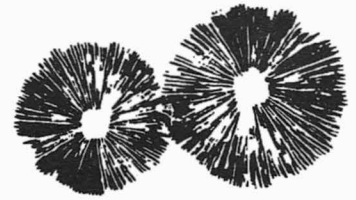


SPORE PRINTS



BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY
Number 370 March 2001

PRESIDENT'S MESSAGE

Joanne Young

It already feels like spring, and my eyes have begun making involuntary sweeps of city landscapes. Several weathered walnuts sitting upright in garden bark stopped me in my tracks today. It's not long now to morel season!

New Field Trip Chair: Lots of things are shaping up for spring. The first news is that we have a new field trip chair. Three cheers for Steve Curtice! Steve has already been busy lining up field trip sites, which are listed inside the newsletter. Hosts are needed for our spring field trips. Hosting is a great way to get to know other members and to feel appreciated!

Banquet: The Survivor's Banquet on March 24 should be lots of fun. This year we'll have a potluck of favorite ethnic foods. There's still room to sign up. Bernice Velategui is taking reservations at (206)232-0845.

Show News is Good News: The first key steps toward an Annual Mushroom Exhibit have been made. We have a date, a location, and two excellent chairs! Exhibit dates are October 13 and 14, 2001, at Sand Point/Magnussen Park (in the Brig).

Our talented exhibit co-chairs are Karin Mendel and Coleman Leuthy. A relatively new member, Karin has already proved to be an extremely energetic, capable, and enthusiastic board member. She organized the very successful Quinault Foray last fall, has served as book chair for the annual exhibit, hosted numerous field trips, and is now our candidate for vice president! Coleman Leuthy first joined PSMS in 1976. In 25 years he has served PSMS in countless ways. From 1986-1988 he served as PSMS President. Each year he organizes the PSMS/Mountaineers Foray at Meany Lodge. He is one of our important identifiers, takes care of mushroom receiving at the annual show, and has been a featured speaker at membership meetings. All that doesn't begin to detail his abilities and contributions. Both Karin and Coleman have great organizational skills and are a pleasure to work with. Thank you, Karin and Coleman!

Board Meeting For All of You Wonderful Trustees to Be: PSMS holds its board meetings at 7:30 PM in the board room down the hall from the PSMS office at CUH. Meetings are on the Monday after the regular monthly membership meeting.

In March, the board meeting usually follows the Survivor's Banquet and is the first meeting for the newly elected Trustees. This year it will be different. Because the banquet comes so late in the month, the March board meeting will precede it on Monday, March 19. Voting members will be the current trustees. The first official meeting for newly elected board members will be on April 16.

All candidates nominated for the board are invited and encouraged to come to the March 19 meeting even though you will not be able to vote. (Any PSMS members are welcome at all board meetings, by the way.)



NEW ANTIVIRAL DRUGS FROM MUSHROOMS Paul Stamets (from Fungi Perfecti Web site)

A new class of antiviral drugs has been recently discovered in mushrooms. Dr. Frank Piraino, University of Wisconsin Medical School, has found a new antiviral, RC-183, which shows activity inhibiting *in vitro* the herpes simplex I and II viruses, as well as the varicella zoster virus, the influenza A virus, and the respiratory syncytial virus (Piraino & Brandt, 1999). The mushroom yielding this novel antiviral is *Rozites caperata*, the Gypsy Mushroom, a mycorrhizal species associated with pines and Douglas firs. A resident of old growth forests of Washington and Oregon, this mushroom has thus far resisted cultivation attempts owing to its complex interdependence with the host tree. In a more recent article, Brandt & Piraino (2000) have identified a new class of antiviral drugs from mushrooms.

Antivirals from other mushrooms have been identified previously: lentinan from Shiitake, *Lentinula edodes* (Sarkar et al., 1993); PSP from Turkey Tail, *Trametes versicolor*; and ganaderiol-F, ganoderic acid-β, lucidumol from Reishi, *Ganoderma lucidum*. A number of unique antivirals from mushrooms have shown efficacy in inhibiting the replication of the human immunodeficiency virus (Suzuki et al., 1989; Nanba, 1992; Kim et al., 1994; Collins & Ng, 1997; Ghoneum, 1998; Hattori, 1997). Other antivirals, not yet characterized but having shown activity from hot water extracts from Chaga, are *Inonotus obliquus* (Kahlos et al., 1997) and Zhu Ling, *Polyporus umbellatus* (Yan, 1988).

The predominant mushrooms showing promise for their antiviral activities are polypores—the so-called woody conks, thought to be the ancestors of most, if not all, gilled mushrooms. (Interestingly, we know of no poisonous polypores, whereas there are more than a hundred poisonous gilled mushrooms, of which only a few are deadly.) Most all these antivirals are water soluble and relatively heat-stable, and most of the mushrooms mentioned and/or their mycelia can be cultured to commercially significant levels. The causal compounds are present both in the mycelium and in the fruiting bodies. The current literature points to mushrooms, particularly those in the Polyporaceae, as a rich frontier of new medicines. Many of these mushroom species are long-term residents of old growth forests, playing an essential role in nutrient recycling by decomposing aged trees. In a time when new antiviral medicines are critically needed, mushrooms stand out as an untapped resource and deserve intensive studies.

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PUGETSOUND MYCOLOGICAL SOCIETY

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CALENDAR

- March 19 Board meeting 7:30 PM, CUH
- March 20 *Spore Prints* deadline (early)
Note change in deadline from Friday to Tuesday.
- March 24 Survivors' Banquet and Annual Meeting,
6:30 PM, CUH
- March 31 MacDonald County Park field trip

RIDE WANTED FROM EAST OF THE CASCADES

I live in Ellensburg but am interested in joining your group. I was wondering if there is anyone else who attends your meetings who resides east of the Cascades. I am hoping I can share a ride to your meetings.

I was also wondering if anyone knows of any mushroom groups here in Ellensburg (or possibly Wenatchee or Yakima). Any help you could provide would be greatly appreciated. Thank you.

Ken Boettger

email: alpine@ellensburg.com

Phone: (509) 933-3063

TACOMA AREA GET-TOGETHER

Ed Levesque

As a member of PSMS who lives in Tacoma, I am holding a no-host dinner for anyone in PSMS who wants to come to Tacoma and talk and eat/visit about mushrooms. The date is Thursday, March 29, at 7:00 PM in the banquet room at the Yankee Grill and Roaster, 72nd and I-5, Tacoma (6812 Tacoma Mall Blvd). I am not interested in starting a new club. I just want to get together to talk and visit. For more information, call (253) 588-6229 (days).

MEMBERSHIP MEETING

This month is the **Annual Meeting and Survivors' Banquet**, held Saturday, March 24, at the Center for Urban Horticulture.

Festivities begin at 6:30 PM. It will be an international potluck, so bring your favorite ethnic dish to share. All this for only \$5 ea. To attend, contact Bernice Velategui, (206) 232-0845. Bon apétit!

SPRING FIELD TRIPS

Steve Curtice

The spring field trip season is upon us again. New members are encouraged to acquire a copy of the *Washington Atlas & Gazetteer* with its large folio of detailed topographic maps and other useful information. Good maps are a joy when you are trying to find your way around, and this collection is especially so with its detailed coverage of logging roads and trails. As you acquire your own "secret spots" for gathering delectable edibles, this will help you find your way back in succeeding seasons—especially useful if your memory is as bad as mine.

New this season, *PSMS* will be providing only coffee and doughnuts at the field trips, no paper cups, plates, or cutlery. **Please remember to bring your own dinnerware.**

March 31

MacDonald Park
(30 miles east of Seattle)

This is a close-in, half-day trip to start off the season. MacDonald Park is on the Tolt River about ½ mile south of the town of Carnation in King County. Enter the park on N.E. 40th Street from State Highway 203. Watch for PSMS signs on the corner and use the day-use parking lot. We will meet at the main shelter across the suspension bridge for a general introduction to mushroom hunting. Then we will break into small groups and go out to gather specimens. Identifiers should be available around 10:30 AM. There should be *Verpa bohemica* under the cottonwoods in the surrounding area. We'll meet rain or shine. You may want to bring lunch.

April 28

St. Edward Park

May 5

Bullfrog Flats

May 12

Swauk Creek

May 19

Twenty-Nine Pines

May 26

unconfirmed

June 2-3

Bridge Creek

FIELD TRIP TIPS

Agnes Sieger

For those who joined PSMS at the Annual Exhibit in October, I thought it might be nice to review some basic mushrooming tips regarding the upcoming Spring field trips.



Apparel: The Pacific Northwest is wet. Wear warm clothing, preferably in layers, and waterproof shoes or boots and bring your rain gear. Pacific Northwest vegetation is usually thick, and the sky is frequently overcast. Bring a compass and whistle and a map of the area—and remember to use them.

Mushrooming gear: You will need a wide-bottomed container for your mushrooms.

This can be a basket or bucket. Do not use plastic sacks; they tend

to condense moisture and turn mushrooms into slime. You will need a sturdy knife suitable for cutting and prying and perhaps a soft brush to clean up the edibles; some people even bring a small garden trowel for digging. To protect individual specimens for identification, take some wax paper sandwich bags or aluminum foil.

Collecting: If you know you have a good edible, cut off the stem cleanly and brush off as much soil and debris as possible. Store like species in a rigid container where they won't get crushed or pick up more dirt. Try to keep the mushrooms cool and dry, and process them as soon as possible.

Field Trip Format: Most PSMS field trips are planned for Saturdays, since this is the most convenient time for many people. It is possible to come early on Friday and stay over to Sunday. The campgrounds, unless otherwise specified, have camping facilities. Almost all field trips have hosts, who set up by 9:00 AM on Saturday with hot coffee and snacks. The hosts greet and sign in members, relay general tips on what is up and where to find it, and introduce newcomers to more experienced members. They also have a map of the area. After signing in, participants gather their gear and head for their favorite hunting grounds. In the afternoon, they come back to the campsite to identify their finds, compare notes, and prepare for the potluck.



Potluck: The potluck starts at 4:00 PM (sometimes later when days are longer). You need to bring your own eating utensils and beverage and a dish to contribute to the table. This can be an appetizer, salad, main dish, or dessert. The food is usually delicious, and it is a great time to swap tales, collect recipes, and share mushroom information with friends old and new.

SURVIVOR XXXVII: THE BANQUET Patrice Benson

PSMS will host its 37th Annual Survivor's Banquet at the Center for Urban Horticulture, 3501 NE 41st Street, on Saturday, March 24, 2001. Festivities begin at 6:30 PM. It will be an international potluck, so bring your favorite ethnic dish to share. Label your container and serving utensil with your name.

If your offering contains mushrooms, please prepare a tag to place with the dish to notify folks as to genus and species. Please be certain of your identification and thoroughly cook your mushrooms if serving to others. Because of limited cooking facilities, there will be no cooking or preparation at the banquet. Please bring your dish ready to serve.

Plates, cutlery, and glasses will be provided as well as coffee and a nonalcoholic beverage. Dress in ethnic costume if possible. There will be informal entertainment provided by Podhale, a Polish folk singing group. The Golden Mushroom will be awarded, and new officers and board members will be introduced. There will be fun door prizes. Don't miss this event!

To attend, send \$5 per person to

Bernice Velategui
2929 76th Ave. SE
Mercer Island, WA 98040.

If your last name begins with A-H, bring an entrée; if I-M bring a salad, cut fruit, bread, or an appetizer; if N-Z bring a dessert.

Bring a mushroom object for our mushroom chachka display and don't forget your favorite wine. Bring your recipe to deposit in the recipe box. Phone Patrice Benson at (206) 722-0691 with any other questions.

THE EARLY MOREL

Agnes Sieger

The first field trips this spring are dedicated to *Verpa (Ptychoverpa) bohemica*, the first edible mushrooms to lure the mycophagist after the winter doldrums. Often called the early morel because of its timing and superficial resemblance to the true morels, *Verpa bohemica* fruits from late February through April, depending on the season. In the Pacific Northwest, it is associated with cottonwoods, often fruiting right around the drip line of mature trees "when the cottonwood leaves are the size of a mouse's ear." Once you learn to recognize the cottonwood, a tall, dark, poplar-like tree with wrinkled bark that grows in damp river bottoms throughout western Washington, you can spot your hunting ground from afar. Finding your quarry amid the debris of the previous fall, however, isn't that easy.



Verpa bohemica is a medium-sized (3-8 in. tall), tannish mushroom with a wrinkled, bell-shaped cap which is attached only at the top, forming a skirt over the stem. The stem is long, at first whitish to cream in color and becoming tan with age, and filled with cottony fibers.

In contrast, true morels have pitted, not wrinkled, caps that are attached to the stems at the bottom (or in some cases part way up); their stems, while hollow, are empty.

Unlike other verpas, and most large ascomycetes, *Verpa bohemica* has only two spores per ascus instead of eight. For that reason, modern taxonomists have split it into its own genus, *Ptychoverpa*. What each ascus lacks in numbers, however, it makes up for in size; the spores are huge.



Although considered a good edible by many, this mushroom causes gastrointestinal upsets and loss of muscular coordination in some people and should be approached with caution. Many field guides recommend parboiling it and throwing away the water and eating only small amounts at a time. The effects may be cumulative, so don't pig out on it several days in a row, even if it is the only edible mushroom out at the time.

SPRING ID CLASSES

Colin Meyer

Beginning and Intermediate Mushroom Identification courses will be offered this spring. Both classes will consist of five two-hour sessions, held on weeknight evenings from 7:00 until 9:00 at the Center for Urban Horticulture. Dates for the Beginning classes are 5/1, 5/9, 5/15, 5/22, and 5/29. Intermediate dates are 4/30, 5/7, 5/16, 5/23, and 5/28.

The Beginning course will cover common edible and poisonous mushrooms found in the spring, cooking and collecting, and toxins. The Intermediate course will focus on morphological features of fungi and identifying spring mushrooms with dichotomous keys. Both courses will cover mushroom toxins and symptoms.

Mushrooms Demystified, by David Arora, is the required text for both classes. *Identifying Mushrooms to Genus, Book I*, by David Largent, is recommended for Intermediate students. Cost for either class is \$35, and there is still room for more registrants in either one. Contact Colin Meyer (206) 722-6687 or cmeyer@helvella.org to reserve a space.

The Mycological Microscopy workshop will be held on March 31 through April 1. This class is already filled up.

Antiviral Mushrooms, cont. from page 1

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MUSHROOM SOUP

Mary Beth Tyrholm

- 1/2 lb fresh mushrooms
- 2 Tbs butter
- 2 tsp lemon juice
- 1 TBs flour
- 1/2 tsp. salt
- 4 C canned chicken stock*
- 2 egg yolks
- 1 tsp sherry



Brush off mushrooms. Trim ends of stems, slice thin. Saut , stirring often, for 2 minutes. Sprinkle with lemon juice and toss lightly to mix. Blend in flour and salt. Stir in chicken stock (or water and bouillon cubes). Heat, stirring constantly, until mixture boils 1 minute. Beat egg yolks and sherry in a small bowl; blend in about a half cup of the soup mixture, then stir back into remaining mixture in saucepan. Heat, stirring constantly, 1 minute.

*You can substitute 2 chicken bouillon cubes and 4 cups water for chicken stock. I also use my dehydrated mushrooms and replace whatever amount of stock with the liquid from the mushrooms.

INTRODUCING McGEE MS (Mushroom Sniffer)

Thanks to the talent and generosity of PSMS member Gloria Barber, who graciously volunteered to chronicle the adventures (real and imaginary) of her basset hound McGee, the Mushroom Sniffer.



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