



SOMA News

VOLUME 22 ISSUE 9

May 2010

SOMA IS AN EDUCATIONAL ORGANIZATION DEDICATED TO MYCOLOGY.
WE ENCOURAGE ENVIRONMENTAL AWARENESS BY SHARING OUR ENTHUSIASM
THROUGH PUBLIC PARTICIPATION AND GUIDED FORAYS.

WINTER/SPRING 2010 SEASON CALENDAR

May

May 20th » Meeting—7pm
Sonoma County Farm Bureau
Speaker: Peter Werner

No foray except the morel trip (p.2)



Slime mold photo by George Riner



EMERGENCY MUSHROOM POISONING IDENTIFICATION

After seeking medical attention, contact **Darvin DeShazer** for identification at (707) 829-0596. Email your photos to muscaria@pacbell.net. Photos should show all sides of the mushroom. Please **do not** send photos taken with cell phones—the resolution is simply too poor to allow accurate identification.

NOTE: Always be 100% certain of the identification of any and all mushrooms before you eat them!

A free service for hospitals, veterinarians and concerned citizens of Sonoma County.

SPEAKER OF THE MONTH

Peter Werner
Thursday, May 20th
7 PM at the Farm Bureau

***Psilocybe* and allies of California, as well as other
psilocybin mushrooms of the state**



Peter Werner is a long-time member of MSSF and has been involved in mycological pursuits since the early 1980s. His academic study of mycology began at University of Washington and continued as a graduate student at San Francisco State University, where he was working on a thesis project, a monograph of the *Psilocybe* species of California under advisor Dennis Desjardin. Peter is also an avid photographer and microscopist, and recently completed a professional certification program in microscopy at Merritt College.

Peter will be speaking on *Psilocybe* and allies of California, as well as other psilocybin mushrooms of the state. His talk will include discussion of recently-discovered species from California, as well as the taxonomic issues surrounding the classification and naming of *Psilocybe* and its relatives.

SOMA OFFICERS

PRESIDENT

Jim Wheeler
wheeler.j.d@att.net

VICE PRESIDENT

Vacant

SECRETARY

Karen Kruppa
SOMAsecretary@SOMAmushrooms.org

TREASURER

Julie Schreiber
SOMAtreasurer@SOMAmushrooms.org

COMMITTEES AND BOARD MEMBERS

BOOK SALES

Gene Zierdt

CULINARY QUESTIONS

Vacant
SOMAculinary@SOMAmushrooms.org

CULTIVATION CLUB CHAIR

Ben Schmid
SOMAcultivation@SOMAmushrooms.org

FORAYS

Michael Miller
SOMAforay@SOMAmushrooms.org

MEMBERSHIP

George Riner
SOMAmembership@SOMAmushrooms.org

MUSHROOM DYE COORDINATOR

Dorothy Beebee
SOMAmushroomdyes@SOMAmushrooms.org

MUSHROOM PAPER COORDINATOR

Catherine Wesley
(707) 894-7725

SCIENTIFIC ADVISORS

Darvin DeShazer
(707) 829-0596
muscaria@pacbell.net

Chris Kjeldsen, Ph.D.

(707) 544-3091
Chris.Kjeldsen@sonoma.edu

SOMA CAMP DIRECTOR

Linda Morris
SOMAcampinfo@SOMAmushrooms.org

SOMA CAMP REGISTRAR

Lou Prestia
SOMAregistrar@SOMAmushrooms.org

SOMA NEWS EDITOR

Tom Cruickshank
SOMAnewseditor@SOMAmushrooms.org

SOMA WEBMASTERS

Martin Beebee
SOMAinfo@SOMAmushrooms.org

VOLUNTEER COORDINATOR

Gina Kuta
Volunteer@SOMAmushrooms.org

SOMA's *Amanita muscaria* logo by Ariel Mahon

PRESIDENT'S LETTER

May Dispatch from the Duff

The Sonoma County Parks Organization scheduled a number of activities in April to express appreciation for the support they have received over the years. All of the events were free and coordinated through the efforts of Donna LeGraffe. Many were held on weekends to encourage more folks to explore the rather extensive park system. SOMA was invited to lead a "wild mushroom" hike at Salt Point County Park on April tenth. The objective was to find and identify wild mushrooms, as best as possible, without collecting. Not a simple task, but not all that difficult because the number of species this time of year had dwindled.

On a wet and gray day, fifteen people met in the parking lot next to the campground. Since abalone season had just opened, the campground was full and many divers were preparing for the day. After a short introduction on foray etiquette, we set off on a mile long loop trail around the central part of the park. Within a few yards down the trail the first of a number of specimens were sighted. Two young hikers were the most active and best spotters. A 7 year old and 12 year old youngster saw things that I had walked past two minutes previously. Most specimens were wilted or in various stages of decay, but there were a few in excellent shape. Hedge hogs, black chanterelles, black earth tongues, and various types of russula were the most common sightings. We finished the hike in two hours and remained dry until exiting the woods at the parking lot, when it started to drizzle. The hikers were very appreciative. It was easy to talk about the activities of SOMA and the seasonal aspect of wild mushroom collection. It looked as if the sky was about to fall, but five minutes later the clouds broke and scattered sunshine carried all of us home. Another Un-rainy SOMA foray was put into the books.

The Sonoma County Parks System has a great website. I encourage everyone to visit it and see all that we have created or built over the years. More importantly, think about becoming a visitor or a tourist in your own backyard. Visit all the parks, trails, fields . . . take pictures . . . build a scrapbook and share it with family or friends. Share it with those who are looking for something to do in our own backyard.

Best regards,

-Jim Wheeler

FORAY OF THE MONTH

Stretching the Season

A hearty list of members has woven a group that will head to the mountains this month for a SOMA More! Foray. Stay tuned for a report on this adventure in our first newsletter of the 2010-11 season this September. Sorry, if you did not make the list. The basket is F-U-L-L!

April Foray Success Story

by Holly Nadeau

I decided to bring my good friend Michelle out with me and my family to the April SOMA mushroom foray. I had a great time at my first foray in March, and knew it would be right up her alley as well. I am fascinated by mushrooms as the amazing exotic organisms that are, so sadly overlooked and kicked over. Michelle had a great eye for mushrooms and found our first handful of mushrooms, mostly candy caps. However, my dad, my mom and I soon started eyeing them as well. We ended up having a basket full of mushrooms! But our greatest find was within the last fifteen minutes of our foray. We walked a little ways up a different trail and branched off onto a barely-there path. This path led us to a tiny jungle of various fungi! We found a rather large bunch of what we identified as sulfur tufts and several smaller groups, as well as a coral-like fungus sprouting from a small barren patch of soil. Given that April is traditionally in the tail end of mushroom season, I was very happy with our basket full of mushrooms. When it was suggested that Michelle and I use the bushel of sulfur tufts to dye, we became instantly excited. At the pot luck our excitement only grew as we were shown a box full of dyed scarves and a basket full of dyed pieces of cloth. We then raced home and searched the Goodwill for silk or wool clothing with no success. But my mom offered us a silk scarf she gave to my dad years ago, and we dyed that. It turned out a happy soft yellow.

In my opinion, the gorgeous colors are even more special knowing the story behind them. It gives the cloths more meaning when dyed with mushrooms one has gone out and harvested themselves and then simmered to perfection.

See Photos with captions by Greg Shank on Page 3!

Mushroom Dyers Heart's Desire...

I really had no great expectations for finding any dye mushrooms at our April Foray to Tomales Bay State Park – really went along for the good company and lovely location near Inverness... (lot's of childhood memories there, ~ our family kept a little 16 ft. Snipe sail boat anchored in Tomales Bay as I was growing up, and we used to SWIM from the boat into Heart's Desire Beach before any roads were built out there....)

I hiked along with Jim Wheeler and a small group on the south beach trail, finding only a few polypores – some beautiful *Ganoderma applanatum* which are ideal for Papermaking.

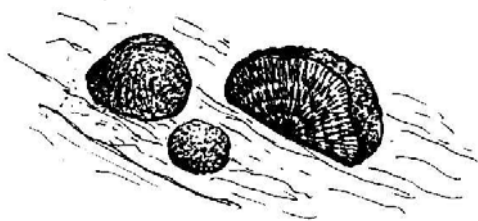
Though this "Artist's Conk" does make a nice chocolate brown mushroom dye, it makes an even better, superb, rich brown suede-textured paper! The polypores were so pristine, we decided to leave them "in situ" for others to enjoy..... These polypores are one of the favorites used by Catherine Wesley in her polypore papermaking workshops at SOMA Camp.

Another interesting find on dead logs, probably oak, was a good collection of what we used to call *Daldinia grandis*, a small, hard, black pimply-textured half-round lump that shows faint concentric circles when sliced in half. These are sometimes known as "King Alfred's Cakes" or "carbonballs" (and no, I do not know why...) but they will make a greenish brown dye. However, Miriam Rice has come up with even an even better use ~ to make "Myco-Stix"! THEY (The Taxonomists) have just recently

forayers, and a young SOMA newbie, Holly, had found an exquisite, tightly clustered clump of golden yellow *Hypoholoma (=Naematolma) fasciculare* mushrooms (a.k.a "sulphur tufts") – the first mushroom used by Miriam Rice for dye over 40 years ago! I encouraged her to take it home, chop it up, make a mushroom dye and throw in a white silk scarf, (even without a mordant), which she and friend Michelle promptly did that evening! Well done, girls!!! (See photographs!) YAY! More Mushroom Dye converts, and Miriam was very pleased when I told her about it a few days ago. SOMA Camp dyer Karen Tate also brought along a basket of mushroom dyed woolen fabric and silk scarves to share, tempt and inspire us, and another 2010 SOMA Camp dyer, Karen Miller emailed me photos of her lovely experiments on silk with mushrooms foraged by husband Mike (our new SOMA Foray leader) and their son Aaron. We are so pleased that the mushroom dye torch is being passed on to these younger generations!!! Happy Dyeing, friends!

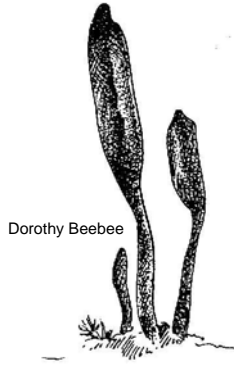


Dorothy Beebee



Dorothy Beebee

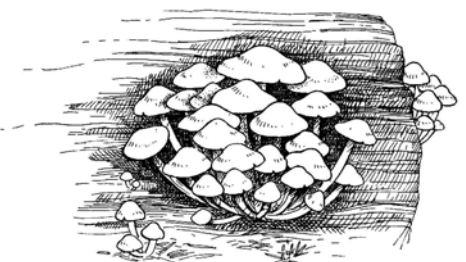
Dorothy Beebee



"renamed" this little carbon ball, and I won't attempt to say what is the new name, because it will probably be changed again by the time we go to print!

And then our third potential "dye mushroom" spotted by a pair of young sharp eyes were some solitary black "Earth Tongues". I know that Miriam has used the green variety of these (*Geoglossum viride*) for a light green dye, but I have never found enough for an experiment.

Re-gathering back with the SOMA group after a trek along the low tide rocky beach, we compared notes with other



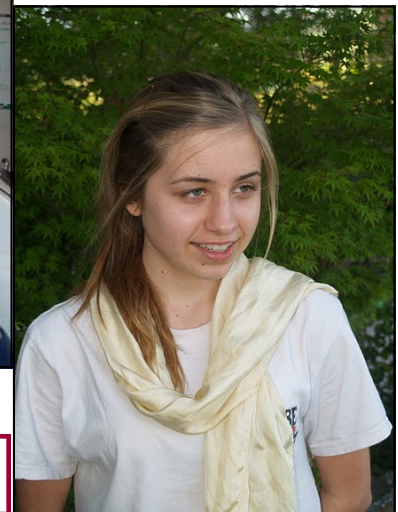
Dorothy Beebee



Top view of cespitose cluster



Holly and Michelle take Dorothy's suggestion and have their first dyeing experience



Holly is happy with the beautiful golden color of the silk scarf - it worked!

The Foragers' Report

Morels? Morels? Hello? Go get them. They are out there. "When you're weary, feeling small, when tears are in your eyes (from not finding morels) I will dry them all"—and then I'll take all of you out morel hunting (for the typical price).

Lots of *Gyromitras gigas* are being found in the Sierras at 3,900 to 4,500'. May be my favorite mushroom to eat. The morel season should be a good one this year. And so should it be for spring porcini. I still sell maps to my spots. Or not.

This morning my Danny dog was so barkative after we were returning from a mushroom event that I had to shush him and then I realized that he had shushed me. Odd. How does this stuff come up?

In July I will be teaching Mexican mushroom cooking in Puebla. I do not think there is any more space for more folks to attend but if you want to inquire please email me privately.

Julie Schreiber has begun to do the recipes for the SOMA NL and she is good. Very, very, good. That's all folks!

CLIP & SAVE 

Sorrel soup with mussels and porcini

by **Julie Schreiber**

Ingredients:

- Mussel poaching liquid
- 10 lbs Mussels
- 1 bunch Thyme
- 1 bunch Parsley
- 2 each Bay leaf
- 1/4 t Pepper corns
- 4 Shallots

- 1 Onion
- 1/2 C Flour
- 1/2 C Butter
- 2 oz. Dried porcini
- 2 C Water
- 1 pt Cream
- 2 bunches Sorrel
- Salt & pepper



Steam mussels in a pasta type pot with an insert that has holes in it. for example Sauvignon blanc, and combine with thyme, parsley, bay leaf, and pepper corns into the bottom of the pot. Put insert into pot and put cleaned mussels into insert. Cover with a lid and steam mussels until the shells pop open. Transfer mussels to a separate container and let cool enough to remove meat from the shells. Set aside. Strain poaching liquid into a container and set aside.

Put 1/2 bottle of white wine,

Sweat diced shallots and onion with butter in a soup pot until they are soft and translucent. They should not have any color. Add flour and stir until it has combined with all of the butter to make a roux. Continue stirring and cooking for about a minute to remove flour flavor. Slowly add strained poaching liquid to onion mixture. When all is added there should be no lumps of flour. Put this on a low heat to allow it to simmer. As the liquid heats up you should see it start to thicken.

Rehydrate porcini in hot water and allow to sit for at least 30 minutes. Once this is ready transfer mushrooms to soup pot and add porcini water after you have strained out any sediment.

Add cream to soup pot. Continue to let soup simmer. Taste it and season with salt and pepper.

Add sorrel to soup and let cook through. Use either a blender or a hand blender and puree soup. Once again, taste it and season with salt and pepper.

When you are ready to serve add mussels to soup.

REVITALIZING SOMA'S CULINARY GROUP

Interested in cooking?
 Like good food?
 Enjoy making new acquaintances?
 Love incorporating 'shrooms in recipes?
 Join us in a reorganization meeting. Bring your ideas and be ready to share your vision with like minded SOMA members.
 SUNDAY JUNE 13TH - 3:30 PM - ? Pot luck dinner follows meeting.
 Gene and Rachel Zierdt's home
 1936 Coffee Lane
 Sebastopol
 RSVP: RZierdt@gmail.com or julieschreiber@hotmail.com

This meeting is for SOMA members only. So please make sure your dues have been paid for this year...

PLEASE BRING: (just as for a foray)
 A dish to share, something to drink
 Your own cutlery, plates, wine glass

*Since we don't know how many will be coming, this might be an outdoor meeting so bring a chair to sit on.

FUNGI FOUND AT HEART'S DESIRE ON 4/17

- Agaricus augustus* ("The Prince" - rather old, though)
- Amanita* spp.
- Brefeldia maxima* (that slime mold)
- Candy caps (*Lactarius* spp.)
- Clathrus ruber* (imported)
- Clitocybe* sp.
- Ganoderma* sp. (like *G. applanatum*, but probably not that)
- Gyromitra infula* (elfin saddle)
- Helvella lacunosa*
- Hypholoma capnoides*
- Lactarius deliciosus* (green staining orange thing)
- Lenzites betulina*
- Peziza* sp.
- Russula* spp.
- Stereum* sp.
- Trametes* sp.
- Trichoglossum* sp (Black Earth Tongue)

Thanks to George Riner

Saturday the 17th dawned overcast and gray. However, the forecast was for improvement later in the day, so after collecting our carpooler, Bob Rawson, we lit out for the Inverness area and the prospect of another SOMA foray. Though I did not have high hopes for mushrooms, everyone was pleasantly surprised by what was found. Though edibles were scarce, limited mostly to smattering of candy caps and one over the hill prince, dye mushrooms were found as well as a nice collection of diverse fungi. Check out Dorothy on p. 3 and Holly on p. 2 for more on the dye scene. Oh...the weather improved by the time we got to HD into a splendid spring day replete with warm sunshine.

The real story of this foray is the wonderful potluck that followed the foraging. We all left Heart's Desire and travelled the few miles to the home of Mary and Jim Olsen in Inverness. Mary, who is blessed with a natural hostess gene and a heart rivaling Heart's Desire Beach, really put on the dog for the 30 to 40 folks

who attended plus a few neighbors for good measure. Mary prepared these amazing Tiropita mushroom/cheese delicacies that were to die for. She also had planned ahead and made a great spiced pork roast which debuted to rave reviews from the revelers. Not to be outdone, SOMA and some of us shelled out for 10 dozen oysters, some for raw and some for the barbecue. Add these to the other usual and unusual dishes that folks brought and the free flowing wine, and, well, an after foray party that was one of the best ever! To top things off, Mary and Karen Tate had schemed up a way to really sandbag everyone by brewing up a batch of limoncello. This remarkable, potent libation sent everyone home with a smile on their faces and, hopefully, sober performances behind the wheel. Limoncello is addictive and frequent imbibing can lead to spontaneous flights of fancy as evidenced by Mary and Karen's ramblings below.

To those who missed this foray, all I can say is that you missed one for the record books! THANK YOU MARY AND JIM!!!

Adventures of Mr. Morchella!

by Mary Olsen and Karen Tate © 2010



There was a man from Yemen
who sold fruit and lemon.

He was lookin' for a girl
and hopin for a weddin'.

When he saw a lass in denim
his thoughts went straight to beddin',
so he grabbed his cello
to play for the bella.

She could see where this was headin'
and her face began to redden.

"Mr. Morchella, you're not the fella
who will taste my limoncella!"

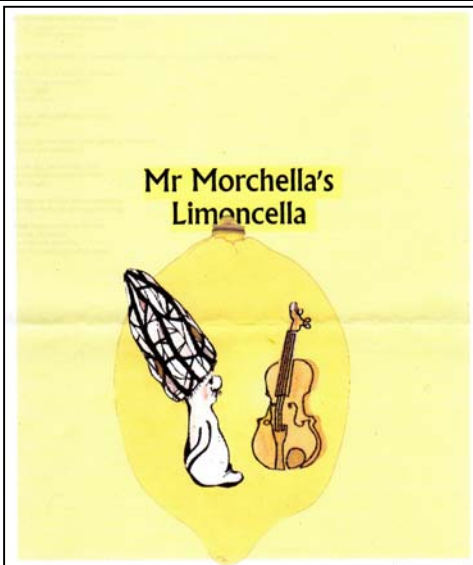


Mr. Morchella
was a hapless fella
who sought to change
his mood to mello.

He drank all day
He drank all night-
He drank all my limoncella!

Soon he was a pickled fella
And then
 he turned
 to
 slimy jello!

And so my dear,
listen and hear -
the morel of the story is thus:
"Tis better to pick a morel
than to be a pickled morel!"



Mr. Morchella, that hapless fella -
He met a cruel, unhappy fate.

He played his cello
for Karen Tate,
But she just wouldn't take the bait.

He played the high notes...
He played the low notes...
It did nothing but get her goat.

She held him by his pitiful stipe,
And then she took her sharpest knife-
She sliced him up,
She buttered him well
She threw some garlic in as well!

She turned up the heat
on her favorite pan
And that was the end of
MORCHELLA MAN!!!!



Mr. Morchella he went to his cellar
To get a nice bottle of wine
But when he got there, his cellar was bare.

He lit up his pipe
And shuffled his stipe
He scratched his cap
And consulted his map.

"Where is my wine,
Sweet fruit of the vine?"

"Oh no!" he exclaimed -
(to him it was plain)

Those SOMA folks!
They wiped out my patch
and they wiped out my kin!
They drank all my wine
And they drank all my gin!

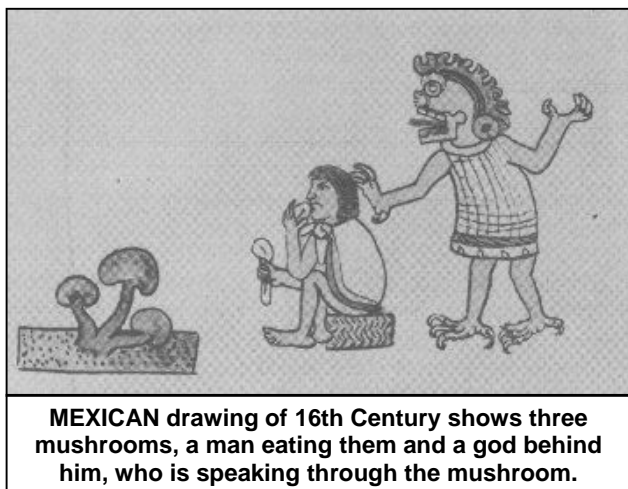
He sat on the floor
and dabbed at a tear.

"Oh well" he said,
I'll have to

DRINK BEER!

by an anonymous Cornell Mycology student, written for the Cornell Mushroom Blog

Ethnomycology! What a mouthful. Ethnomycology is the study of how people have used fungi – as food, tinder, medicine, and spiritual tool – and how this use has influenced them. Many cultures of the world consider mushrooms to be sacred curers of sickness and givers of information. You've probably heard of the *Amanita muscaria*, that handsome red mushroom with white spots, or maybe even of the *Psilocybe* mushrooms of Mexico, so sacred they were called "God's Flesh." An intriguing but less discussed topic is the use of fungi by Native Americans of North America.



MEXICAN drawing of 16th Century shows three mushrooms, a man eating them and a god behind him, who is speaking through the mushroom.

Haploporus odoratus is found above 52 degrees latitude in Canada and Northwestern Europe. It is a polypore – a stalkless shelf-like fungus with pores on its undersurface. It is white, hoof-shaped, and grows on willow trees in conifer forests. Upon close observation one can easily notice the unique characteristic of *H. odoratus* – its smell. The fruiting bodies have a strong odor of anise, kind of like licorice. This smell is strong and persistent, and dried specimens retain their odor. Native Americans appreciated the smells of plants like sage and sweet grass and used these plants for purification rituals. Because of its strong fragrance and other medicinal properties, *Haploporus odoratus* has been an important fungus in the culture of Northern Plains Indians.

Indians used *H. odoratus* as a spiritual symbol, a decoration of sacred objects and a healing tool. The fungus was used to stop wounds from bleeding, made into an infusion to treat diarrhea and dysentery, and combined with another fungus in an infusion to treat coughs. It was burned to produce healing perfumed smoke, and some elders wore necklaces of pieces of the fungus strung on a leather thong as protection against becoming ill. Indians took this fungus from the willow tree, carved it into smooth ovals, and then decorated them with burnt line patterns. Some pieces of fungus were strung onto leather thongs to create necklaces—have a look at this Alberta Plains necklace and ermine ornament courtesy of the Canadian Museum of Civilization. Other pieces were used to create medicine bundles – powerful collections of sacred objects. So revered was this fungus that the Native Americans even used it as an adornment on sacred war robes and scalp necklaces. It's clear that it was associated with protection and power.

Another interesting fungus (though not so sacred) is *Phellinus igniarius*. This polypore grows on birch trees in the interior of northern North America. Native American use of this fungus has

been recorded since the 19th century. Coastal Alaskan peoples traded with the Yukon Indians of the interior to obtain it. The Yupik and Dena peoples of the far northwest kept the ashes of *P. igniarius* in small, beautifully decorated boxes. The boxes were made of ivory, wood, or bone, and then decorated with materials like strips of antler, polished walrus teeth, and tufts of seal hair. You're probably wondering, 'Why in the world would anyone keep fungus ashes in beautiful boxes?' *Phellinus igniarius* was, and still is today, widely used by the Yupik of Alaska as a masticatory and for smoking purposes. Before tobacco was introduced by the Europeans, the Yupik mixed the burnt fungus ashes with other plant materials, such as cottonwood bark, and smoked or made a quid out of this mixture. Later, they mixed the ashes with tobacco to give it a "powerful kick." Today, the ash-tobacco mixture is sold in native Alaskan communities under the name iqmik. Please read more about iqmik in this fine essay by Diane Pleninger and Tom Volk, and see a slideshow on iqmik and its dangerous impacts courtesy of Alaska Magazine. It turns out that the alkaline chemicals in the fungus enhance the absorption of nicotine. It's no wonder that one Indian name for *Phellinus igniarius* is "elch'ix", which translates as "burning taste."

Perhaps the most intriguing use of fungi in North America is the Northwest Coast tribes' use of *Fomitopsis officinalis*. This perennial polypore grows against conifer tree trunks in a columnar shape that can reach up to one meter in height. *Fomitopsis officinalis* was used to treat many ailments. But a significant use of this fungus was revealed only recently. What scientists once thought were carved wooden figures were revealed to be carved of *F. officinalis* fruiting bodies! These figures were used to guard the graves of shamans. After a shaman's death, the carved fungus figures were placed at the head of the grave in order to send a message that the grave was occupied by spirits

There's still much to learn about the uses of fungi by indigenous peoples of North America. It's clear that these living things were perceived as powerful and mystical objects, and played an important role in Native American culture.

References

- Alaska Magazine's Iqmik slide show.
- Blanchette, R. A., B. D. Compton, N. J. Turner, and R. L. Gilbertson. 1992. Nineteenth century shaman grave guardians are carved *Fomitopsis officinalis* sporophores. *Mycologia* 84:119-124.
- Blanchette, R. A. 1997. *Haploporus odoratus*: a sacred fungus in traditional Native American culture of the northern plains. *Mycologia* 89:233-240.
- Blanchette, R. A. 2001. Fungus ashes and tobacco: the use of *Phellinus igniarius* by the indigenous people of North America. *The Mycologist* 15:4-9.
- Blanchette, R. A., C. C. Renner, B. W. Held, C. Enoch, and S. Angstman. 2002. The current use of *Phellinus igniarius* by the Eskimos of Western Alaska. *Mycologist* 16:142-145.
- Diane Pleninger and Tom Volk. 2005. *Phellinus igniarius*, Iqmik, used by native Americans with tobacco. http://botit.botany.wisc.edu/toms_fungi/nov2005.html [Tom Volk's Fungus of the Month for November 2005]
- Schultes, Richard E., Albert Hofmann, and Christian Ratsch. *Plants of the Gods*. 2nd ed. Healing Arts, 1992. Print.

<http://blog.mycology.cornell.edu/?p=1078>

Corn Smut Delicacy Huitlacoche is Good for You

MARTHA MENDOZA | 04/27/10 08:19 AM | AP

<http://snipurl.com/vydid> [www_huffingtonpost_com]

IRAPUATO, Mexico — It's now an established scientific fact: Smut is GOOD for you. Corn smut, that is.



For years, scientists have assumed that huitlacoche (WEET-LA-KO-CHEE) – a gnarly, gray-black corn fungus long-savored in Mexico – had nutritional values similar to those of the corn on which it grew. But test results just published in the journal *Food Chemistry* reveal that an

infection that U.S. farmers and crop scientists have spent millions trying to eradicate, is packed with unique proteins, minerals and other nutritional goodies.

And here's a bonus: agro-economists have found it can sell for more than the corn it ruins. "We had no idea huitlacoche could actually synthesize significant nutrients that don't even exist in corn," says Octavio Paredes-Lopez, one of Mexico's leading food scientists.

"Who cares about the nutritional value? The flavors are amazing!" said Steve Sando, a grinning Napa Valley epicurean whose booming Rancho Gordo speciality food company grows and sells heirloom beans, corn and other indigenous "New World" ingredients.

He launched an expedition (or was that a vacation?) in Mexico in mid-April, researching the possibilities of adding huitlacoche to his product line in the lucrative, gourmet-haven of Northern California.

We're talking about an epicurean wonder here, an exquisite delicacy both nutty and earthy with a hint of fruity sweetness.

When huitlacoche attacks corn, the insidious-looking pustules that bubble up don't just force the husk to explode, it forces the metabolic process inside the cob to change, creating new, healthier nutrients.

Take lysine, one of those "essential amino acids" that the body requires but can't manufacture. We need it to fight infections and strengthen bones. Bodybuilders pound lysine when they want to build muscle, and estheticians recommend it to keep skin looking young.

Story continues below

Corn has virtually no lysine; huitlacoche is loaded with it. It also is packed with more beta-glucens – the soluble fiber that gives oatmeal its well-known cholesterol-cutting power – than, well, oatmeal.

Sando began his hunt in Xochimilco, a community on Mexico City's south side, where huitlacoche-munching Aztecs first built floating fields atop rafts of wood and soil – and where the chaotic market smells of garlic, bananas and raw meat. His intrepid leader was cultural culinary tour guide Ruth Alegria, a bilingual chef who coordinates the International Association of Culinary Professionals in Mexico.

There they find baskets overflowing with clumps of huitlacoche.

"Amazing, beautiful, wow," said Sando, delightedly turning over a handful of huitlacoche, which quickly stains his fingers black. He talks to proprietors, examines the fresher, blueish-white cloudy carbuncles selling for \$1.45 per pound and the ashier, aging ones, a few hours older, discounted to sell quickly for \$1.18 per pound before they get slimy.

"It's gorgeous today," says Alegria. "My mouth is watering!"

They make their way to food stands where they savor steaming, thick corn patties filled with chopped huitlacoche, onions and corn kernels washed down with mugs of hot coffee.

Warm and delicious, this exquisite meal – eaten today on greasy paper amid the grimy chaos of the bustling marketplace – would get rave reviews on a china platter at the world's finest restaurants, the connoisseurs agree.

Indeed it has, periodically, appeared on some of the finest menus, including once at the James Beard House in New York City. Other chefs include it as a speciality on the rare days they manage to obtain some: There's huitlacoche stuffed chicken breasts at La Cocina Michoacana in Cedar Park, Texas; huitlacoche quesadillas at Tu y Yo in Boston; and at La Casita Mexicana in Los Angeles, they blend the huitlacoche into a tamale masa, then stuff the entire tamale into a large, roasted chili.

The name huitlacoche (also cuitlacoche) comes from two indigenous words: cuitlatl (excrement) and cochi (sleeping). In the U.S., farmers call huitlacoche "corn smut" in polite company and "devil's corn" among themselves. The fast moving blight can wipe out 5 to 10 percent of a crop and the black dusty spores gum up harvesting equipment. Corn growers, along with the federal government, have spent millions of dollars eradicating it and developing smut-resistant strains, with only partial success.

Even Sando has tossed blighted sections of his organic heirloom corn fields. Tasting what was once a bane to his business, he now sees new opportunity: "I am SO excited! I am definitely going to give this a try. It would be easy to infect one of my fields and start growing this," said Sando.

Researchers at University of Wisconsin convinced a local organic farmer in 2007 to deliberately infect a field of corn with the fungus, and then harvest and sell it.

Their findings: An ear of huitlacoche costs about 41 cents to produce and sells for about \$1.20. By comparison, an ear of sweet corn costs about less than a dime, with profits of just a few cents per ear.

Sando has few competitors in the fresh market, even though gourmet chefs pay \$20 or more per pound for a chance to add the delicacy to their menus. But there are several Hispanic food companies, including San Marcos and Del Fuerte, who sell canned huitlacoche in the U.S.

"Our consumers are either of Mexican origin, or foodies who have traveled in Mexico and enjoy the taste," said Joseph Perez, senior vice president of New Jersey-based Goya Foods, the largest, Hispanic-owned food company in the U.S.

Huitlacoche is a niche product, overshadowed by beans and chilies, salsas and sauces. But Perez said sales are steady – and profitable.

Still, if fresh huitlacoche has an image problem, the canned product – slimy, black and goopy – has even more to overcome.

"It's safe to say this is the first time I've ever paid for an infection," wrote "The Sneezee," a blogger who bravely sampled canned huitlacoche recently for his "Steve, Don't Eat It!" website.

His reaction? "So, how does huitlacoche taste? Does it matter?? LOOK AT IT! I guess it would be fair to say it doesn't taste as truly horrible as it looks. The flavor is elusive and difficult to describe, but I'll try: 'Kinda yucky.'"

Sando knows he's got an aesthetic challenge, if not culinary.

"The real question is how to market this. People might freak out at the sight, I mean, it's kind of a like this grayish, black brain," he said, "but if we can get them to taste it, we'll have them."

by an anonymous Cornell Mycology student, written for the Cornell Mushroom Blog

Although I grew up equidistant from a large woodland and the local grocery store, I never would have thought that they contained some of the same products. The woods had carefully marked trails and swimming holes, the supermarket carefully marked bins of produce and even mushrooms. But the second week of my Field Mycology class, I collected my first bolete, something I'd thought I could only buy dried at my supermarket. The process of finding and eating boletes is much different in the wild than it is in civilization, so I'll describe the path from the forest to the mouth for a delicious bolete.

The most coveted boletes belong to the *Boletus edulis* group (right), and are rarely found fresh in stores; generally only dried boletes appear. Unlike white button mushrooms, boletes are not saprobes that can grow on compost; they are mycorrhizal, forming relationships with trees. Due to the expense and complications of trying to cultivate a mushroom with a specific tree, there has been little success, so boletes are always collected from the wild, making them uncommon and expensive in supermarkets. However, the good news for collectors is that because they are mycorrhizal (symbiotic with certain trees), they will recur in the same places each year.

Because boletes are mostly water, dried boletes barely resemble fresh ones. While the dried boletes appear very similar to other dried mushrooms, fresh boletes are thick and fleshy, and distinct from other mushrooms because they have a thick sponge of tubes (often yellow) on the underside of the cap, instead of gills. However, although it is generally easy to recognize a mushroom as a bolete, identifying your bolete to species can be more difficult. This is an important step, because many boletes are either poisonous, or simply not pleasant to eat. (In France, pharmacists will check your mushrooms for you—all are trained in mycology).



My first bolete was *Boletus parasiticus* (at left). This mushroom is easily identified because it grows out of an earthball (*Scleroderma* sp.). Although it is not poisonous, one should be careful before eating it because the earthball is poisonous, and has

powdery, easily distributed spores. Choice mushrooms from the genus *Boletus* include *B. appendiculatus*, *B. regius*, *B. badius*, *B. erythropus*, *B. mirabilis*, and *B. zelleri*. Other good edibles are found in other bolete genera, including *Suillus*, *Leccinum*, and others. Some are not so good, including, for example, the bitter boletes of the genus *Tylopilus*, (right) which will give you a belly ache, *Boletus satanus* and allies (anything named after the devil is likely to be poisonous), and a fatally poisonous Australian species of *Rubinoboletus*. [Editor's note: don't try to identify your boletes based on our story--consult



a more comprehensive source like Michael Kuo's MushroomExpert.com, or Bessette et al.'s big bolete book²]

Once the mushrooms have been properly identified, it's time to begin preparing them. Boletes rot quickly; any wet and mushy undersides or insect-filled stems should be discarded. The hard or fibrous stem of an older bolete should also be removed. The best boletes are small and firm. The choicest specimens can be served raw, thinly sliced with lemon juice and oil. However, there are a variety of cooking methods to best showcase the meaty flavor of boletes.

The classic French method includes three stages. First, the mushrooms are partially dried in the oven to remove some of the water. Then, they are stored in the exuded liquid, so that the flavor is not leached away. Finally, they are sauteed, to brown and cook them.

And though I may have seemed to disparage dried boletes as very unlike fresh boletes, dried boletes are not inferior. In fact, the distinct change that takes place during drying is seen by many as an improvement. The enzyme action and browning reactions that take place during drying give the dried bolete a powerful taste that can be used to infuse many foods with its umami flavor. And they last as long as a year.

Dried boletes should first be soaked for 30 minutes, and as with fresh boletes, the liquid is highly flavorful. When the rehydrated boletes are sauteed, they will have more flavor if they are cooked with the liquid. Although the texture of these are lacking, they are excellent for adding flavor to soups, or as flavoring in salads or meats. One interesting suggestion is to add a small amount of dried boletes to ordinary cultivated white mushrooms to give the dish a much richer and deeper flavor.

No matter how you eat 'em, boletes will give your food a meaty and earthy flavor reminiscent of the forest they came from.

References:

1. Bessette Alan, Arleen Bessette, and David Fischer, *Mushrooms of Northeastern North America*. Syracuse University Press, 1997.
2. Bessette, Alan E., William C. Roody, and Arleen R. Bessette. *North American boletes : a color guide to the fleshy pored mushrooms*. Syracuse University Press, 2000. [A great, big book of boletes that is worth buying if you're a bolete nut --Ed.]
3. Davidson, Alan. *The Oxford Companion to Food*. Oxford University Press, 2006.
4. Kuo, Michael (2002, June). The genus *Boletus*. Retrieved from the MushroomExpert.Com Web site: <http://www.mushroomexpert.com/boletus.html>
5. McGee, Harold. *On Food and Cooking*. Scribner, 2004.
6. Smith, Craig S. "Harvesting by the Basket What France's Diners Crave." *The New York Times* (Nov 16, 2006). Accessed 22 Oct. 2007
7. Wolfert, Paula. *The Cooking of Southwest France*. John Wiley and Sons, Inc., 2005.
8. Yun, Wang and Ian Hall. "Edible ectomycorrhizal mushrooms: challenges and achievements." *Canadian Journal of Botany* 82.8 (2004): 1063-1074
9. Pauli, J. L., and C. L. Foot. 2005. Fatal muscarinic syndrome after eating wild mushrooms. *Medical Journal of Australia* 182:294-295. [*Rubinoboletus* sp., Australia]

Image of *B. parasiticus* by Kent E. Loeffler
Image of *Tylopilus felleus* by Kathie Hodge

<http://blog.mycology.cornell.edu/?p=274>

SOMA Membership Application and Renewal Form

Regardless of what others may think of me, I wish to become a member of the Sonoma County Mycological Association, a Non-Profit, 501 (c)(3), Corporation dedicated to the promotion of the knowledge and appreciation of local fungi.



(Please Print) New Member Renewal
Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone(s): Home: _____ Cell: _____
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I am interested in participating in the following activities (Check):

Culinary Group _____ Mushroom Forays _____ Cultivation _____
Mushroom Dyes _____ Mushroom Papermaking _____ Newsletter _____

Other ideas/comments: _____

SOMA will not share your info!

Date: _____

- \$25 for family membership (mailed SOMA News, plus website download if desired)
- \$20 for family membership who do not require a mailed newsletter (website download only)
- \$20 for seniors with mailed newsletter (60 years +) (plus website download if desired)
- \$20 for seniors—website download only, (help SOMA and the environment out!)
- \$250 for Lifetime Membership with website download!

Checks to: **SOMA**
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Santa Rosa, CA 95407

www.SOMAmushrooms.org

YOU CAN NOW RENEW/JOIN ONLINE AT THE WEBSITE!

ANNOUNCEMENTS

For those interested in visiting **Tibet** and experiencing the fantastic mushrooms there, MushRoaming tours will be hosting two trips in 2010.

1. Cordyceps Expedition to East Tibet **May 24 to June 6, 2010**
2. Fungal & Floral Foray in Tibet **July 14 to 27, 2010**

More info at: www.MushRoaming.com

SOMA friend **Daniel Winkler** leads these tours and I am sure they are a lifetime experience. An interesting article by Daniel can be found at link below.

"The Mushrooming Fungi Market in Tibet exemplified by *Cordyceps sinensis* and *Tricholoma matsutake*"

<http://tinyurl.com/yzwo783>

Italy Truffle Tours in October

More info:

David Campbell
MycoVentures
415-457-7662

<http://snipurl.com/v3bqq> [www_mycoventures_com]

NAMA 2010 - 50th Anniversary Foray

August 12-15, 2010, at the YMCA Snow Mountain Ranch, Winter Park, Colorado

Information at NAMA and CMS (Colorado Mycological Society)

Co-Chief Identifiers: Cathy Cripps, Vera Evenson

Faculty: Scott Bates, Denis Benjamin, MD, Michael Beug, Roy Halling, Rick Kerrigan, Michael Kuo, Brandon Matheny, Michelle Seidl, Jack States, Walt Sundberg, Rytas Vilgalys, Tom Volk, Nancy Weber

The Colorado Mycological Society is delighted to welcome NAMA to the Centennial State for NAMA's 50th Anniversary Foray, August 12-15, 2010. The foray will be held at the same location as NAMA's memorable 1983 foray, YMCA of the Rockies Snow Mountain Ranch, 14 miles from Winter Park, high on the western slope of the Continental Divide at 8,700 feet. Nearby Rocky Mountain National Park is celebrating its 95th Anniversary this year, and at least one of our forays is planned to study fungi in that area.

We hope to see you in August!

Deadline for the September 2010 issue of SOMA News is August 21st. Please send your articles, calendar items, and other information to:
SOMAnewseditor@SOMAmushrooms.org

Info at:

<http://www.namyco.org/events/index2010.html>

Linnea Gillman

Colorado Mycological Society NAMA 2010

Telluride Mushroom Festival

August 26-29 This year's festival features three well-known mycologists: Paul Stamets, John Winslow and Gary Lincoff.

More info at: http://www.tellurideinstitute.org/page_62



The local wine-sipping and oyster swallowing. The oysters were available both raw and bar-bee-queued. Yum!
Photo and caption by **George Riner**

SOMA News

P.O. Box 7147
Santa Rosa, CA 95407

SOMA
DIVINE MUSHROOM
OF IMMORTALITY

R. Gordon Wasson



SOMA Members

The May Issue of
SOMA News has arrived!

SOMA usually meets on the third Thursday of the month throughout the year (September through May), at 7 PM, at the Sonoma County Farm Bureau, 970 Piner Road, Santa Rosa, California.

Fungi are displayed at 7 PM, and speakers begin at 7:45 PM. Bring in your baffling fungi to be identified!

Directions to the Sonoma County Farm Bureau

Coming from the south:

- Go north on Highway 101.
- Past Steele Lane, take the Bicentennial Way exit.
- Go over Highway 101.
- Turn right on Range Ave.
- Turn left on Piner Road.
- At about ¼ mile, turn left into parking lot at 970 Piner Road.

Coming from the north:

- Go south on Highway 101.
- Take the first Santa Rosa exit, Hopper Ave/Mendocino Ave.
- Stay left on the frontage road, (it becomes Cleveland Ave after you cross Industrial Drive).
- Turn right on Piner Road.
- At about ¼ mile, turn left into parking lot at 970 Piner Road.

970 Piner Road is marked by a star on the map at right.

