Enjoy! -Pat

## Quick Start Foray Report

Alice Sunshine

Hi all. The Quick Start Foray on Sunday Jan. 17th was a great success. Monique did the organizing, and, even with the rain, about 15 of the 20+ who RSVP'd to her actually showed up. The rain obligingly stopped right at 10 am and started up again just after we wrapped it up.

The green bench where Sunset Blvd. dead ends at Golden Gate Park was a good meeting point. The cross street is Martin Luther King Drive, which confused some people because it used to have a different name, but everyone seemed to find it. There is a grassy area where we set up a table after the hunt for everyone to put their finds, look at them and talk about them.



Before we set out, we gave each person a copy of the "Quick Start Guide to Mushroom Identification," which walks beginners through some basic features mushroom hunters and scientists use to identify what genus and species of mushroom they have found (note: the Quick Start Guide is included on p. 4 of this issue and available for download from the MSSF website; please pass this on to your friends with an interest in fungi, and invite them on a foray! -Ed.).

There were a LOT of mushrooms every block, and quite a diversity of species. It gave them plenty to look at, and let people get the idea of looking at the features and the habitat. Back at the table, Monique and I both brought field guides and people tried out the keys.

You can get an idea of the species from the photos I took (the photos on this page are also by Alice - Ed.).

You can tell from the photos that Monique had a good time, along with everyone else. They all looked pretty surprised to see that *muscaria*!

I think we can keep using the same location for the Quick Start Foray for a while at least. One person suggested we do a Quick Start Foray especially for families with children - that would be fun!

See you next time - Alice.



# MSSF QUICK START GUIDE

## for Identifying Mushrooms

This questionnaire is designed to help you get started LOOKING at mushrooms. It is NOT designed to help you find edible mushrooms. It is safe to handle all mushrooms. However, no one should eat a wild mushroom unless an expert has identified it as edible.

Bring this sheet and any mushrooms you find to the MSSF general meeting at 7 pm on the third Tuesday of each month (Sept. - May) at the Randall Museum, 199 Museum Way, San Francisco. You can also attend one of our fungus forays, or come to the Fungus Fair; see the calendar for details. There will be plenty of folks there to help identify your finds!

More information is available on the MSSF website at:

<http://www.mssf.org>

### With this guide you will:

- 1 - Collect a mushroom.
- 2 - Identify a few basic features used by mycologists.
- 3 - Compare your mushroom to photos and descriptions of other mushrooms.
- 4 - Bring your mushroom and the completed Quick Start Guide to an MSSF meeting to discuss it with other MSSF members.

### 1 - COLLECT SPECIMEN

Dig one or, if possible, several specimens from the habitat. Use a small hand shovel or a knife. Be sure to collect the whole mushroom; dig down to get the bottom. Store the specimen in wax paper or a paper bag; no plastic.

### 2 - DESCRIBE YOUR SPECIMEN

Complete the questionnaire on the next page about your specimen. This questionnaire covers many of the main external features (morphology) that are visible with the eye.

**Make a spore print:** Cut the cap off a specimen. Place it gills down on white paper and cover it with a bowl for several hours. Notice the color of the print left by the spores. Notice the design formed by the dropping spores.

### 3 - COMPARE YOUR SPECIMEN WITH OTHERS ONLINE

Go online to [www.mykoweb.com](http://www.mykoweb.com) to see photos of fungi. Compare your mushroom to the photos. Read descriptions. Do the descriptions match features you noticed about your mushroom? Notice the variety of shapes, colors, and sizes. Notice the scientific and popular names.

### 4 - SHARE YOUR SPECIMEN

Bring your mushroom, questionnaire, and spore print to the Fungus Fair or the next meeting of the MSSF. Starting at 7 pm, there is an identification table where you can display your mushroom and discuss your questionnaire with others. Talking with folks about your "critter" is a big part of the fun in fungus.

## Mushroom Identification Questionnaire

### Size

- \_\_\_\_\_ How wide is the cap? Measure it.
- \_\_\_\_\_ How long and how wide is the stem? (also called the stipe)

### Color

- \_\_\_\_\_ What color is the cap?
- \_\_\_\_\_ What color is the stem?
- \_\_\_\_\_ What color are the gills or pores on the underside of the cap?
- \_\_\_\_\_ What color are the spores on the spore print?

### Shape

- \_\_\_\_\_ What shape is the cap? (dome, round, flat, funnel, cone, etc) Draw it in the box.
- \_\_\_\_\_ Is the stem wider or narrower at the bottom, or is it straight all the way down?
- \_\_\_\_\_ Is there a ring on the stem?
- \_\_\_\_\_ Is there a wide "cup" at the base of the stem, maybe underground?



### Texture

- \_\_\_\_\_ Does the underside of the cap have gills or pores?
- \_\_\_\_\_ Is the stem smooth or shaggy or textured?
- \_\_\_\_\_ Is the cap dry, slimy, sticky, smooth, bumpy?
- \_\_\_\_\_ Are there spots on the cap? How many and what color?
- \_\_\_\_\_ Are the edges of the cap shaggy (fibrous)?

### Habitat

- \_\_\_\_\_ Where did you find the mushroom? in grass, in dirt (soil), on leaves, under trees, or attached to wood?
- \_\_\_\_\_ Were there a lot of this kind of mushroom together, or was it alone?
- \_\_\_\_\_ If you know plants, what kind of tree or plant was growing near it?

## MycoDigest continued

A new *Suillus* will be described soon, one that also fruits at Point Reyes, and on Santa Cruz Island, though it is quite widespread. It was discovered not by its fruitbodies, but by the mycelium on the roots of trees. Pine seedlings grown in soil samples from different parts of the state (mountains, coastal regions) were inspected for ectomycorrhiza. DNA was extracted and one part was sequenced and compared with sequences from other *Suillus* species. Most *Suillus* species have spores that do not stay viable for long in the soil, but this species is different, and its spores survive the dry soil conditions so prevalent in the state of California. Older *Suillus* fruitbodies are hard to identify to species, as they all turn orange brown and look disconcertingly similar; DNA data can circumvent this problem; however, as DNA data are only available for a limited set of species, the authors of *Suillus quiescens*, the species in question, took great care to also compare the new species morphologically with those described previously from California and the southwest. The test was passed and the name *quiescens* was chosen as the spores lie dormant in the soil.

That is two new species. How many species of fleshy mushrooms do you think were described altogether in the U.S.A. in 2009? Think for a moment before you read on.

The answer, as far as I can tell, is six, or five if you have trouble accepting a crust as a mushroom. Only one new agaric, the above mentioned *Pseudobaeospora*, was described in the entire country! Two bolete species were discovered, one in northern Florida along the Gulf coast, and one other southeastern species, known from Virginia to northeastern Texas. Furthermore, two new hypogeous truffles were described, from Iowa, and there was one crust-forming species. Six is a very low number, but it is based on a literature search through thirteen different journals.

To put this in context, I did a quick search in *Mycotaxon*, an American journal that only publishes taxonomic articles on fungal species, and checked how many mushroom species were described in 2009 from Europe, a mycologically very well-investigated region, and from China, a country where a lot of work still needs to be done and many species are in the process of being discovered. Six new species were described from Europe, even though someone in France or the Czech Republic would not pick *Mycotaxon* as their first choice to publish in. Five new species from China were described, with again, more in other journals.

Of course, these numbers fluctuate very much from year to year. There are already several articles with new species descriptions waiting to be published in *Mycologia* alone (*Mycologia* is the journal of the Mycological Society of America).

The discovery of new species is only part of the work mycological taxonomists do. Unraveling phylogenetic relationships, discovering old names for present collections, and helping identification by providing keys are other facets.

For California as a whole, our knowledge is very imbalanced and incomplete. Some mushroom groups are well studied, recent keys are available, and new discoveries are hard to make. Boletes come to mind as an example of a relatively well-studied and well-known group.

The genus *Cortinarius* is at the other end of the spectrum, with species that are notoriously difficult to recognize, a complicated literature focusing on European species and keys that mostly rely on macroscopic characteristics for species recognition. Macroscopic characteristics tend to be harder to quantify and describe than microscopic characteristics, and this makes it difficult to compare notes.

A third group is made up of species for which we think we have simply adopted names from Europe or eastern North America. An example is *Amanita muscaria*, once thought to be all over the Northern Hemisphere, but now restricted to Eurasia and Alaska. 'Our' North American *Amanita muscaria* must be split up in several regional species, but there are no names yet for them. West-coast *Amanita franchetii* is another one, different from the European, real, *Amanita franchetii*, but not yet provided with a new, appropriate proper name.

The nice thing about field mycology is that everybody can contribute to the enhancement of knowledge. Collecting, documenting, photographing, and keeping specimens is the first step - and that can be done by all of us!

## References

- Bas, C., 2002. A reconnaissance of the genus *Pseudobaeospora* in Europe I. *Persoonia* 18: 115-122.
- Bas, C. 2003. A reconnaissance of the genus *Pseudobaeospora* in Europe II. *Persoonia* 18: 163-199.
- Bruns, T.D., L. Grubisha, J. Trappe, J. Kerekes and E. Vellinga, 2010. *Suillus quiescens*, a new species commonly found in the spore bank in California and Oregon. *Mycologia* 102(2) doi:10.3852/09-149
- Desjardin, D.E. 2004. A new species of *Pseudobaeospora* from California. *Mycotaxon* 90: 69-76.
- Vellinga, E.C., 2009. *Pseudobaeospora aphanis*, a new species from California. *Mycologia* 101: 243-247.



Else Vellinga is a researcher in Tom Bruns' lab at UC Berkeley, where she discovers new species of *Lepiota* and *Leucoagaricus* from California and beyond. She is also an avid knitter and mushroom dyer.

For more information on her research, and her prodigious list of publications, see:

<http://pmb.berkeley.edu/~bruns/people/ev.html>



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

First Class Mail  
U.S. Postage  
PAID  
Oakland, CA  
Permit No. 1451



February 2010, vol. 61:02

## MSSF Calendar February 2010

**Monday, February 1<sup>st</sup>, 7 pm - Culinary Group Dinner**  
SF County Fair Building (aka. Hall of Flowers), Golden Gate Park, 9th and Lincoln. We will have a fine winter menu featuring pork. Reservations are required and must be made no later than Friday, January 29th. The dinners are open to MSSF members and their guests. Contact Pat George at (510) 204-9130 or [plgeorge33@yahoo.com](mailto:plgeorge33@yahoo.com) to make your reservation. We limit the the number of diners to 60. Please remember to bring your own tableware and beverage and an appetizer to share. Our next dinner will be March 1<sup>st</sup>. April's dinner will be held on Monday, April 12<sup>th</sup>, as the preceding Monday is the day after Easter.

**Wednesday, February 3<sup>rd</sup>, 10 am - Marin Mushroom Hike**  
Join Terry Sullivan on his weekly foray. See Terry's website for complete details and contact information at:  
<http://biologyhikes.home.comcast.net/~biologyhikes/mushroom.htm>

**Tuesday, February 16<sup>th</sup>, 7 pm - MSSF General Meeting**  
Randall Museum, 199 Museum Way, San Francisco. 7 pm, mushroom identification and refreshments provided by the Hospitality Committee. 8 pm, Robert Chang presents *All Things Truffle*.

**The submission deadline for the March 2010 issue of *Mycena News* is Wednesday, February 17<sup>th</sup>. Please send your articles, calendar items, and other information to: [mycenanews@mssf.org](mailto:mycenanews@mssf.org)**

Addendum to *Mycena News* Jan. 2010, v. 61:01:  
In the *Mycodigest*, the photograph of the *Cordyceps* sp. on page 7 was not credited; the photographer was Philippe Silar, now in Thailand.

## MSSF Membership Corner

Thank you to all of you who have renewed your membership for 2010! As of January 1, we have a vibrant membership of 1,078 individuals and 30 institutions or societies with which we exchange newsletters. The table below shows a breakdown of our ranks as of December 31<sup>st</sup>, 2009.

Membership Type	Count
Adult	447
e-member	396
Senior	160
Student	46
Honorary	19
Life	10
INDIVIDUALS	1,078
Exchange	19
Institution	11
TOTAL	1,108

Take note of the new Password (below) for login to our "Members Only" section on the website at [MSSF.org](http://MSSF.org). If you have e-mail, consider signing up for our MSSF Yahoo Group discussion forum. It is very lively!

Meanwhile, we always welcome your suggestions to the Membership committee. Write us at [membership@mssf.org](mailto:membership@mssf.org) or call (415) 695-0466. Finally, special thanks to George and Jeanne Collier and Jeanette Larsen for helping staff the Membership desk at the Fungus Fair. -Al Carvajal

Effective February 1, 2010, a new Password will be required to access the Members-only content at [www.mssf.org](http://www.mssf.org). Login information is case sensitive. The new user ID and Password are:

ID: mssf Password: lepiota (Effective Feb 1)

The ID and password in use through Jan. 31 are:

ID: mssf Password: muscaria