

# SPORE PRINTS

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## PSMS FIELD TRIPS AND SAFETY Wren Hudgins

Famous NW mountaineer Ed Viesturs has said of mountaineering that it's optional to get to the top, but mandatory to come down safely. Likewise we could say of mushrooming that it's optional to find mushrooms, but mandatory to come home safely. In the wake of the still mysterious and quite sad Hildegard Hendrickson tragedy and periodic near tragedies reported every season in NW newspapers, PSMS has been working to boost field trip safety.

Let's review the main purposes of the field trips. Contrary to what many think, the main purpose isn't to bring home buckets of chanterelles or morels. Of course we hope participants will find good edibles to take home, but there are important variables not under our control. The field trip sites are reserved up to a year in advance, whereas the exact timing of mushroom fruiting depends on moisture and temperature, neither of which can be scheduled. So, among the critical variables, we can control only habitat. Consequently, the main purpose of the field trips becomes education. What we know we can deliver is education about the characteristics of the main edibles in the field trip area, details on correct habitat, strategies for improving your odds when hunting, and perhaps tips on preserving and cooking wild mushrooms. Although not the main purpose, there are significant other benefits available at field trips, not the least of which are socializing and excellent food.

Preparation starts at home when you choose how to dress. Remember that rain is a strong possibility. Even if it's not raining on the morning of the trip, it may well have rained in the past few days and the woods will likely be wet. Knowing this, you may want to bring sturdy rain gear and/or a complete change of clothes and a towel in the car. You probably won't be walking on trails, but rather "bushwhacking," so when I say "sturdy" rain gear, I'm referring to the fact that bushwhacking can easily rip holes in lightweight gear such as single use ponchos. I tend to have sets of what I call "field clothes" and I'll use these clothes for working in the yard, mushrooming, or any task where extra stains and new holes don't matter much. Toughness is an important variable here as bushwhacking is so hard on clothes. Remember that synthetic fabrics and wool carry some insulating value when wet, whereas cotton

(jeans) does not. You don't know the terrain before you show up, so choose sturdy footwear too. I usually have one set of shoes for comfortable driving and socializing but then a set of boots, often waterproof, for the actual hunting. It's often chilly starting out and I warm up after hunting in the woods for a while, so I carry a pack into which I can shed layers. I'm kind of a first aid geek, so I need a pack anyway to carry my fairly beefy first aid kit.

When you arrive at the field trip site, please sign in. There is always a clipboard sign-in sheet and it helps us know who we have out in the woods. We have recruited some experienced PSMS members to serve as field trip guides and plan to have two such guides available at each field trip to take out groups of beginners. These guides may not know every mushroom you find in the woods, but they will know enough to educate you on your quarry, its preferred habitat, and its look alike impostors. Guides will track their group members through a sign-in/sign-out system. The all group sign-in sheet contains the names of everyone at the site, whereas the trip guides will sign in and out only the members in their particular small groups.

PSMS includes a first aid kit in the gear that travels to every field trip. Luckily we have not used this kit in years. (I'll be updating it this Fall.) The most likely injuries are cuts and scrapes, and the kit offers sufficient supplies to address this sort of low level injury. Several of the guides, as well as Field Trip Chair Brian Luther, have more extensive kits if necessary.

However, the majority of the responsibility for safety lies with you, the individual member. We can't mandate it, but we can recommend (and do) that you carry all of the following, in addition to your collecting gear:

- a very loud whistle (sometimes called a survival whistle, much louder than an average whistle)
- a GPS (and extra batteries)
- a two-way radio (tuned to channel 13-1)
- some bright clothing, especially in hunting season
- a map and compass
- some device that tells time
- a cell phone.

The whistle signals are

One 2-second blast = Where are you? (This can be initiated by anyone and demands a one-blast response.)

Two blasts of 2 seconds each = Come to me. (This signal is mainly used by the group leader.)

Three 2-second blasts = Emergency (This can be used by anyone.)

Moreover, the signals are not limited to whistles but could be made by any loud source, such as a car horn or a portable air horn.

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# Spore Prints

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## MEMBERSHIP MEETING

Tuesday, September 9, 2014, at 7:30 pm at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle

This month Daniel Winkler will talk on “Amazing Amazon Mushrooms—Field Guide Debut.” In concert with the publication of his and Larry Evans’ *Amazon Mushroom Field Guide*, Daniel will share his best photos and entertaining stories from his annual travels in the Upper Amazon Basin along the eastern Andean slopes of Ecuador and Bolivia. As one of the most biodiverse areas in the western hemisphere, the Amazon contains an extremely diverse group of fungal organisms from bright-pink oyster mushrooms to giant polypores, from macabre insect-parasitizing Cordyceps and strange Xylarias to dainty colorful Marasmius and Collybias. Furthermore Daniel will share spectacular wildlife, bizarre insects, and exotic flowers.



Daniel Winkler

Daniel grew up collecting and eating wild mushrooms in the Alps and has been foraging for 18 years in the PNW, where he has been an active member of PSMS since 1996. Daniel trained as a geographer and ecologist and works as a researcher and NGO consultant on environmental issues of the Tibetan Plateau, specializing on Tibet’s diverse mushroom industry, publishing widely on the subject, especially on the Caterpillar fungus, *Ophiocordyceps sinensis*. He is also the author of *A Field Guide to Edible Mushrooms of the Pacific Northwest*, *A Field Guide to Edible Mushrooms of California* (Harbour Publishing 2011 & 2012), and with Larry Evans “*Field Guide to Tropical Amazon Mushrooms*” (Mushrooming Publishing 2014). Since 2006, through his travel agency MushRoaming, Daniel is organizing eco-tours to Tibet, the Amazon, and beyond.

## CALENDAR

- Sept. 9 Membership Meeting, 7:30 pm, CUH
- Sept. 15 Board Meeting, 7:30 pm, North Seattle Community College Green Room
- Sept. 23 *Spore Prints* deadline
- Sept. 27 Field Trip (see website)
- Sept. 29 Start of PSMS Monday public ID clinics, CUH atrium area
- Oct. 3-5 Field Trip (see website)
- Oct. 9-12 NAMA Foray, Camp Arnold near Eatonville, WA
- Oct. 25 PSMS Annual Wild Mushroom Exhibit (PSMS only), 11 am – 7 pm, The Mountaineers, Magnuson Park
- Oct. 26 PSMS Annual Wild Mushroom Exhibit (public) 10 am – 6 pm, The Mountaineers, Magnuson Park

## SPRING ID CLINICS START THIS MONTH

Brian S. Luther

The Hildegard Hendrickson ID Clinics will begin on Monday, September 29, at the Center for Urban Horticulture (CUH) in the Miller Library atrium area. CUH is located at 3501 NE 41st St., south of University Village on the east campus of the Univ. of Wash. The hours will be 4:00 to 7:00 pm. As always members and the public are invited to bring in mushroom collections for identification, and as usual a staff of mushroom experts will be on hand.

## BOARD NEWS

Denise Banaszewski

The board met at the North Seattle Community College Green Room, which will be our meeting location through at least December because it costs half of what it would cost to continue to meet at CUH. If you plan to attend a board meeting, remember to come to the new location. We received the annual CUH solicitation for donations, and will give \$500 to CUH, to be used for the Student Youth Garden Works if possible, and used at the director’s discretion if not. Preparation for the NAMA Foray continues; nearly 300 people will attend, including presenters. Work on the Annual PSMS Wild Mushroom Show also continues. We are planning on selling tickets online in advance for Sunday, the day the public is invited to attend. Remember that Saturday will be for PSMS members and will not be open to the general public. We received five Ben Woo scholarship requests, and voted to award one mycological student \$298 for her airfare to attend the Summer American Phytopathological Society Conference, where she is presenting a poster. We did not grant the rest of the applications because they did not meet our criteria for scholarships.

## Field Trips and Safety, cont. from page 1

In addition to carrying a GPS, radio and/or map and compass, you must know how to use them. Sometimes I run into people who carry these devices and mean to learn to use them one day, perhaps counting on osmosis. If you are planning on going off alone, consider bringing an EPRB (Emergency Personal Rescue

Beacon) and/or a satellite phone. Overkill? Maybe or maybe not, depending on how far out you go and for how long. Another item which may be overkill for many is a saw, which I leave in my vehicle. A few years ago I was mushroaming on forest service roads in the Swauk Pass area and I found my exit blocked by a small tree that had just blown down across the road since I had entered the area. Some creative use of fulcrums got me out of that one, but I have carried a saw ever since. Brian also brings one.

The foregoing alerting and navigation devices will help you stay in contact with your group and find your way back to your starting point. However, there is other gear that is recommended. Our premier outdoor-oriented group in the PNW, the Mountaineers, recommends that anyone going off in the woods or mountains carry “the 10 essentials.” The original list was published in the 1930s, but the updated one now includes:

- navigation tools (covered previously)
- sun protection (sunglasses and sunscreen)
- insulation (extra clothes)
- illumination (headlamp/flashlight)
- first aid supplies
- fire (waterproof matches, lighter, candles)
- repair kit and tools
- nutrition (extra food)
- hydration (water)
- emergency shelter.

One PSMS member and friend of mine volunteers for a search and rescue team, and he says S&R teams generally consider mushroamers to be ill prepared. Apparently most of us don’t carry the essentials. So if you are going to carry all the recommended gear, you’ll be carrying at least a small daypack. If you show up for a field trip without a pack, expect to hear some discussion from us on safety procedures. It may seem like a lot of work to assemble all the items recommended, but you may be able to do it only once and then just take that same pack every time you go mushroaming (or hiking) whether it’s with PSMS or not.

Think you won’t need help finding your way out of the woods? You may not, but why take a chance you don’t have to take? Most veteran mushroamers will have stories about their own near misses. My sense of direction in the wilderness is generally excellent, but after a couple of hours looking at the ground and walking in circles, it’s surprisingly easy to get turned around. More than once I have had to rely on my devices (compass, GPS) instead of my innate sense of direction. The lesson here is that if you have a conflict between your sense of direction and your devices (assuming you know how to use them), trust the devices. Another trap is telling yourself you are only going to check out that particular section of woods for a few minutes and therefore don’t need to take anything with you. I did exactly this on one of our Spring field trips and left my gear in the car. Along with another PSMS member, I got turned around and had to backtrack to find the trail; the rest of the group had to wait an extra 15 minutes for us. As it turned out, it was no big deal, but it could have been.

Most of the newspaper accounts of lost mushroamers tell stories of solo hunters, some having to spend an unexpected night or two in the woods. The lesson here is that personal safety is better in groups, group judgment is better than solo judgment, and duplication of devices is better than one device. If events create a survival situation, the extra strength, stamina, judgment, and equipment found in a group become critical.

Ours is a volunteer group. We have no mandates regarding safety. Field trip guides can try to keep track of members in their groups

but simply can’t be responsible for members wandering, purposefully or not, away from the group. Likewise we can suggest signaling devices and safety gear, but it’s up to you to bring those items. If you don’t plan to stay with a group, then it’s best not to leave with one and take a space that might go to a member who wants to go and is willing to stay with the group. Finally, don’t abdicate your responsibility for safety to group leaders or anyone else. It’s your job to take care of yourself and anyone else you bring with you (such as children). If we all do our jobs well, then we can relax, learn more, and perhaps even fill our baskets.

## MUSHROAMING TOURS

Daniel Winkler

PSMS mushroom expert Daniel Winkler is guiding MushRoaming Tours this year in Tibet, the Amazon, and beyond.

Come join fellow MushRoamers and enjoy a once in a lifetime experience in some of the most stunning landscapes on the planet. Tibet is not only endowed with a unique ancient spiritual culture but also has a vibrant mushroom tradition and vast mushroom markets. Immerse yourself in the vibrant vitality of the neo-tropical rainforest of the Amazon, the world’s most diverse ecosystem, host to a myriad of life forms including an array of exotic fungi. How about indulging in Oregon’s delicious truffle-laced cuisine or enjoying the Old World’s charm of the Tyrolean Alps and all its choice edible mushrooms?

For details visit [www.MushRoaming.com](http://www.MushRoaming.com) or contact me at [info@mushroaming.com](mailto:info@mushroaming.com).

- Wine & Dine & Truffling Time in Oregon, Jan. 21–25
- Bolivian Amazon w/ Larry Evans, Jan. 30 to Feb. 12
- Columbia: Andes to Pacific Coast, Apr. 10–23
- Cordyceps & Morel Expedition Tibet, May 23 to June 5
- New: Tyrolean Alps, July 20 to Aug. 5



D. Winkler

## THANK YOU TO THE HOSTS OF THE LAST THREE FIELD TRIPS

Brian S. Luther

Because of the summer break in the *Spore Prints* newsletter, and because it ends up being “old” news by fall, the last three spring field trips didn’t get reported on. Thus I want to make a special point of thanking JoAnn Ireland, Jamie Ardena, and Andrew and Julia Hofheimer for the fantastic job of hosting they did. A big thank you also to Hosting Committee Chair Jon Hall for recruiting the hosts, helping to coordinate the distribution of the field trip supplies, and ensuring that supplies are restocked.

For everyone who’s gone to PSMS field trips and enjoyed the wonderful hot coffee and goodies first thing in the morning, remember it’s only volunteers that make this happen. Hosting at field trips has been an important PSMS tradition since the 1960s. Please consider stepping forward and helping host by contacting Jon Hall ([jonhsuel@hotmail.com](mailto:jonhsuel@hotmail.com)). An organization like ours can only operate efficiently with consistent member contributions.

# FUNGUS-ILLUSTRATED STAMPS FROM SWEDEN

Brian S. Luther

Sweden has a small selection of stamps and other genuine postal items illustrating fungi. Gerlinger (1991) also lists Swedish stamps relating to Carl von Linnaeus, but none of them actually show any fungi, so I don't include them here. All catalog numbers are from the Scott Postage Stamp Catalogues. M = mushrooms or fungi as the main illustration; MID = mushrooms or fungi in the design of the illustration, background, or border; bkl = booklet; imperf. = without perforations; FDC = first day cover.

<u>Scott Catalog #</u>	<u>Issued</u>	<u>Type</u>	<u>Value</u>	<u>Species or Illustration</u>
841a bkl cover	11/17/69	M	N/A	Stylized mushroom
1259	10/7/78	M	1.15 kr	<i>Russula decolorans</i>
1260	"	"	"	<i>Lycoperdon perlatum</i>
1261	"	"	"	<i>Macrolepiota procera</i>
1262	"	"	"	<i>Cantharellus cibarius</i>
1263	"	"	"	<i>Boletus edulis</i>
1264	"	"	"	<i>Ramaria botrytis</i>
1264a bkl cover	"	"	N/A	Fries & <i>Hydnum coralloides</i>
2186	8/23/96	"	3.85 kr	<i>Boletus edulis</i>
2187	"	"	5 kr	<i>Russula integra</i>
2188	"	"	5 kr	<i>Cantharellus cibarius</i>
2189	"	"	5 kr	<i>Craterellus cornucopioides</i>
2190	"	"	5 kr	<i>Coprinus comatus</i>
2190a bkl cover	"	"	N/A	Stylized chanterelles
2491a & c	8/19/2004	"	5.5 kr	The Forest Larder —mushrooms and berries
2491a–d bkl cover	"	"	N/A	Two stylized boletes
2630b	1/28/2010	MID	12 kr	Three forest children with mushroom hats

## Comments

Only the booklet cover 841a shows a fungus—a stylized mushroom with an owl sitting on top, along with a moose, a bear, a sunflower, and a ladybug. The stamps within the booklet do not illustrate any fungi.



Scott 841a booklet cover

Booklet cover 1264a shows Elias Magnus Fries along with *Hericium (Hydnum) coralloides*. Fries (pronounced “freeze”) is considered the father of mushroom taxonomy. He devised the spore print color system (Friesian system) along with hymenophore configuration for mushroom taxonomy. Fries was Professor of Botany at Uppsala University, Sweden. All of his observations were either macroscopic or as viewed under a hand lens; he did not use a microscope. He wrote *Systema Mycologicum* in 1821–32 (3 vols.) and other important early works. The ICBN (International Code of Botanical Nomenclature) used these publications as the starting point for fungal names (along with Christiania Hendrik Persoon’s *Synopsis Methodica Fungorum*, 1801, for rusts, smuts, and Gasteromycetes). Then they decided to use Linnaeus’ *Species Plantarum* (1753) as the starting point instead. These changes were implemented in 1982 with the Sydney Code. The booklet panes\* for 1259–61 are imperf. on the top, and those for 1262–64 are imperf. on the bottom. All stamps have gum.



Scott 1264a booklet cover



Scott 1259–64

Booklet cover 2190a has 16 stylized chanterelles on it. Of the five stamps in the set, 2186 is not attached to the other four comprising the booklet pane; rather it is loose; it is imperf. on two sides (left & right). Stamps 2187 & 2188 are imperf. on the top only, and 2189 & 2190 are imperf. on the bottom only. All the stamps in this set have gum. The back of the FDC for this set briefly describes the five species shown. It explains that the Swedish common name for *Boletus edulis* is Karljohan, because according to Fries it was a favorite of King Karl XIV of Sweden. It also calls *Coprinus comatus* “The ink cap” (what we call the Shaggy Mane). The Inky Cap to us is an entirely different species (*Coprinopsis atramentarius*), but that’s how ambiguous common names can be and the reason why we must rely on scientific names.



Scott 2190a booklet cover



FDC for Scott 2186–90

Scott 2186–90

The 2004 Forest Larder set (2491a–d) is super cute and colorful, with the four stamps showing both edible wild mushrooms and/or edible wild berries found in Sweden. All stamps are serpentine die cut on three sides only and are self-stick. None of the mushrooms (or fruits) are labeled, but I've provided scientific names for them in the table. Two of the four stamps show mushrooms: stamp 2491a shows only *Chlorophyllum procera*, but 2491c shows *Bolletus edulis*, a *Russula sp.* and *Cantharellus cibarius* (Chanterelle) growing, along with a basket full of mixed *B. edulis*, *Russula sp.*, *Lactarius deliciosus*, and a Chanterelle. Stamps 2491b & 2491d show woodland scenes with berries, but no mushrooms. The value is not shown on these stamps, but all are 5.5 kr. The Scott Catalogue lists the booklet pane of four stamps by itself as 2491e.



Scott 2491a–2491d, bkl cover



In my study of Swedish stamps I was pleased to recently discover that Scott 2630b

Scott 2491a & 2491b

Scott 2491c & 2491d

has an illustration from the classic book *Children of the Forest* by renowned Swedish author and

illustrator Elsa Beskow (1874–1953). The book was first published in 1910, and her forest children wear stylized *Amanita muscaria* hats. This stamp is perforated on the left and right, but is imperfect top and bottom and has gum.

FDCs were also produced for many of these sets, with very attractive mushroom cachets (envelope illustrations). I've shown one example here for Scott 2186–90.

For a discussion of fungus-illustrated postage from the neighboring country of Finland, please refer to Luther (2014).

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\*A pane is a panel of stamps in a set still all connected. Depending on how issued, a booklet pane may have the same stamps in the set together or just a selection of one or more of the stamps in the set.

## MUSHROOM POISONINGS

### Colorado Teenager Felled by Poisonous Mushrooms

CBS, Denver, August 13, 2014

WOODLAND PARK, CO. (CBS4) - With Colorado's recent wet weather mushrooms are popping up all over the state. Now a concerned father is issuing a warning after his daughter ate a wild red mushroom. Minutes later she appeared catatonic. "She started having some seizure type activity," Kevin Stone said.

Alexandra Stone was rushed to Memorial Hospital. Her dad says her blood pressure and body temperature both dropped to dangerous levels. It took a day and a half to stabilize her. Last Friday, Alexandra was hooked to a ventilator, and doctors were monitoring her brain activity.

Mushroom expert Brian Barzee believes the teenager ate an *Amanita muscaria*, which are common in the area of Pike National Forest where the Stone family was.



### Mushrooms down 9 in the Philippines Elric Ayop

<http://www.abs-cbnnews.com>, August 12, 2014

MANILA - Nine members of the Manolo family of Davao City were brought to the hospital after suffering from nausea and vomiting at around 11 pm on Monday. They suspect that the stir-fried mushroom they had for dinner caused the food poisoning.

The victims got the mushrooms from a nearby riverbank.

The victims are currently under observation at the Southern Philippines Medical Center.

Health officials have also gathered samples of the mushroom to determine where it was indeed the cause of the food poisoning.

### India Mushroom Poisonings

<http://www.thehindu.com/news/>, August 4, 2014

Twenty-two persons of Purunabandha village near Rushikulya rookery in Ganjam district of Odisha fell ill after consuming poisonous mushrooms. All of the victims, including women and children, developed severe food poisoning symptoms on Saturday night and were admitted to hospitals at Chatrapur and Rambha. All of them were out of danger and had been discharged by Sunday afternoon. The affected persons consumed mushrooms that had sprouted on sand near the rookery coast.

On July 3, nine persons in two villages on the outskirts of Bherampur fell seriously ill after consuming poisonous mushrooms. In the same month, three persons of Aska area of Ganjam district suffered severe food poisoning after consuming wild mushrooms. On Saturday, five persons of the Kalimela police station area became seriously ill.

### Albert Harry Crosetti Nov. 1, 1922 – July 18, 2014

We regret to report that long-time Seattle resident and founding PSMS member Al Crosetti passed away July 18, 2014, at his home in Mill Creek, Washington. Our condolences to his family.

## POLYPORUS SQUAMOSUS FOUND IN THE ENTIAT RIVER VALLEY

Brian S. Luther

On the second-to-last PSMS field trip this spring (May 30–June 1) Jeff Stallman brought in a surprising discovery—*Polyporus squamosus*. Common in the central and eastern regions of North America, this mushroom has been found only rarely in the PNW. I don't remember ever having seen it previously in Washington State, although I have seen it in the Southern Appalachians. Common names include Dryad's Saddle and Pheasant's Back.



Brian S. Luther

*Polyporus squamosus*.

*Polyporus squamosus* is an annual polypore that grows singly or in groups. It is usually a foot or so across, although both McIlvaine (1900) and Clements (1910) report that it can get up to, or exceed, 7 ft in width and weigh as much as 40 pounds. It has only been reported on hardwood trees or stumps. Shope (1931) says that in eastern Colorado this species especially likes Cottonwoods (*Populus spp.*). Although the area where the collection was found this spring is predominantly conifer forest, it is close to the Entiat River and there are Cottonwoods mixed in. Jeff Stallman didn't know what kind of wood it was growing on, but most likely the substrate was Black Cottonwood (*Populus trichocarpa*) based on the location and on the piece of wood attached to the base where the stem was removed. Lindsey & Gilbertson (1978) say the species is found on Aspen (*Populus tremuloides*) trees and stumps and that it causes a heart rot of living trees. So, in the west at least, it appears to have an affinity for trees in the genus *Populus*. It decomposes the lignin components in wood, causing a white rot (refer to Luther, 2007, for an explanation of rot types). It's unusual for a polypore in that it fruits almost exclusively in the spring, only occasionally in the fall. In the central and eastern US it's often found by people searching for morels in the spring because it's so conspicuous during that season.

All macroscopic and microscopic features of this collection are consistent with *Polyporus squamosus*. The scaly cap, large elongated pores, and dark stem are characteristic. It has very long basidia (microscopic cells that bear the spores), large spores, and a dimitic hyphal system (two types of hyphae). However, it has



Brian S. Luther

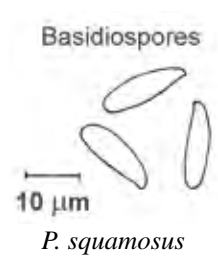
*Polyporus squamosus*, close-up showing large pores.



Brian S. Luther

*Polyporus squamosus* cap showing large dark scales.

a very peculiar combination of generative hyphae (thin-walled, clamped hyphal cells) along with binding hyphae (very thick-walled, often contorted or branched hyphae lacking clamps). Most dimitic fungi have generative and skeletal hyphae, so this species is a little odd. The genus *Laetiporus* (Luther, 2008) also has this unusual combination of just generative and binding hyphae, lacking skeletal hyphae.



The distribution map by Gilbertson & Ryvardeen (1987, p. 664) shows *Polyporus squamosus* in Washington, Idaho, Montana, Colorado, Arizona, BC, and Alberta in western North America. Tylutki (1987) also reports it from Idaho. In searching the UW Herbarium (WTU) website, I found no collections of this species from Washington State, so it's rarely collected here.

Jeff knows exactly where he found it, so we can search for more in the future. I received the specimen a week after it was found, so the photos included here are of a slightly desiccated (less than perfect) collection. However, they still show the characteristics well.

A similar and related species is *Polyporus tuberaster* (Canadian Tuckahoe), which I've seen several times over the years here in Washington State. It has different scales on the pileus, smaller basidia and spores, and grows on the ground from a large subterranean sclerotium, rather than on wood, like *P. squamosus*.

McIlvaine (1900) says *Polyporus squamosus* is tough but edible, with a "pleasant flavor" when thinly sliced and "stewed slowly" for a half hour. Oddly, he compares its consistency to that of "the muscle of an oyster" cooked the same way.

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## OUR ANNUAL FALL WILD MUSHROOM SHOW WILL BE DIFFERENT THIS YEAR!

We are implementing some significant changes to our annual fall Wild Mushroom Exhibit this year!

Our show will again be at the Mountaineers facility off Sand Point Way in Magnuson Park, but will be two weeks later than usual this year, on October 25 and 26.

### **Why things will be different?**

First, this year is our 50th anniversary, and we want to celebrate! Second, last year's show had some surges in crowd size that weren't anticipated and were not controlled. Members, volunteers, and guests found it difficult to move around and see the exhibits. So...

### **How they will be different**

**Saturday, October 25, will be for members and their invited guests only.** Admission will be *free* to members. Guests, who must accompany you (or you can meet them at the door), will be charged the usual admission fee. Please invite your friends to attend! The show hours will be from 11 am to 7 pm. You can arrive early to help set up the exhibit and assemble a display tray.

*We will have a potluck lunch from 12 noon to 2 pm, and to wind down the evening, we will serve wine and cheese from 5 pm to closing.*

We want this to be a relaxed, fun day, an opportunity to enjoy the exhibits and savor the accomplishments of PSMS for half a century. Can you remember where *you* were in 1964?

**Sunday, October 26, will be open to the general public.** Show hours will be from 10 am to 6 pm. *Everyone*, including PSMS members, who choose to attend this day will pay regular admission. Entry times will be staggered, so that we can control the crowds and ensure that everyone has a quality experience and a chance to enjoy the displays that so many volunteers have worked so hard to assemble.

Ticket sales for both days will be handled online at our website.

**We need more volunteers on both days** to make the show run smoothly. As always, show volunteers are admitted free on the days they volunteer. We will be reminding everyone of all of this again in the October *Spore Prints*. The poster for this year's show will also clearly communicate these changes.



## PRESIDENT'S MESSAGE

Marian Maxwell

September is here, and with it comes—mushrooms.

Planning continued over the summer for the PSMS/NAMA joint foray, the PSMS annual mushroom show, the fall field trips, the ID clinics, and the ID classes. This fall is going to be a *very* busy and exciting one! We would welcome help in hosting field trips, guiding field trips, and of course, as always, helping at the mushroom show! This year's show will only be open to the public on Sunday Oct. 26. Everyone who attends on Sunday (excluding members who volunteer) will have to pay admission. Saturday, October 25, will be reserved for PSMS members only and invited

guests. Members can attend Saturday for free; guests will have to pay admission. Saturday will be a more relaxed atmosphere, and will include events to celebrate our 50th anniversary. We will have more information on this at the general meetings, in announcements, and in the October *Spore Prints*.

We will have sign-up sheets for show volunteers on the tables at the general meetings in September and October as well as online under "Events Registration" on our webpage.

Brian Luther has worked hard and has a great lineup for the Fall field trips. He will also be announcing the date he and Danny Miller are starting the Monday night ID clinics. We also want to wish Brian and Pam a Happy Anniversary as they celebrate their 40th in September! Wren Hudgins has been working on some safety issues and articles, as well as garnering field trip guides for the upcoming field trips. Danny Miller is working on an ID class schedule and revising the content of the classes with Steve Trudell. Evelyn Tay and Teddy Basladynski have been keeping up on the changes on the website. Agnes Sieger had a well deserved July and August off (no newsletter) but is gearing up (with Dick) for the coming month's *Spore Prints* publications. Ann Polin has been adding and contacting new members and sending out information to them. John Goldman has kept us on an even keel with the financial aspects and paying bills over the summer as well as ordering books for the upcoming mushroom show. He continually reviews our bills and tries to find ways to save money. Our board has been in touch over the summer and met in August to continue PSMS business.

Pacita Roberts, Teddy Basladynski, John Goldman, Andrea Rose, Reba and Milton Tam, James Nowak, Kim Traverse, Lynn Phillips, Brenda Fong, Cathy and Don Lennebacker, Kern Hendricks, Joanne Young, Doug U'Ren, Chong Merz, Jennifer Slack, Denise Banaszewski, Daniel Winkler, and I have been working on various aspects of the PSMS/NAMA Foray (of which there are many). Chris Herrera and other members from the South Sound club have been helping with field trip locations and scouting. Andrew Macmillan from the Kitsap Peninsula Mycological Society has helped with field trip safety and other issues. There have been many planning meetings, excursions to locations for forays, trips to Camp Arnold, computer hours, and so many calls and contacts made to make all of the arrangements! I can't begin to quantify the number of man-hours that went into this event alone in addition to the preparation for the regular PSMS events for fall itself. PSMS has amazing people working on behalf of our organization. Thank you all for everything you have done and are doing!

I am really excited about the events planned for this fall! Please keep up the positive thoughts for some rain, since we need those summer rains now for a great season this fall.

Remember to welcome our newer members at the field trips and general meetings!

### **The Mushrooms**

*The red mushrooms  
With white spots  
Appeared under the pine tree.  
I was raised in the city  
What do I know about mushrooms?  
So in case they were poisonous  
I got a shovel and tossed them into the trash  
Hoping the fairies could forgive me  
For taking away their shade.*

—Connie Webb

## THE SECRET TO STOPPING TOXIC FUNGI: MOOSE DROOL

Todd Woody

<http://www.takepart.com/>, August 8, 2014

Here's another reason not to hunt moose: Scientists have discovered their saliva contains an enzyme that neutralizes a deadly fungus that grows on red fescue grass.

The fungus produces a toxin that would kill other animals, which quickly learn to avoid the grass. It's a nifty self-defense mechanism for red fescue, but it's no match for moose.

Or reindeer, for that matter. Their slobber also produces an enzyme that neutralizes the toxicity of red fescue, according to the study, which was published in the journal *Biology Letter*.

To get technical about it, moose and reindeer slobber "inhibits a grass-endophyte mutualism," wrote the researchers, who are from the University of Cambridge in Cambridge, England, and York University in Toronto.

That means that over the eons red fescue and the fungus, called *Epichloë festucae*, have developed a I'll-scratch-your-back-if-you-scratch-mine relationship. Red fescue provides a home for the fungus, which in return bumps off hungry herbivores that would devour its host.



*Epichloë sp. on red fescue.*

Except it doesn't work on moose and reindeer, which have evolved their own defenses.

It's another example of the exceedingly complex web of life, of which much remains to be discovered.

"Large mammals play vital roles in maintaining everything from the vegetation of given ecosystems to the nutrients and carbon stocks that they hold," Andrew Tanentzap, a plant scientist at the University of Cambridge and a coauthor of the study, said in an email. "Any changes to their numbers will have cascading effects on not just biodiversity but also ecosystem function."

In this case, the scientists were curious about why moose could chow down on red fescue without getting sick, let alone dying. So they collected saliva samples from adult male moose and reindeer (after anesthetizing them, of course) at two Canadian zoos.

The researchers used distilled water as a control against the drool, applying both liquids to red fescue. The moose and reindeer saliva, they found, slowed the growth of the fungus and thus its toxicity.

In other words, moose spit is something like a palate cleanser that gets rid of that nasty toxic taste of fungus before the main course of red fescue.

They may be big, but moose aren't dumb.



Lucy Nicholson/Reuters

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