

SPORE PRINTS

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Spore Prints

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Brenda Fong updated the board as to the preparations for our **December social** from 7:30 to 9:30 pm, December 10.

A **Nominating Committee** (PSMS president Colin Meyer, vice-president Joe Zapotosky, and immediate past-president Randy Richardson) was appointed to find nominees for the positions of President, Secretary, and five Trustees.

The **Strategic Planning Committee** has been studying the previous 2018 strategic plan and has set a tight timeline to move forward and build on it during the next few months. This is an extremely heavy-lifting item, and the board is grateful to Megan Brewster, Colin Meyer, and Peg Rutchik for taking up this vital task.

After a quick discussion regarding our 2025 Annual Wild Mushroom Show (you read it right, work is already under way!), the last item on the agenda was the much-needed improvements to our **website**. A work group has come together, and meetings will be starting soon to explore available options, assess PSMS's needs, and draft tentative budgets.

We look forward to seeing you all at our December social. Have a wonderful holiday season!



MEMBERS MEETING & HOLIDAY SOCIAL

Brenda Fong

Date: December 10, 2024 (Tuesday)
Time: 7:30 pm to 9:30 pm
Cost: \$10 per member
Place: UW Center for Urban Horticulture



Our December *members only* meeting (no Zoom) will be a trustee-hosted "Holiday Bash." This event will include light finger foods and alcoholic and non-alcoholic beverages. COVID restrictions have been dropped, so masking is optional. We will have hand sanitizer available. Doors will open and check-in will begin at 7:00 pm.

This will be a good opportunity to share your mushrooming foraging successes after an outstanding fall mushrooming season and to get to know others in the club. Books and mushroom-related merchandise will be available. Once again, we are renting the atrium and garden areas to allow people to spread out, get some fresh air, and mingle in small groups.

As space is limited, we require pre-registration to attend. Sign-ups will begin on December 1 and you will be receiving a special announcement in your e-mail providing details upon signing up.

This event is hosted by your PSMS board (past and present) and provides an opportunity to meet them as well as our committee chairs.



CALENDAR

- Dec. 10 Membership meeting & holiday social, 7:30–9:30 pm, CUH (members only; pre-registration required)
- Dec. 16 Board meeting, in-person and via Zoom, CUH boardroom, 7:30 pm
- Dec. 17 *Spore Prints* deadline

BOARD NEWS

Carolina Kohler

Ron Post and Dennis Oliver have been spearheading efforts to reinvigorate the **Conservation and Ecology Committee**. Ron gave a quick recap of the committee's beginnings back in the 80s its initial goals; the board approved designating Ron and Dennis as co-chairs of the committee, and four board members on the spot expressed interest in being part of it. Ron and Dennis plan to have a total of six PSMS members and up to two nonmembers representing other organizations, and meetings will be quarterly. Interested members should contact Ron and Dennis.

FUNGI THAT ARE NECESSARY FOR A MERRY CHRISTMAS

Tom Volk

There are a number of beneficial fungi that are necessary for Christmas festivities.

Christmas Trees

The primary, although indirect, benefit of fungi to people is mycorrhizae, which are associations between fungi and the roots of plants. Approximately 90 percent of plant species in nature have a mycorrhizal association with a fungus! Of course the primary Christmas thing that is the direct result of this association is the Christmas tree. Without the fungi the trees would not grow very well at all—at most a couple of feet or less than a meter tall in ten years!



Most of the Christmas trees from the north (pines, firs, Douglas fir, spruces) are ectomycorrhizal—they form an association with Basidiomycota (and a few Ascomycota), which form fruiting bodies (mushrooms) that are very familiar to most of us. Some other evergreen trees (juniper, cypress) form endomycorrhizae with microscopic members of the Glomeromycota (formerly called order Glomales of the Zygomycota), so there are never mushrooms under those kinds of trees. The fungi receive sugars from the plants' photosynthesis and, in return, the fungi provide the plants with increased absorption of water and mineral nutrients. Both the plants and the fungi benefit from this association.

... and while we're at it, don't forget about that partridge—where would it sit without that endomycorrhizal pear tree?—and where would we get our figgy pudding without that mycorrhizal ficus tree?



Paper Products

The necessary and beneficial effects of mycorrhizal fungi for all trees (and almost all plants) has been noted above. Without trees there would be virtually no paper—and no wrapping for those Christmas presents.



Nuts and Chocolate

Without nuts, we would have no need for the Nutcracker Ballet! All nut trees have a mycorrhizal association with a fungus that helps them survive and prosper.



The natural bitter cocoa beans are processed into a sweet tasty candy by a "fermentation" (sensu food-scientists) of *Candida krusei* and *Geotrichum*. Sounds yummy! In addition, cacao trees survive because they have mutualistic mycorrhizal associations with *Acaulospora scrobiculata* and other fungi.

Spirits of Christmas

Saccharomyces cerevisiae, the brewers' yeast, is necessary for wine, champagne, beer, eggnog, and other holiday spirits. They undergo anaerobic fermentation, producing ethyl alcohol and carbon dioxide, both of which are im-



portant in champagne and beer making. Of course, the alcohol is the major product in wine and the other spirits

Edible Mushrooms



You can't have Christmas dinner without mushrooms! Edible mushrooms are delicious and nutritious. Many contain a protein profile (amino acids) that rivals that of beans. Most contain large amounts of B vitamins and minerals.

Cheese

You probably know that most cheeses are made from the action of the enzymes of certain bacteria in curdling the milk. The curds fall out of solution and are pressed together to make a block of cheese, which is then aged. Many good cheeses, such as blue cheese, Camembert, and brie, have an additional step: They are ripened through the action of fungi. Blue cheeses (such as Roquefort, Gorgonzola, and Stilton) are ripened by *Penicillium roquefortii*—the blue color is caused by sporulation of the fungus! The white crust on the outside of brie and Camembert is the mycelium of *Penicillium camemberti*.

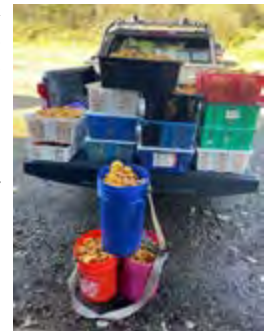


NEARLY 180 POUNDS OF ILLEGALLY HARVESTED MUSHROOMS SEIZED BY WA FISH & WILDLIFE

Lexi Herda

KIRO 7 News, Nov. 18, 2024

Washington Department of Fish and Wildlife (WDFW) says it cited two men for trespassing after they illegally harvested almost 180 pounds of chanterelle mushrooms.



179 pounds of mushrooms seized by Washington State Dept. of Fish & Wildlife.

WDFW says it is illegal to harvest over five gallons of wild edible mushrooms without a specialized forest products permit. Landowner permission is required to possess smaller quantities from private property.

A WDFW sergeant came across the pair while patrolling for deer. When asked how they got onto the property, they told the sergeant they waited for someone to open the gate and drove in behind them.

The sergeant says the men initially denied having harvested any mushrooms and then stated they had "some," but didn't specify how many.

The sergeant inspected their truck and found 179 pounds of chanterelle mushrooms.

"The mushrooms were taken to a buyer and sold with the proceeds being held by the court," WDFW said in a Facebook post.

FIELD TRIP REPORT, Nov. 2, 2024 Brian S. Luther

This was a brand new venue that Pam and I discovered earlier in the year. It was quite satisfactory, but parking ended up being somewhat of an issue. We had 105 members sign in. The day, which started out just cloudy, became a bit sunny later in the morning, but rain was predicted for the afternoon.

Julia Barnett and her dad, Anthony, were our morning hosts, and they did a great job getting coffee, hot water, and breakfast snacks out for all. However, they also had to deal with the unfortunate challenge of the shelter losing power. This happened after almost everybody had already had their coffee, so it wasn't as bad as it could have been. The GFI circuits in the shelter had to be re-set several times because coffee pots and a hot pot were all going at once. Finally we totally lost power and did not have access to the circuit breaker panel. Thank you, Julia & Anthony—we all appreciated what you did!

Eight field trip guides volunteered to take out groups of beginners. Thanks to all of you who contributed.

Wren Hudgins came over on the Friday before and together we did some scouting and collecting most of the day. We went back to a location that was very productive at our first fall field trip and the mushrooms seemed even more abundant! So, we directed several of the field guide groups back to this area, with everyone finding lots of chanterelles. The second most commonly collected edible was the Winter Chanterelle (*Craterellus tubaeformis*), along with two different species of Hedgehog Mushrooms (*Hydnum umbilicatum* & *H. washingtonensis*), along with smaller collections of several other miscellaneous edible species. A couple of big *Sparassis radicata* were also found, to the delight of the collectors.

Some of the edible mushroom found on Nov. 2.



Wren Hudgins

I counted 150 different species of fungi collected and spread out on three 6-ft. folding tables I'd brought. Unusual or rare fungi found included *Pholiota scamba*, a cute little lignicolous mushroom, *Clitocybe sclerotoidea* parasitic on an aborted *Helvella vespertina*, which I had not seen in many years, as well as a thick black gelatinous Ascomycete similar in appearance to *Urnula padeniana*, which we normally see only in spring and usually just in eastern Washington.

About 40 stayed for an excellent end-of-day potluck, with everybody crammed into the shelter and under another 10 ft. canopy set up, because it was raining pretty good at the time.



Brian S. Luther

Potluck on Nov. 2 field trip.

This ended our 5th and last fall field trip. Stay tuned for the spring, 2025 outings, which my wife and I are already working on. They'll start in late April. Hoping you all had fun and good educational experiences at the field trips and best wishes for a great holiday season and a happy new year!

FIELD TRIP REPORT, Oct. 26, 2024 Brian S. Luther

One hundred and twelve members signed in at this location, and 44 were on their first PSMS field trip. It rained all day, and we were lucky to have the use of this excellent shelter with lots of amenities. When we first arrived in the dark, the power was out so we were unable to turn on the lights and make hot water and coffee. I brought a lot of firewood and got the fire going right away, which helped, and I kept it going all day. The power did finally come back on around 2:30 in the afternoon.

Our morning hosts were Kitty Loceff & Nichole Schmitt and husband. Nicole had her camper van and helped to get some coffee and hot water going for us in the meantime. However, Kitty had to go into town to get most of the coffee. That's where she discovered that most of the town was also out of power. In spite of the unexpected problem of no power, Nicole and Kitty did a great job getting all the morning snacks and coffee out for a sizable crowd of members. Thank you!

We had six field trip guides—Andrew Graesser, Randy Richardson, Dan Paull, Dave Weber, Peter Hasegawa, and Marcus Sarracino. Thanks, guys, for helping new members.



Kitty Loceff

Brian Luther discussing some of the mushrooms found on the Nov. 26 field trip.

Many members found at least some chanterelles, both *Cantharellus formosus* (yellow) and *C. subalbidus* (white) as well as quite a few Winter Chanterelles (*Craterellus tubaeformis*). Other good edible species included numerous Zeller's Bolete (*Xerocomellus zelleri*), several collections of Angel Wings (*Pleurocybella porrigens*), a few Oyster Mushrooms (*Pleurotus ostreatus*), Gypsy Mushrooms (*Cortinarius caperatus*), some Lobster Mushrooms (*Hypomyces lactifluorum*), and a single mature King Bolete (*Boletus edulis*), which was surprisingly bug free. Debbie Johnson found the prize of the day: a gorgeous large Cauliflower Mushroom (*Sparassis radicata*) in excellent condition.

I counted 115 different species displayed on six picnic tables, as well as along the inside ledge of the shelter. Interesting and colorful species included several members of the family Hygro-

phoraceae, including the white *Hygrophorus chrysodon* golden yellow granules on the cap and stem, *H. camarophyllus*, *H. piceae*, *Cuphophyllus pratensis*, *Gliophorus psittacinus* being both slimy and green, *G. laetus* being pale yellow and viscid, the beautiful bright yellow *Hygrocybe flavescens*, bright red-orange and conical-capped *H. singer*, and the lovely orange *H. miniata*.

About 25 people stayed for the end-of-day potluck. All went away satisfied after a delightful day out in the woods, even if it was wet.



THE STATE OF MYCOLOGY AT THE UW

Liv Filialuna

Following Dr. Joseph F. Ammirati's retirement from the University of Washington, I have overheard many statements of concern regarding the continuation of mycology and the preservation of the fungal collections. No one has been hired by the Biology Department, but Dr. Claire Willing was hired by the School of Environmental and Forest Science Department in the Fall of 2023, along with Dr. Fransisca Santana and Dr. Sameer Shah as part of a Climate Adaptation Cluster program.

Professor Willing now works as the Principal Investigator for the Forest Mycobiome Laboratory. The FM Lab focuses on fungal ecology, specifically investigating the impacts of climate change on fungal communities and the functional implications for plant hosts and communities. Current graduate students include Mira Ranganath, focused on post-fire fungi, Sarah Winkowski, focused on the movement of forest systems into alpine meadow systems, and Suvi Birch, focused on ectomycorrhizal communities within Sequoias. The FM Lab also hosts lab technician Ellie Fajer.

Until recently, I had been splitting my time between managing the FM Lab for Claire and working under David Giblin as fungal collection assistant at the Burke Herbarium, but now spend all my time at the Burke Herbarium.



ZOMBIE CATERPILLAR FUNGUS COULD BE USED TO SAVE HUMAN LIVES

David Nield

<https://www.sciencealert.com/>, Nov. 15, 2024

A compound found in a parasitic fungus that commonly paralyzes and kills caterpillars has been shown to block pathways critical for the growth of some cancers.

Researchers from the University of Nottingham in the UK built on previous research into the cancer-fighting capabilities of cordycepin, a chemical produced by "zombifying" *Cordyceps* and *Ophiocordyceps* species to assist their infection of a living host's body, often affecting the insect's behavior before killing it.

Advances in scientific techniques enabled researchers to study gene expression, cell signaling pathways, and protein production across a vast number of cells in order to figure out what cordycepin is doing.

"It has become easier and less expensive to do these very large experiments, so we were able to examine thousands of genes at the same time," says RNA biologist Comelia de Moor.

Through lab experiments on human tissue cultures and a genetic analysis of how cordycepin worked on these cells, the team found the chemical was converted into a more active compound called cordycepin triphosphate, which is responsible for inhibiting cell activity.

The researchers found cordycepin triphosphate blocks two separate signaling pathways often hijacked by cancer cells to assist their spread throughout the human body. Although it's not clear yet which molecules cordycepin triphosphate is targeting, the team did find that the chemical appeared to be working quickly.

Further research is required to turn the findings into new cancer treatments, yet understanding how the molecule affects cell growth could set the foundations for new types of cancer drug. Importantly, the precision with which cordycepin triphosphate operates means that it could overcome the challenge faced by many current treatments—trying to take our cancer cells without causing too much damage to healthy tissue.

"We have been researching the effects of cordycepin on a range of diseases for a number of years and with each step we get closer to understanding how it could be used as an effective treatment," says de Moor.

The *Cordyceps* species *C. militaris* has long been used in a variety of ways in traditional Chinese medicine, and can be found in many modern medicines, too, due to their anti-inflammatory and anti-bacterial properties. From obesity to blood clots, compounds found in the natural world are inspiring a whole host of treatments.



Cordyceps militaris on a mulberry silkworm pupa.

Kornwipa Ponganan/Getty Images



Quotes from Albert Einstein in honor of his 125th Birthday, March 14, 1879

Tom Volk

On Intelligence:

"Imagination is more important than knowledge."

"Any intelligent fool can make things bigger and more complex... It takes a touch of genius—and a lot of courage—to move in the opposite direction."

"Everything should be made as simple as possible, but not simpler."

"Anyone who has never made a mistake has never tried anything new."

"He who joyfully marches in rank and file has already earned my contempt. He has been given a large brain by mistake, since for him the spinal cord would suffice."

"Two things are infinite: the universe and human stupidity; and I'm not sure about the universe."

MOLECULAR DETECTION METHOD TRACKS OUTBREAK OF DRUG-RESISTANT FUNGI

Juliane Seeber & Friedrich Schiller

<https://medicalxpress.com/>, Nov. 19, 2024

Candida parapsilosis is a yeast fungus that can colonize the skin and digestive tract of humans and is usually harmless. However, it can cause severe wound and tissue infections, including life-threatening septicemia, in people who are immunocompromised as a result of cancer or organ transplants or with serious medical conditions requiring prolonged hospitalization.

Just as antibiotics are used to treat bacterial infections, antifungal agents are used to treat fungal infections. In recent years, however, the frequency of strains that are resistant to these drugs has increased dramatically, making these infections much more difficult to treat.

A team led by Dr. Amelia Barber from the Cluster of Excellence “Balance of the Microverse” at Friedrich Schiller University Jena and Dr. Grit Walther from the National Reference Centre for Invasive Fungal Infections (NRZMyk) has investigated an outbreak of a multi-drug resistant, hospital-acquired strain of this fungus. The researchers developed a new molecular detection method that can quickly and cost-effectively differentiate strains of *C. parapsilosis*.

The results are published in *The Lancet Microbe*.

A Dangerous Fungus is Spreading

The study provides a detailed genomic analysis of a long-lasting outbreak event caused by antimicrobial-resistant *C. parapsilosis* in several health care facilities in Berlin. The research team found that a single, genetically indistinguishable strain alone caused 33 invasive infections between 2018 and 2022.

Although the number may sound small at first, invasive infections always require intensive medical care and lead to severe impairment of quality of life. What is particularly worrying is that the pathogen was spread from person to person and also across different facilities. Its resistance to the preferred antifungal drugs makes it a serious threat.

Significantly, the strain from the Berlin hospitals was closely related to strains already found in Canada, the Middle East, and East Asia, demonstrating the global spread of drug-resistant fungi.

Development of an Innovative Typing Scheme

In their study, the researchers not only uncovered the genetic relationships and transmission dynamics of the strains of *C. parapsilosis* associated with the outbreak, but also developed a new identification (typing) strategy for this pathogen. This typing strategy, known as Multilocus Sequence Typing (MLST), involves sequencing multiple short DNA regions to genetically distinguish strains. This offers a cheaper and faster alternative to whole genome sequencing.

“The newly developed MLST scheme enables rapid and cost-effective differentiation and tracking of *C. parapsilosis* strains. This allows us to react quickly to new outbreaks and effectively contain this often drug-resistant fungus. This is particularly valuable when genome sequencing is simply not possible due

to cost or lack of local bioinformatics knowledge,” explains Dr. Barber, head of the Fungal Informatics junior research group at University of Jena.

Dr. Walther, co-author of the paper and co-director of the NRZMyk at the Leibniz Institute for Natural Product Research and Infection Biology—Hans Knöll Institute (Leibniz-HKI), adds, “The study highlights the importance of quickly recognizing fungal infections and possible resistance in order to prevent transmission to other patients or other facilities. If clinics do not have the facilities to carry out the MLST themselves, they can contact the NRZMyk if an outbreak is suspected.”



‘THE LAKES ARE ALIVE AGAIN’: THESE FROGS ARE BACK FROM NEAR EXTINCTION

Elizabeth Weise

<https://www.usatoday.com/>, Nov. 16, 2024

The jewel-like lakes of the High Sierra in Yosemite National Park are awe-inspiring sights. But for more than a hundred years they’ve also been biologically disrupted, stocked each year with non-native fish, which in turn destroyed the population of Sierra Nevada yellow-legged frogs that once covered their shores and filled their depths.



A Sierra Nevada yellow-legged frog.

Roland Knapp,
UC Santa Barbara

With that loss, the entire ecosystem shifted. The frogs had once been an important part of the summer diet not only of bears, coyotes, and snakes, but also of multiple bird species, including the Clark’s nutcracker and the gray-crowned rosy finch.

Then the few frogs that survived were almost wiped out by the arrival of the dreaded amphibian chytrid fungus, which killed them off in the few fish-free lakes that remained.

“It was a double whammy that almost wiped out the species,” said Roland Knapp, a research biologist at the University of California, Santa Barbara, who has been studying them since 1995.

Then something remarkable happened.

For the past 30 years, Knapp and a tireless group of biologists have been scouring the few fish-free lakes left for remnant populations of the once iconic frog. Not only did they find a few, but over decades of observation they realized that in rare cases, the frogs were evolving resistance to the chytrid fungus.

After years of research and voluminous requests to every federal and state entity involved, they reintroduced these fungus-resistant frogs to 12 lakes and watched the populations rejuvenate.

“The lakes are alive again, completely transformed,” said Knapp.

The research included scientists from the University of Tennessee, Colorado University, and Yosemite National Park and was published this week in the journal *Nature Communications*.

“You literally can look down the shoreline and see 50 frogs on one side and 50 on the other and in the water you see 100 to 1,000 tadpoles. It’s a completely different lake,” he said.

The Fish Came, The Tadpoles Got Eaten

The story of the demise of the Sierra Nevada yellow-legged frog goes back to the days of the California gold rush, which began in 1848. Suddenly tens of thousands of miners, many from Europe, were hiking deep into the backcountry and mountains.

They found not only gold but glorious vistas, so beautiful that Yosemite National Park was founded in 1890 to preserve them.

They also discovered more than 1,500 alpine lakes in the high Sierra that were crystal clear and bursting with life—but not with fish.

“There were all these people showing up looking for something to eat, many of them from Europe which had alpine lakes where they’d been stocking them with fish for 400 years,” said Knapp.

To fill the lakes, stocks of rainbow trout, golden trout, brown, brook, and cutthroat trout, along with Atlantic salmon and grayling, were brought in. For decades they restocked simply by carrying buckets of live fish to the shore and tossing them in.

“It had a huge effect. We have lots of reports of people who were in the high country and watched these changes take place. This frog that was the most abundant amphibian around. Within a few years of fish stocking, it’s gone,” said Knapp.

The yellow-legged frogs remained abundant in only about 20 percent of the most remote, unstocked lakes. But even that changed after World War II.

“All these pilots are coming back with very, very highly developed targeting abilities,” Knapp said. They were eager to put their skills to work using planes to drop fish into the lakes. “Once aerial fish stocking was in play, there was no lake that was too remote to stock.”

Only the tiniest sliver of lakes remained fish free and frog full.

The National Parks ended fish stocking in the 1990s out of concern for native species, but it turned out yearly restocking had never been necessary. The fish populations in the lakes continued to thrive.

Then Came the Fungus

In 1992 Knapp set about to see if the frog population could be saved by removing nonnative fish. He got permission to use gill nets to clear fish from a small number of lakes and was hopeful of a comeback. “For the most part, removing the fish provided the opportunity for immediate recolonization by the frogs.”

Other entities, including the California Department of Fish and Wildlife, the National Parks Service, and the U.S. Forest Service, began doing their own fish eradication programs and all began seeing the frogs come back.

Then disaster struck.

In the early 2000s research showed that the amphibian chytrid fungus—a global scourge—had arrived in the Sierra Nevada and began wiping out many of the last of the remnant frog populations.

First detected in Australia and Central America in the 1990s, the fungus caused mass mortality and population declines of frogs and other amphibians around the world.

“Those were really dark days in terms of trying to recover the species. It felt like for about 10 years we were just describing the extinction,” Knapp said.

The Sierra Nevada yellow-legged frog was added to the endangered species list in 2014.

But then the scientists saw a ray of hope.

Frog populations crashed in lake after lake in the high Sierra as the deadly fungus moved across the landscape. But then they began to see some of the populations slowly increase.

“It sure looked like they had evolved some degree of resistance,” Knapp said.

This only happened in fish-free lakes, because only those had enough frogs and enough genetic variation to evolve resistance.

So in 2006 Knapp and other researchers set about to see if the frog population could be saved in fish-free lakes. After long and intense study and preparation, they began to reintroduce the fungus-resistant frogs into the fish-free lakes. “They’re actually transported in Ziploc containers that you’d buy in the supermarket. Our only modification was to drill holes so they get oxygen.”

It worked.

Today, Knapp can sit at the edge of numerous high country lakes and see them transformed. Early explorers described lakes whose shores teemed with yellow-legged frogs sunning themselves at the edges. As they walked up “there would be a shower of frogs jumping back into the water,” said Knapp.

That frog shower, which he’d only ever read about, is now something he’s seen himself.

MAN INJECTS “MAGIC MUSHROOM” TEA

Nicoletta Lanese

<https://www.livescience.com/>, Nov. 20, 2024

The patient: A 30-year-old man in Phoenix, Arizona.

The symptoms: The man’s skin turned yellow and he became lethargic and nauseated. He also developed diarrhea and started vomiting blood before being brought to the emergency room.

What happened next: Doctors found that several of the man’s organs had begun to fail, and his blood tested positive for *Psilocybe cubensis*, a fungus containing the psychoactive compound psilocybin.

The diagnosis: Prior to developing symptoms, the man had boiled “magic mushrooms” into a tea, which he then filtered through cotton and ultimately *injected* into his body. The patient was diagnosed with a fungal infection of the blood, as well as a bacterial infection. These infections led to multisystem organ failure and acute respiratory syndrome, in which fluid builds up in the air sacs of the lungs.

The treatment: The patient received antibiotics and antifungal drugs. He was also placed on a ventilator, which helped him breathe while in the hospital. After being discharged, he continued taking antibiotics and antifungal drugs as part of a long-term therapy.

We need to thank the following volunteers for this hugely successful event. During this weekend, I had several people come up to me and declare their appreciation for this event. Specific comments were: “This was the best environmental event [I have] ever been to.” and “This event was an absolute home run.”

Organizers

All Great events begin with the organizers who put in the work planning, coordinating, interfacing with attendees and the destination facility staff, addressing all the membership questions and special needs, researching the mushrooming locations, ensuring that all facility resources are going to work and staffing the event. This effort had to be started several months in advance to ensure success and to anticipate and address any potential problems that arose. Join me in thanking the following organizers of the Ben Woo Foray:

Ben Woo (deceased) – for being one of the founders of PSMS and providing subsequent members with an organization that emphasizes, studies, and promotes mycological education.

James Nowak – for leading the overall effort, identifying, coordinating with required staffing, and making the trips down to Cispus to ensure we had hunting grounds identified. James, thank you for taking this on and watching over all phases of this event. Also, thank you for the candy treats and apples and pears from your orchard.

Marian Maxwell – for fielding most of the attendees many questions prior to the event and for signing them up and ensuring their concerns were addressed. Thank you for traveling down to Cispus in advance to help ensure the presentation/class areas had the necessary resources to carry on those events and for organizing participant check-in. Thank you also for putting together the presentation on Ben Woo, one of the original founders of PSMS.

Pacita Roberts – for helping to set up the registration tool and weighing in on what should be included in this event.

Scott Maxwell – for advanced coordination and checkout of the audio-video equipment and purchasing necessary AV adapters to ensure that things worked for the presenters. Also, for being a utility player in the overall on-site setup.

Another component of a successful foray is volunteers to make presentations, teach classes, lead safe mushroom hunting outings, and provide social events that engage people and offer an

opportunity to meet fellow PSMS members. Please join me in thanking the following volunteers:

Mushroom Hunting Guides

Joe Zapotosky, Wren Hudgins, Matthew Koons, Shannon Adams, Derek Hevel, Danny Miller, James Nowak. Thank you for keeping us safe and bringing us to the mushrooms!

Presenters

Marian Maxwell (Ben Woo Introduction and Introduction to Mushroom Hunting in the Pacific Northwest)

Danny Miller (DNA, Big Surprises and The Secret History of Mushrooms)

Langdon Cook (Never Go Home Skunked, Mushrooms and other Wild Edibles)

All of these presentations were packed with valuable information about identification, foraging, interrelationships of fungi, and mouth watering dishes including a variety of wild edibles. Outstanding!

Classes / Workshops

Marion Richards, Reba Tam – (Mushroom and Lichen Dyeing Workshop)

Wren Hudgins – (Forest Navigation Workshop)

Shannon Adams, Olivia Filialuna – (Microscopy Workshop)

Kathryne Bennett, Patrick Hagen, Molly Watts, Alex Watts, James Nowak – (Cooking Workshop)

Milton Tam, Andy Iwata, Ken Markaryan, Sego Jackson – (Mushroom Cultivation Workshop)

Meals and Social Event

Thank you, Cispus Staff, for outstanding service and excellent food over the entire weekend. You guys did a great job! Kathryne, Patrick, Molly, Alex, Derek, James—thank you for the great effort and excellent food and drink. Your efforts made the social eEvent a very special experience.

Identification

Lastly, to learn about the “latest” in identification of mushrooms, we needed people who have studied and are willing to share their knowledge. A big thank you to

Danny Miller, Kendra Dedinsky, Marian Maxwell, Olivia Filialuna, Sandra Ruffner, Wren Hudgins, Mathew Koons, Shannon Adams, Joe Zapotosky.

