# **SPORE PRINTS**

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY Number 489 February 2013



## HOW DID THIS CYTTARIA HARIOTI GET IN MY BEER? Larry Evans

Fungal Jungal, West. Montana Myco. Assoc., Jan. 2013 www.fungaljungal.org

Long before Charles Darwin observed Native American Yamanas eating the fungus *Cyttaria harioti*, the Mapuche people of the Southern Andes were using this Ascomycete to ferment Chicha, a beverage valued not so much for its alcoholic content (which assists in preservation) as for the source of digestible starches and polysaccharides. Chicha has been used for centuries, if not millennia, as a food staple in Native American societies. Varying with the local ecosystem, virtually indigestible starches in the form of corn (maize), yucca (manioc), potato, or quinoa are fermented by yeasts derived from these fungi, which are also traditionally used as a food source by native people from Tierra del Fuego to Bariloche. In some regions, *Lactobacillus* spp. and other microorganisms are added to the fermentative mix.

I've tried LlaoLlao (say: zhaojhao) several times; they are a large and fleshy fungus. Toothsome. Stewed in beef stock or fried in butter, chopped into a duxelle with onions and other mushrooms, dried and powdered and put in a soup, and sautéed with garlic in a stir fry—they were still just OK. Still chewy, gelatinous, and tasteless whatever you do.

I gave up and used them in a sushi format, with dulce de batata on club crackers. They were very wholesome. I also tried them with a bit of blue agave syrup or honey drizzled over, for those with a sweet tooth. This proved the most popular preparation, but hardly a display of the mushrooms strengths, more like a skillful dodging of its weaknesses as a foodstuff.

And so, we now see why the greatest value of *Cyttaria harioti* for humans is not found at the end of a fork but at the bottom of a barrel.

Sometime around the turn of the 16th century, a living culture of *C. harioti* arrived in the region of Germany known as Bavaria. Like ale brewers across Europe, they were plagued with a 30 to 50 percent loss of their brewing product due to contamination by bacteria, which were able to grow in the same conditions as the ale yeasts that were in common use at the time.

Now there is some debate about just how, or in what form, this fungus crossed the Atlantic and ended up on beechwood chips in the bottom of a brewmaster's barrel. Did the chicha given to a sailor in a clay jug make this incredible journey? Did an explorer with the sensibilities of a zymurgist chop off a basket full of these mushrooms and the tree they were growing on and drag them off to Europe?

My intuition is to credit the local Mapuche people, who were known to manipulate and cultivate various organisms, with recruiting these fungi from the forest to the brew pot, and that a very sharp Bavarian brewer (or guild, perhaps) got hold of this sailor's jug



and recognized the value of a yeast that could make beer at cellar temperatures. Bye bye bacterial competition. Lager beer is born.

Unlike ale yeast, the lager yeast ferments on the bottom of the tank and does just fine at 40 something degrees Fahrenheit, too cold for bacteria or anaerobes in general. No need to beseech the fickle gods of Lambi, or find a

Cyttaria harioti

hops powerful enough to discourage foul tasting bacteria. An invaluable discovery, one which permits people to drink Llao Llao, the lager malt beverage enjoyed all around the world now for over 400 years.

So how did we figure this out? Surely brewery records from Bavaria have not survived? Actually, a recent DNA analysis has indicated with 99.96% confidence that the yeast in lager beer is *Cyttaria harioti*. And so, at the end of the day, science has revealed the secret of "beechwood aged" lager beer.

And the secret is... It's not the European beechwood. It's an American beechwood. We will find this very same mushroom growing on the side of beech trees in Patagonia.

But wait a minute now—There are no members of the *Fagus* (beech) genus in N. America.

True that. It is a South American beechwood, *Nothofagus*, of which there are seven species, three evergreen and four deciduous. This genus is also found in New Zealand, and so are *Cyttaria* spp., where they are eaten and dispersed by birds, there being no native mammals to do this.

Every trip to South America brings in aspects of natural history that are unique to this hemisphere and highlights the biology that connects us to our sister continent.

Visit www.fungaljungal.org to get on the Fungal Jungal mailing list.

I once knew a hunter named Sven He only picked now and then He would pick without thinking Then think without picking His approach was totally Zen

-Charmoon Richardson

## **Spore Prints**

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## CALENDAR

- Feb. 12 Membership Meeting, 7:30 pm, CUH
- Feb. 19 Board Meeting, 7:30 pm, CUH
- Feb. 19 Spore Prints deadline
- Mar. 16 Annual Membership Meeting & Survivor's Banquet, 7:30 pm, Polish Home Association, 1714 18th Avenue, Seattle (Capitol Hill)

## **BOARD NEWS**

## Denise Banaszewski

The Board will clarify our student membership requirements during the membership sign-up process. We have six people running for the five Trustee positions that will be open. In addition, Denise Banaszewski and Milton Tam are running unopposed for Secretary and Vice President, respectively. Teddy Basladynski will start working with the Olympic Peninsula mushroom club on NAMA 2014 foray sites. We currently have 70 people on the waiting list for ID classes and are looking into options to help get more people into classes. This year the Survivors' Banquet will be held at the Polish Home, which can accommodate approximately twice the number of people as CUH, still roughly only 20% of our membership, so sign up early! A group from the Board will meet on January 30 to come up with criteria for a new Scientific Adviser. Paul Hill has volunteered to chair the photography committee. Thank you, Paul! Finally, we are considering whether we want to have a Spring Foray this year.

## **MEMBERSHIP MEETING**

Tuesday, February 12, 2013, at 7:30 pm at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle.

February's speaker is our very own **Danny Miller**. His enlightening and entertaining presentation is titled, "Mushroom Mythbusters—Fungal Fables Debunked." Danny, with his sharp wit and keen sense of humor, will share his insights, delights, and observations with you and will correct



Danny Miller

some of the misconceptions about fungi that you may have.

Danny first became interested in mushrooms in 2007 after seeing many strange and colorful creatures in the forest while hiking off-trail, and finally decided he had to find out what the heck they were. The more he learned, the more interesting they became, and his interest just hasn't stopped. Now Danny is on the PSMS Board of Trustees, is our Librarian and Education Chair, and is on the ID Committee. He is also a member of the Pacific Northwest Key Council and, with Ian Gibson, is a co-author of MatchMaker, the free PNW mushroom identification program for your personal computer. His major interest is in fungal taxonomy. When not exploring the woods and looking for mushrooms, Danny has directed and acted on the SecondStory Repertory stage, and has also worked with their Split 2nd Improv group. He has also served on the SecondStory Repertory Board of Directors since 2004.

Will members with last names beginning with the letters L–Z please bring a plate of refreshments to share after the meeting.

## ADVANCE NOTICE: ANNUAL MARCH MEMBERSHIP MEETING AND SURVIVORS' BANQUET (Note location change)

Saturday, March 16, 2013, at the **Polish Home Association** 1714 18th Avenue, Seattle, WA 98122, on Capitol Hill

We gather each year in March to congratulate ourselves for making it through another season of finding, identifying, cooking, and eating mushrooms. We also have our annual business meeting when our newly elected officers and trustees are presented. The theme this year will be "Clothes for the Compleat Mushroom Hunter," so please come dressed in your finest foraging outfits for the field and forest.

Last year at CUH we had a great turnout and ran out of seats for latecomers. To provide more space this year we are moving our event to the Polish Home Association on 18th Ave., just off E. Madison St. on Capitol Hill (see: http://www.polishhome.org/ DirectionsEng.htm).

The social hour will begin at 6:30 pm followed by a potluck dinner at 7:30 pm. Our potluck has a slightly different format this year. Chef Michael Blackwell will make his famous mushroom soup, and also a vegetarian and a non-vegetarian entrée. *Therefore, please make and bring an appropriate appetizer, salad, bread, or dessert as your contribution.* Be sure to list the ingredients and the species of any wild mushrooms included in your dish. We will have a banquet permit, so please feel free to bring beer, wine, or the beverage of your choice to accompany the meal.

We need your donations of new, old, or seldom-used mushroomthemed trinkets (also known as "tchotchkes"). We'll organize a silent auction with your donated items with all proceeds going to the Ben Woo Scholarship Fund. Please bring your items to the February meeting or to the banquet. We will also have door prizes. Raffle tickets will be available for purchase. The prize is an original framed photo taken by Machel Spence. The winner will be drawn at the end of the banquet.

There will be a \$5 per person fee to cover room rental and incidentals, and to indicate how many will be attending. **You must be pre-registered to attend.** Attendance will still be somewhat limited, so please sign up early to avoid disappointment! You can conveniently sign up and pay on-line for this event on the members' section of the PSMS website, or you can send a check, pay-



able to PSMS, to our Treasurer John Goldman at 5819 SW Horton, Seattle, WA 98116, before March 11. If you have questions, contact him at john.goldman@ comcast.net. We look forward to seeing you on the 16th.

## **PSMS MYCOPHAGY**

#### **Danny Miller**

Beginners Mushroom Cooking Class Tuesday March 19, 7–9 pm Douglas Classroom, CUH

This class will cover

- Sautéing fresh mushrooms
- Preparing dried mushrooms for cooking (reconstituting)
- Making mushroom soups

The class will consist of a one-hour introduction and lecture followed by one hour for demonstrating techniques and familiarizing participants with edible mushrooms varieties, details of cooking, sampling items cooked, wrap-up, and questions and answers.

The fee for PSMS members is \$30, and the class size will be limited to 25 people, so everybody can get a good view and personal attention.

Fresh *Agaricus*, shiitake, oyster, and other varieties of small mushrooms along with dried morels and dried boletes will be used.

To attend, sign up at psms.org on the "Event Registration" page.

## CULTIVATION GROUP FORMING

Milton Tam

Has growing mushrooms always been an interest of yours? Are you already growing your own mushrooms? Did you know that PSMS supported a cultivation group off and on over the years? Like all good mycelium, however, it went underground several years ago and has remained dormant, so it's high time to put the "cult" back in cultivation! I would like to invite our club members interested in cultivation to meet at CUH at 7:00 pm on February 12, 2013, 30 minutes before the start of our membership meeting. No experience is necessary! We will briefly discuss possible projects and schedule another, longer meeting. For those interested in a nonsterile mushroom cultivation method, I will bring enough material to make several oyster mushroom kits. Questions or can't make the meeting? Write me at miltontam@aol.com. Thanks.

## LAETIPORUS GILBERTSONII FOUND ON ASPEN

**Dick Bishop** 

MushRumors, Ore. Myco. Soc., Jan./Feb. 2013



Laetiporus gilbertsonii growing on an aspen tree Two summers ago, Sallie Tucker Jones and I began a fungal survey of aspen groves in the Conboy Wildlife Refuge, east of Trout Lake, Washington. This fall Sallie spotted what appeared to be a *Laetiporus* species (sulfur shelf/ chicken of the woods) growing eight or nine feet above the ground in a dead aspen

Sallie managed to get up onto a low, very weak looking limb (which I advised against), and carved off a small

piece of fruiting body. The piece she carved off had no pores, so I reached up and just managed to grab a limb that intersected with the lower part of the fruiting body. Pulling the limb free liberated a piece of the fruiting body that, thankfully, had a small area of pores

The size of the spores fell solidly between *Laetiporus conifericola* (usually found on conifer wood) and *Laetiporus gilbertsonii* (usually found on hardwoods).

Dr. Jim Ginns, a mycologist specializing in fungi that grow on trees, thought what we found was probably *L. gilbertsonii*. He noted that it hadn't been found on aspen, and that Joe Ammirati at the University of Washington might be interested in it.

I checked with Dr. Ammirati, and he was indeed interested, requesting a small piece for the herbarium at the University of Washington. He also advised that we publish a note indicating that *L. gilbertsonii* had been found on aspen—the reason for this article. In mycology, as well as in other sciences, if you don't publish your discoveries, it's like they never happened

## MUSHROOMS, RUSSIA AND HISTORY DOWNLOAD

MushRumors, Ore. Myco. Soc., Jan./Feb. 2013

R. Gordon Wasson

Available for downloading on the website of the New Alexandria Archive (www. newalexandria.org/archive) are two volumes of *Mushrooms, Russia and History* by Valentina Pavlovna Wasson and R. Gordon Wasson, copyright 1957, Pantheon Books, 433 pages. This electronic edition was scanned from the original and hand corrected by Igor Dolgov, Zachary Stark Jones, and Greg Golden.

The five chapters in the first volume, with plates and illustrations, include:

- Mushrooms and the Russians
- Mushrooms and the English
- Mushrooms and History
- Mushrooms for Murderers
- The Riddle of the Toad and Other Secrets Mushroomic

The section "The Riddle of the Toad and Other Secrets Mushroomic" continues in the second volume.

## MYCOPHILATELY IN MEXICO

Brian S. Luther

Mexico has issued four postage stamps fitting in the three main categories that I mentioned in an earlier article (Luther, 2012, June): fungi as the main illustration, mushrooms or fungi in the design of the illustration (MID), and stamps commemorating Dr. Alexander Fleming and/or related to penicillin.

I recently discovered the last item in the table below, which I'm delighted to bring to your attention and report on here, with notes on additional details further on in this article. It's not treated in the two latest mycophilatelic catalogs (McKenzie, 1997; Gimeno, 1999–2000).

All catalog numbers used are from the Scott Postage Stamp Catalogues.

<i>Cat.</i> #	Date	Value	Comments
1085	4/18/1975	80 c	Mushrooms on the Florentine Codex, MID
1241	8/6/1981	5 p	Alexander Flem- ing commemora- tive
1577 (set 1577–8)	12/20/1988	300 p	Corn smut, <i>Ustilago maydis.</i> Main illustration.
1995u (set 1995 a–x)	10/2/1996	\$1.80	<i>Cookeina sulcipes</i> or <i>C. venezuelae.</i> Main illustration.

There is considerable information that leads us to believe that the native peoples of Mexico and central America used fungi, as well as plants and animals, for ritualistic and entheogenic purposes (Elferink et al., 1994). The Florentine Codex (Codice Florentino) is a pictographic history of the Spanish conquest of Mexico, and Scott 1085 is taken from this Codex. It shows merchants with mushrooms and seems to suggest their use. Further details related to this subject are well beyond the scope of this article, but another related and intriguing publication that you may find interesting is by Mayer (1977), who also provides extensive references.

Scott 1241 is the first North American stamp to commemorate Alexander Fleming, in 1981. Unfortunately, the photo image used on the stamp has very annoying vertical lines that obliterate most of Fleming's features and become exaggerated when enlarged.

Scott 1577 showing corn smut is the first stamp from Mexico with a fungus as the main illustration (the other stamp in the set illustrates a tree, Mimosa tenuiflora). If you've ever seen corn smut up close and personal, you know that it's pretty disgusting looking-like a grossly disturbed corn cob where something went drastically wrong. In fact, that's precisely the case. This disease can attack any part of the corn plant, but if it infects the ears, its early development prevents normal growth of the corn cob and kernels; instead you get a misshapen, grotesque mass of tissue and eventually millions of black spores. It's rather alarming to look at, compared to a normal, uninfected plant. On your own and without prior knowledge you wouldn't begin to even consider the remotest possibility that it could be edible. In fact, huitlacoche (pronounced wheat-la-coachay) is delicious and has been eaten for centuries, although the actual derivation of the word seems to mean something akin to corn excrement or the like, in reference to its appearance. I think it's extra hard for those of us who grow our own maize and appreciate good sweet garden corn to ever look at corn smut and not be put off, but looks are deceiving. It has a surprisingly sweet mushroomy flavor and aroma when cooked and eaten. The Aztecs actually cultivated the stuff, but also knew it could destroy their regular maize harvest. It's best picked when immature, still moist and whitish inside and hasn't formed the black spores yet. It's also called Corn Truffle or Mexican Corn Truffle. El Mercado Latino at the Pike Place Market here in Seattle carries it canned, from Mexico, but it's not as good as the fresh stuff.

The last entry in the table is a single stamp I found on a fascinating and beautiful sheet of 24 different wildlife stamps (with one cinderella label at the center top), titled Conservemos las especies de Mexico, issued in the year 1996. This is an extremely "busy," detailed sheet and I spent a lot of time with a lens looking carefully at all the illustrations. All stamps have a value of \$1.80. The fungus stamp itself is titled Conservemos las especies de la Selva Humeda and has five pinkish-red Discomycete apothecia growing on wood which are labeled in super fine print as "hongos copita," meaning goblet-shaped or cup-shaped mushrooms. This is one of a couple of possible species of the genus Cookeina, as noted earlier. There are five other organisms shown on the same stamp-a crocodile, a plant, a butterfly, a boa, and a leaf-cutting ant. All are equally prominent and equally labeled. Therefore, I consider this to be a main illustration myco stamp. If one of the other organisms had been obviously prominent and the mushrooms smaller or relegated to the background, then I would consider the fungus illustration to fit into my category of MID.

In addition to these genuine postal items, in 1985 Mexico issued a really lovely anti-tuberculosis sheet with 50 different mushroom cinderellas on it. These non-postage items are stamp-like, gummed seals, each with a scientific name and all have a value of \$1.00. I recently wrote an introductory article about fungus illustrated cinderellas, so please refer to it for a better appreciation of the diversity of paper ephemera products that I include in this category (Luther, 2012, November).

For those of you interested in the macrofungi of Mexico, I can recommend the following older field guides: Guzman (1978, 1979), Tablada (1983).

## References

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photos by B. S. Luther



Mexico, 1985, TB seal sheet of 50 different mushrooms.



Scott 1995u Cookeina sp.

Scott 1085. Florentine Codex

Scott 1241, Fleming

Scott 1577, corn smut

## FUNGI GET INTO THE HOLIDAY SPIRIT

National Geographic, Dec. 21, 2012

For the last several Christmases, Stephanie Mounaud, an infectious disease researcher at the J. Craig Venter Institute (JCVI) in Rockville, Maryland, has used the different strains of mold that she works with to create holiday-themed fungal art.

To create each piece, Mounaud begins by drawing out the design on a piece of paper and then taping it to the back of the Petri dish where she plans on growing her fungi. Before actually plating, or applying, the fungus to the dish, Mounaud thinks about which fungal strains to use to create the desired colors and effects.

Getting the colors just right is tricky and requires growing the right fungus on the right medium. The color used in the snowman shown here, for example, was made from the spores, hardy reproductive forms of fungi used for dispersal. To coax the fungi to create spores, Mounaud used a nutrient-poor growth medium. "When you give them a starved condition, the fungi really want to produce their spores because they feel they're in an environment where



they need to survive," she explained.

Snowman made by combining four different fungi, including common strains such as Aspergillus niger and rarer ones such as Penicillium marneffei.

Different fungal grow at different rates, so Mounaud's artwork rarely lasts for long. There's only a short window of time when

they actually look like what they're suppose to. "You do have to keep that in perspective when you're making these creations," she said.



Santa hat and holiday message created by combining different fungi.

For example, the A. flavus fungi that she used to write this message from Santa grows very quickly. "The next day, after looking at this plate, it didn't say 'Ho Ho Ho.' It said 'blah blah blah,'" Mounaud said.

The message also eventually turned green, which was the color she was initially after. "It was a really nice green, which is what I was hoping for. But yellow will do," she said.

The hat was particularly challenging. The fungus used to create it "was troubling because at different temperatures it grows differently. The pigment in this one forms at room temperature but this type of growth needed higher temperatures," Mounaud said.

Not all fungus will grow nicely together. For example, in the hat, "N. fischeri [the brim and ball] did not want to play nice with the P. marneffei [red part of hat] ... so they remained slightly separated."



"It sounds like a lot [of work], but Lab-grown Christmas tree because the fungi are almost second nature to me, it doesn't take a lot of planning or time," she said. "I know

decorated with fungal tinsel and ornaments.

what's going to happen, and I know what they're going to do. It's pleasure work."

Mounaud hopes her fungal artwork will help people develop a better appreciation for the mold that surrounds them. "Fungi act



in so many ways to help us, and hopefully this will help show people that. They're not just gross and smelly. They're also really cool," she said.

Traditional green fungal Christmas tree topped with a yellow star made with the fungus Talaromyces stipitatus.

## TOO MANY DEER EATING SHIITAKE MUSHROOMS

Carmel Lobello

http://www.deathandtaxesmag.com/, Jan. 8, 2013

The countryside surrounding Bungo-Ono, Japan, has too many deer, reports WSJ, and the overrun population is eating local farmers' shiitake mushrooms-\$33 million worth a year, claims Japan's environment ministry.

Japan's deer crisis is aggravated by extreme demographic trends: intense urbanization and depopulation of rural areas, record low birthrates, and the world's most rapidly aging society. Plus, there's a cultural legacy: Venison isn't a staple of Japanese cuisine, and gun ownership is subject to strict regulation.

To fight back, the government has launched a couple of plans such as laying new traps, trying to make hunting fashionable for young urbanites, and introducing venison to school lunches.

If anyone could make hunting fashionable it's the Japanese, but the Parliament is also mulling an idea that may work and doesn't involve firearms: importing and releasing Tibetan wolves, a close match to Canis lupus hodophilax, a na-



tive wolf killed off in 1905 by decree, to prey on the deer.

#### **ODE TO BUTTON MUSHROOMS David Tanis**

New York Times, Jan. 11, 2013

I enjoy wild mushrooms, but I happen to like ordinary white button mushrooms, too, the cultivated kind, the ones that are also called champignons de Paris (especially by the French). Simply sautéed in a little butter or olive oil and finished with garlic and parsley, or sliced raw for a salad with a lemony dressing-what could be better? They're completely satisfying.

Cooked and marinated à la Grècque with white wine and aromatics, button mushrooms make a fabulous hors d'oeuvre. A modernthinking Parisian chef I know even makes a very tasty ice cream with them as a cheaper alternative to the trendy black truffle version. And a well-executed white mushroom omelet with a bit of ham and cheese is something wonderful. This week's recipe, mushrooms à la crème, makes great use of them as well. It's a simple one, with only a few ingredients: a bit of butter, a handful of sweet herbs and some tangy crème fraîche. Try it as an easy side dish or over noodles.

Mushrooms actually belong to the fungi, not the plant kingdom, but we tend to think of them as a vegetable and treat them as such. Omnivore, vegetarian, and vegan diners all prize them, not only for their versatility, but also for a kind of meatiness in texture

## Election

## Election

## Election

This year we are voting for a Vice President, a Secretary, and five Trustees. Please read the following profiles carefully and mark your choice on the enclosed ballot. Return your ballot to "PSMS Election Committee, c/o Brenda Fong, 2201 39th Ave. East, Seattle, WA 98112." A ballot box will also be available at the February meeting. Each family membership is entitled to two votes, and each individual membership to one vote. Ballots received after Saturday, March 9, 2013, will not be counted.



Milton Tam Vice President

As your current Vice President and Program Chair my main tasks are to recruit interesting and knowledgeable speakers for our monthly meetings, to arrange educational field trips to expand our appreciation for and understanding of mycology, and to assist our President and Board of Trustees. I ask that you re-elect me for this special one-year term. Thank you.

#### Secretary Denise Banaszewski

I joined PSMS 8 years ago and have been Secretary for the past four years. I would like to continue to serve in that role through the NAMA 2014 foray. Being on the Board has given me the opportunity to be more involved in PSMS, which I have really enjoyed. My main interest in mushrooms has always been culinary, but I actually enjoy the hunt just as much now.



## Trustees

## **Brady Raymond**

I grew up hunting morels with my father in Michigan. We often noted the numerous other kinds of fungi but were baffled by their many forms. I've lived in Seattle six years and joined PSMS a little over a year ago with my wife, Erin. We have really enjoyed learning about all aspects fungal. My goal is to get more involved, to learn, and to educate.

#### Andrea Rose

As a member of PSMS since 1998, I have hosted and led groups on field trips, worked annually on the October Mushroom Show and Mushroom Maynia!, and regularly assisted with Book Sales at meetings. I have been a trustee on the Board for the past two years and look forward to another two years and to working on the NAMA Foray in 2014.

#### Reba Tam

A long-time Seattle resident, I have always enjoyed cooking, eating, and hunting mushrooms and am always trying to learn more about taxonomy and identification. If re-elected, I will continue to use my ideas to assist the club in its many activities, in particular, the upcoming 50th anniversary celebrations and hosting of the 2014 NAMA foray.





## Luise Asif

Thank you to all for the opportunity to serve on the board for the past 3 years. It would be an honor to serve again as we move forward developing focus and preparing for the NAMA conference to be hosted by PSMS in 2014.

## Jon Hall

PSMS has played an ever larger role in my life since I rejoined a few years ago. I started off mildly interested in picking mushrooms, then going regularly on forays, then discovering special porcini locations, trying recipes, making friends, even learning scientific names. Now I look forward to giving more time & energy to PSMS.

#### Teddy Basladynski

I love PSMS and hope to continue serving as a trustee. The past 2 years I've hosted and attended multiple field trips, helped with the wild mushroom show, redesigned the PSMS website, and will co-chair the planning committee for the NAMA foray in 2014. If re-elected, I look forward to more opportunities to help PSMS and meet more of our members.







## Button Mushrooms à la Crème

New York Times, Jan. 16, 2013

## Ingredients

1 pound very fresh cultivated white mushrooms,

button size (larger is fine)

3 TBs butter

Salt and pepper 1⁄2 tsp lemon zest

Squeeze of lemon juice, about 1 TBs

1 tsp chopped tarragon



2 TBs chopped parsley 1 TBs thinly sliced chives

## Preparation

1. Trim mushroom stems. If gritty, rinse briefly in a colander with warm tap water and blot dry. (Or wipe them with a damp paper towel.) Halve or quarter mushrooms larger than button size.

2. Melt butter in a large skillet over medium high heat. When it sizzles, add mushrooms and stir to coat. Season well with salt and pepper. Turn up heat and cook, continually shaking pan and stirring with a wooden spoon. The high heat should evaporate any liquid from the mushrooms. Cook until just done, 3 to 4 minutes.

3. Add the lemon zest, lemon juice, and tarragon, then the crème fraîche, stirring continuously over high heat until the sauce is reduced and somewhat thickened, 2 minutes or less. Turn off

the heat, stir in the parsley, and transfer mushrooms to a warm serving bowl. Sprinkle with chives and serve immediately. *Yield:* 4 servings.

#### Button Mushrooms, cont. from page 7

and flavor, at least in some preparations. Roasting or grilling mushrooms gives them a burnished exterior that accentuates that quality, and it is a fine way to cook them. But for giving flavor to stuffings, sauces, and stocks they don't necessarily need to be caramelized. Remember mushroom duxelles? Finely chopped and slowly simmered, this French staple used to be added to everything from beef Wellington to vols-au-vent.

The button mushroom was originally cultivated in France in the early 1700s when an enterprising fellow harvested some growing in a pile of dry horse manure in some old quarries just south of Paris, then noticed they reappeared in the same spot a few weeks later. Nearly 200 years later, Monsieur Pasteur discovered that heating the manure to a certain temperature guaranteed a plantation's success. Since then, mushrooms have been grown in pasteurized compost.

In this country, most of the mushrooms are grown near Kennett Square in Chester County, Pa. The state produces 350 million pounds of mushrooms a year, roughly 65% of the nation's total.

The white button mushroom is exactly the same species as cremini and portobello [*Agaricus bisporus*]. So the next time you're foraging for cultivated fungi, consider giving the brown ones a pass and going for their underappreciated pale cousins instead.

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