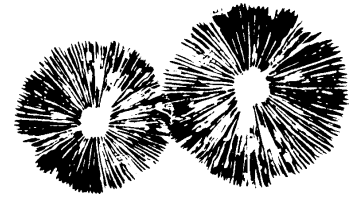


SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY

Number 388

January 2003



DUES ARE DUE!

To renew your membership, please fill in and return the enclosed form, along with appropriate dues. Even though you may have filled in a form previously, we would appreciate your filling it in again so we can update our database. Thanks.

MEET DENNIS OLIVER

Brian Luther

Dennis is the newest member of my ID committee, and he comes to us with outstanding credentials: A graduate in botany from the University of Washington (UW), a graduate student working under Dave Hosford at Central Washington University (CWU), and a research assistant under Orson K. Miller at Virginia Polytechnic Institute and State University. Dennis and I were undergraduates together in the Botany Department at the UW in the early '70s and share many memories of Dr. Stuntz, the fascinating courses he taught, his eccentricities, and his rather unconventional (and definitely unforgettable) lab in Johnson Hall. The graduate research Dennis did at CWU focused on a taxonomic study of the genus *Tulostoma*, which are stalked puff balls. They're quite common in autumn after the rains come to the Eastern Washington sagebrush deserts and western Great Basin and southwestern US desert areas in general. He published two new species and new records of *Tulostoma* from the Pacific Northwest (*Mycotaxon*, 9(1): 277-284) in 1979. His article is in a special volume of *Mycotaxon* dedicated to Dr. Stuntz (while he was still living) and called the "Stuntz Festschrift." The cover prominently illustrates Dr. Stuntz's distinctive signature.



Besides botany, interests include involvement with the local Buddhist and Tibetan community, and he's a practicing Buddhist.

Tall and with a full beard, Dennis looks more like he's been a lifelong lumberjack rather than a botanist. As with many of us who have years of formal academic studies in botany and mycology under our belts (as both undergraduates and graduate students), the need to find some immediate source of income and livelihood sent him into a completely different direction. He's been doing data entry, data processing, and computer work consistently for the past 20 years. Recently he decided he wanted to start getting reacquainted with the Department of Botany at the UW again, and so he has volunteered as an assistant in the Botany Dept. herbarium during some of his time off work. Dennis has been a member of PSMS off and on over the years, (starting in the '70s) but assures me he's now committed and is eager to get involved, help the club, and have fun at the same time. And for this we should all be most thankful.

I'm delighted to have Dennis on the PSMS Identification Committee. If you see him, please take a moment to introduce yourself and say "Hi."

AT \$35,000, BIG TRUFFLE IS NOTHING TO TRIFLE WITH

David Shaw, *LA Times*, 11-11-2002

Joe Pytka, a 64-year-old director of television commercials, paid \$35,000 Sunday for a mushroom.

Well, OK, it wasn't the kind of mushroom you'd buy in your local supermarket. It was an enormous, 2.2-pound white truffle, the rare and exotically perfumed *Tuber magnatum pico* hunted by specially trained dogs in the Piedmont region of northwest Italy and prized by gourmets throughout the world. And Pytka is not just a maker of TV commercials—albeit a hugely successful one. He is also the owner of the newly opened French restaurant Bastide in West Hollywood, where the truffle will be used in a variety of dishes made by chef Alain Giraud.

Pytka made his purchase—by far the highest price ever paid for a single truffle—during the fourth annual charity truffle auction known as Asta Mondial del Tartufo Bianco d'Alba. He did so in a lively bidding war with Tony May, the owner of San Domenico restaurant in New York, and a dog named Gunther IV, heir to a large German fortune, whose bids were made by his owner, Maurizio Dial. Pytka's bids were made by his 12-year-old daughter Arielle (with Pytka prompting her from a seat alongside).

This year, for the first time, the truffle auction was held simultaneously in three places, linked by closed-circuit satellite television. Pytka bid at Valentino restaurant in Santa Monica, where 75 other truffle aficionados were gathered, bidding paddles in hand and wallets open for the recipients of all local proceeds—the Jonsson Cancer Center Foundation at UCLA and the families of the victims of the recent earthquake that killed 26 schoolchildren in San Giuliano di Puglia, about 140 miles southeast of Rome.

May bid from his restaurant in New York, where a boisterous crowd of 120 joined the action. Gunther was at the castle of Grinzane Cavour, just outside Alba, the home of the white truffle. A standing-room-only crowd of 250 inside the castle was joined by 100 others gathered outside to follow the bidding.

In all, 30 truffles were auctioned off, 10 in each location. The biggest truffle, the one Pytka bought, was in Alba. Its appearance on the TV screen brought loud gasps of appreciation from the crowd at Valentino. Most truffles weigh just a few ounces, and the average of the 30 auctioned Sunday was about 9 oz. Daniele Bera of Funghi & Tartufi, a truffle store in Alba, said Pytka's truffle was the biggest he had seen in 17 years in the business.

Los Angeles bidders dominated the proceedings, buying 15 of the 30 and paying \$68,000 of the \$126,000 total that was raised. The total far exceeded the \$50,000 raised last year.

Italian celebrity Massimo Giletti displays the 2.2-pound white truffle that Los Angeles restaurant owner Joe Pytka bought for \$35,000.



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PUGET SOUND MYCOLOGICAL SOCIETY

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MEMBERSHIP MEETING

The speaker this month will be Hildegard Hendrickson. Winner of the 1997 PSMS Golden Mushroom Award, she is a prolific mushroom hunter and one of our best teachers. Hildegard is returning to active PSMS service after taking time out to care for her late husband, Monte. She will be talking about and showing slides of spring mushrooms. It will certainly give us something to look forward to! This is a woman with vast local mushrooming and identification experience. Do not miss this lecture!



If your name begins with the letters G–T, please bring something in the way of tidbits to share after the meeting.

THE TOXICITY OF *TRICHOLOMA EQUESTRE*?

Denis R. Benjamin, Chair, NAMA Toxicology Committee,
extract from *The Mycophile*, NAMA, March–April 2002
via *Mycelium*, Myco. Soc. of Toronto, April–Sept. 2002

“Ladies and Gentleman,” intoned the lecturer, “I have to warn you about an important concern. You are embarking on a career in medicine and our role is to teach you what we know. At least 50% of what we teach you, what we believe to be correct today, will prove to be wrong. Your problem is that you don’t know which 50% that is.”

So began my education in healthy skepticism. As both a contributor to the medical literature and as an editor, I fully understand the fallibility of the medical scientific enterprise. Peer review, the system we all use in an effort to validate a scientific study before publication is a very imperfect mechanism. All this preamble is to set the stage for my remarks about the study published in the *New England Journal of Medicine* about the possible toxicity of *Tricholoma equestre*.

As you all probably know by now, because it was published in a “prestigious” medical journal and provoked much commentary in the lay press with dramatic headlines like “The Muscle Destroying Mushroom,” a group of investigators in France described twelve individuals who suffered muscle damage. They ascribed this process, known as rhabdomyolysis, to eating large quantities of *T. equestre* over a three-day period. Supposedly they excluded the many, many other causes that can produce the identical symptoms, such as exercise, drugs, infections, cold, alcohol, endocrine disorders, etc.

The report is intriguing, but it raises numerous questions that were not addressed in the manuscript, such as:

- Complete clinical histories including exertion, dietary, and drug details of each patient. They should also have included the quantity of mushroom material actually eaten, the mode of preparation, who identified the mushrooms, and any alcohol ingestion.
- The fate of control subjects. Eating alone is not a common ethic in France, and presumably friends or family shared these meals. How many other individuals ate the same mushrooms and in what quantity, and did all who ate the mushrooms develop symptoms?
- What were the heavy metal concentrations in the mushrooms?
- Could the mushrooms have been contaminated with pesticides, solvents, etc.?

CALENDAR

Jan. 14 Membership Meeting, 7:30 PM, CUH
Jan. 20 Board Meeting, 7:30 PM, CUH
Jan. 21 *Spore Prints* deadline

DUES INCREASE FOR 2003

Karin Mendell

As your president, I need to announce a dues increase starting with renewals for 2003 (see enclosed renewal form). This was a painful decision, and I want to include an explanation of why we felt it was necessary.

Over the past year, we have been barely meeting operating expenses. Our membership fee of \$20 actually covers only the cost of producing the newsletter. This means that all other activities are subsidized by PSMS. Fees for use of the Center for Urban Horticulture for classes, monthly membership meetings, etc., have increased. Next year the Sand Point facility used for the Annual Exhibit will require a round-the-clock security staff, which we have not had to pay for in the past. In the present economy, all costs will continue to rise.

We have not had a dues increase for the past 7 years. An increase seemed a necessary step to maintain the fiscal stability of PSMS.

This may seem ironic in view of the fact that for 12 years we have maintained an investment portfolio (known informally as the “building fund”). This fund was established specifically to ensure a future home for PSMS. Before then, we shuttled from facility to facility every few years. In 1988, we collected (mostly from donations of members) the amazing sum of \$25,000, which enabled us to become residents at CUH for 25 years. To prevent the need to ask for donations again, a “building fund” was established from operating expenses to enable continuing at CUH or locating another appropriate space when our lease expires in 2013.

- Did these patients have any genetic predisposition to muscle disease? How was this possibility investigated?
- Is this isolated to only one region of the country?
- Is there a geographic/environmental difference in the putative toxin production?
- Is the *T. equestre* in France really the same species as the *T. flavovirens* in the USA as is claimed?
- Is there any evidence of toxin in similar mushroom collections from the USA?

The experimental data were also fraught with problems. The quantity of mushroom extracts administered to the mice equates to a total of 6.6 pounds of mushrooms ingested over three days, by a 150-pound human—a prodigious and unrealistic quantity. The mushroom extract itself showed barely a twofold rise in the CPK enzyme, which is less than impressive. Moreover, to claim a dose-dependent effect when only three groups of three mice each were tested stretches statistics to its outer limits. The remainder of the experimental data is equally problematic since highly concentrated extracts were employed.

We have searched all the records of the Mushroom Poisoning Case Registry of the North American Mycological Association (NAMA) and cannot find a single reported instance of toxicity due to *T. flavovirens*. The only reports of any rhabdomyolysis were in an 18-year-old who had seizures following ingestion of *Psilocybe cubensis* and a case in which both morels and false morels (*Gyromitra* species) were eaten. There is another recent report of rhabdomyolysis due to consumption of *Russula subnigricans*. This, too, needs further investigation.

In the meantime, we have to respond to this study, problematic as it is, since it was published in a prestigious journal, which puts a de facto scientific stamp of approval on it. In view of this, I would recommend that we discourage the consumption of *Tricholoma equestre*.

Only time will tell if this single observational study belongs in the true column or will be relegated to the sidelines.

PLAYING WITH THOR

William N. Windsor

condensed from *Spores Afield*, Colorado Myco. Soc., July 2002

It was early August, and I had spent the afternoon in the mountains, visiting one of my favorite grounds to collect King Boletes (*Boletus edulis*). I had already filled my basket with King Boletes and a few choice *Agaricus silvaticus* when I noticed that the steep hillside where I had ended my search appeared to flatten out about 60 feet higher up. It was then that I first heard the distant rumblings of thunder, and I paused for a moment to weigh my choices.

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

Upon reaching the flat, I could see it was a great looking environment. I immediately spotted large numbers of those most commonly depicted mushrooms, *Amanita muscaria*. An *A. muscaria*

in its prime looks spectacular. I stopped to examine a particularly beautiful specimen and lingered to contemplate its association with man over the ages. As its common name, the Fly Agaric, suggests, it makes an excellent poison to rid a household of flies. Norse warriors ingested it before going into battle.

KA POW!

The simultaneous flash of lightning and clap of thunder jerked me from my daydreaming of mad Norsemen and shamanistic rites. Rain started to fall, and I realized that I had lingered too long. As I was making my way downhill to my truck, another bolt of lightning struck close uphill, and I quicken my pace. Then a bolt of lightning struck a tree about 50 feet in front of me. The tree burst into flame with bits of bark blowing out in all direction. Yikes! I had the feeling that my contemplation of tripping Norsemen had somehow brought me to the attention of the Norse god Thor. Thor was doing a little target practice, and I was the target!

KA POW!

Yikes, Yikes, Yikes! That was much too close! I was now running full speed for my truck spilling mushrooms as I ran. With great relief I reached the truck shortly. I did not linger in the forest, but drove to the fire station to report the burning tree. At the station we rounded up some field equipment and returned to the area in a small six-wheel-drive engine. By this time the storm had passed, and we quickly extinguished the small blaze.

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

CHICKEN MARSALA WITH SHIITAKE Jerry Pepera

The Mushroom Log, Ohio Mushroom Soc., July/August 2000

- 4 4-oz. boneless chicken breasts
- 2 cups sliced shiitake mushrooms
- 1/2 cup dry Marsala wine
- 1/2 cup water
- 1-1/2 tsp fresh thyme
or 1/2 teaspoon dried thyme, crushed
- 1 tsp fresh rosemary or
1/4 tsp dried rosemary, crushed
- 1/8 tsp salt
- 1/8 tsp freshly ground pepper
- 2 TBS olive oil
- 1 tsp cornstarch
- Hot cooked linguine (optional)



Place first eight ingredients in a plastic bag and marinate in refrigerator for at least 30 minutes. Remove chicken from marinade and pat dry. Save marinade. In a large skillet over medium heat, cook chicken in olive oil until just done, turning once. Remove chicken, cover, and keep warm.

Remove mushrooms from marinade and add to skillet. Cook until done. Add rest of marinade to skillet. Bring to a boil and reduce heat. Simmer, covered, for several minutes. Mix cornstarch with 2 tsp cold water and add to mixture. Cook and stir until thickened.

If desired, serve the chicken and mushroom mixture over linguine. Enjoy!

Longtime member and past-PSMS president Gilbert Austin died on November 20th. Our condolences to his family.

BOARD NEWS

Brandon Matheny

Most of the meeting was spent discussing finances. Although the Lake Quinault Foray and the annual exhibit were a financial success, the club is ending the year about \$700 in the red. After much discussion, the board reluctantly decided to increase the membership dues \$5; the last dues increase occurred 7 years ago. Renewal slips will go out in January. Spring field trips have been planned, with a possible spring foray in the works. A new printer will print the January *Spore Prints*. The Circle 8 Ranch was discussed as a possible spring or fall foray site. A new venue for the 40th mushroom show will also be looked into.

MUSHROOMS, RADIOACTIVITY, AND HORMESIS

Cookie Shannon, *Spores Afield*, Colorado Myco. Soc., July 2002

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

Analyses published in 1997, 12 years after Chernobyl, on wild mushrooms collected in eastern France indicated that some were still accumulating considerable amounts of cesium 137 (cesium 134 had almost disappeared.) Among those with a count from 1000 to 3000 Bq/kg in 1996 were *Cantharellus lutescens*, *Rozites caperatus*, *Hydnum repandum*, *Lepista nuda*, *Cantharellus tubaeformis*, *Xerocomus badius*, *Suillus luteus*, *Laccaria myesthesia*, *Tricholoma terreum*, and others. (*Lactarius deliciosus* registered 400 to 1000 Bq/kg.) Since 1999, the permissible amount of cesium 137 contamination in mushrooms imported into European Union countries is 600 Bq/kg of fresh matter.

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

It has been estimated that it will take 30 years to lose half of the radioactivity and 50 years or longer for normal levels of radioactivity to reappear in the mushrooms that are now designated radioactivity accumulators. Should we eat them? According to the theory of hormesis, maybe no, maybe yes.

What is hormesis? Many minerals and vitamins are toxic for organisms at high exposures, but small amounts can produce better performance or fitness than at zero exposure. Surprisingly, there is accumulating evidence for radiation hormesis. If natural selection favors maximum fitness of organisms in their habitats, and hormetic agents are a normal part of our habitats (including some metals that are toxic at high concentrations), perhaps small amounts of radioactivity in mushrooms are not as harmful as we might think. You be the judge!

McGee, MS



Gloria Barber, ©2001

page 4



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