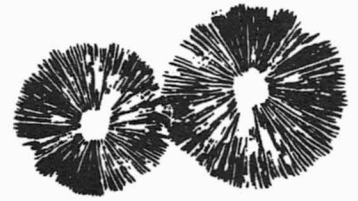


SPORE PRINTS



BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY
Number 362 May 2000

PRESIDENT'S MESSAGE

Joanne Young

PSMS would like to thank the Nature Conservancy for lending us the digital projector used to show Dr. Bryce Kendrick's CD-ROM at April's monthly meeting. To see more of Dr. Kendrick's photos, go to "The Fifth Kingdom" on-line at <http://www.pacificcoast.net/~mycolog/fifthtoc.html>.

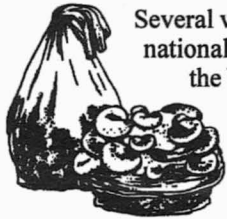


We have a new vice-president/program chair. He is someone well known to you and vastly overqualified. Find out who at the next meeting.

It is almost certain that the Annual Exhibit will be held this year at Sand Point, in the Brig! Dates are October 14 and 15. The great news is that Ron Post and Ben Woo will co-chair. Ben Woo is a founding member of PSMS and its first president. An architect, now retired, Ben has chaired at least ten Annual Exhibits for PSMS. We are fortunate to have Ben and Ron back again, especially with the interesting challenges of a new location!

MUSHROOM GROWERS TRAVEL OPPORTUNITY

Joanne Young



Several weeks ago PSMS was contacted by an international private voluntary organization funded by the U.S. Agency for International Development. ACDI/VOCA, or Agricultural Cooperative Development International/Volunteers Overseas Cooperative Assistance Program, is looking for volunteers for several mushroom cultivation projects in Russia.

Many of VOCA's projects are volunteer, where they recruit qualified personnel who donate their time and travel abroad for 2-3 weeks at a time to assist in a number of technical capacities. The assignments are completely voluntary. VOCA does cover all expenses, including airfare, hotel, drivers, translators, etc., plus a daily per diem for meals and incidental expenses.

Currently, their Russia program is experiencing a large number of requests for mushroom specialists in a number of technical areas, including production, compost preparation, tunnel construction, etc.

If you have technical expertise to share and this sounds intriguing, please feel free to contact Kirill Reznik at the e-mail address or phone number below.

Kirill Reznik, Project Coordinator, ACDI/VOCA
50 F Street, NW, Suite 1075
Washington, DC 20001
(202) 383-4987, (202) 783-7204-fax
KReznik@acdivoca.org

Details of some of their current projects will soon be posted on the PSMS members e-mail news list that Colin Meyer is setting up.

WANTED: WEBSITE GRAPHIC DESIGNER

Do you have an eye for style? D.V. Corey and Colin Meyer have been organizing and updating the information on the www.psms.org website for awhile and would like a hand coming up with a cool design. If you feel you qualify, please e-mail Colin at cmeyer@helvella.org or call (206) 722-6687.

CULTIVATION GROUP MEETING

Colin Meyer

Cultivating mushrooms is a fun activity and popular among PSMS members. In the recent past, the cultivation group has been very informal, and the general membership has not always been informed of the meetings. In addition, our resident cultivator has moved away from the area and can no longer perform regular workshops.



It is time that PSMS had a formal Cultivation Group, with pre-announced meetings and activities, that all members are welcome to attend. For anyone interested in helping out with this group, please attend the organizational meeting at the CUH Board Room, May 23 from 7:30-8:30 PM. Cultivation expertise is not necessary.



For more information, please contact me at cmeyer@helvella.org or (206) 722-6687. [Ed. Note: Please check with Colin or the PSMS Web site to confirm the time and place.]

HAMBURGER STROGANOFF WITH MORELS

Hope's Mushroom Cookbook, by Hope Miller

- 1 garlic clove, minced
- $\frac{2}{3}$ cup chopped onions
- 2 Tbl margarine
- 1 lb extra lean ground beef
- 8 oz. sour cream
- 1 can cream of mushroom soup
- Morels (up to 1 cup fresh
or $\frac{1}{4}$ cup dried and reconstituted)
- Butter or margarine



Sauté garlic and onion in margarine until tender. Add ground beef and cook until brown. Add sour cream and mushroom soup. Simmer until hot. Add morels to mixture; simmer a few minutes more. Serve over noodles.



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PUGET SOUND MYCOLOGICAL SOCIETY

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(206) 522-6031 <http://www.psms.org>

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EDITOR:	Agnes A. Sieger, 15555 14 th Ave. N.E., Shoreline, WA 98155

Annual dues \$20; full-time students \$10

CALENDAR

May 6	Bullfrog Flats field trip
May 9	Membership meeting, 7:30 PM, CUH
May 12-14	PSMS/Key Council/USFS mushroom survey
May 13-14	Swauk Creek field trip
May 15	Board meeting, 7:30 PM, CUH Board Room
May 20-21	Twenty-Nine Pines field trip
May 23	Cultivation meeting, 7:30 PM, CUH Board Room
May 26	<i>Spore Prints</i> deadline
May 27-28	American River Lodge field trip
June 3	Bridge Creek field trip

BOARD NEWS

Agnes Sieger

Jim Berlstein presented information on the Breitenbush 2000 Conference scheduled for October 26-29. He hopes the conference will be a good mix of science and general interest. Every effort is being made to keep the cost below \$250.

Education Chair Colin Meyer is planning classes for summer and fall. We still need hosts for the American River and Bridge Creek field trips. Colin and Corey have updated the Web site and deleted obsolete information. They need a volunteer to redesign the graphics. A rough draft of the PSMS membership roster was passed around for perusal.

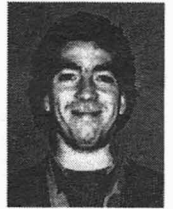
Ron Post has agreed to co-chair the Annual Exhibit with Ben Woo. The Exhibit will be held at Sand Point on October 14-15. Lynn Phillips, Patrice Benson, and Colin Meyer will prepare a preliminary PSMS budget. Sites were discussed for a fall foray. The summer picnic will be Sunday, July 23, at Shelter 5 in Seward Park. Mary Lynch has offered to chair a Conservation Committee.

MEMBERSHIP MEETING

Tuesday, May 9, at 7:30 PM at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle

A farewell program will be given by two valued PSMS members, Jim Berlstein and Dr. Denis Benjamin, who unfortunately will soon be moving on to other climes.

Jim Berlstein will move to Berkshire County in western Massachusetts this summer to begin teaching, having recently received his teaching certificate after studying at Seattle Pacific University. Jim will show his beautiful mushroom photos, one of which you will recognize as the model for the 1999 exhibit poster. He showed his photos at the exhibit slide shows when few of us were free to attend. He has been our program stand-in for two years, ready to fill in on short notice if one of our scheduled speakers was unable to appear.



Denis Benjamin is leaving for Ft. Worth, Texas, to become Director of Laboratories at Cook Children's Hospital, after holding the same position at Seattle's Children's Hospital and Medical Center for 26 years. He wrote *Mushrooms: Poisons and Panaceas*, a treasure filled with mycological history, science, and anecdotes. Denis is a popular Northwest storyteller and gives cooking demonstrations at the Herbfarm. Two great treats. Be sure not to miss them!

Would members whose last names begin with the letters P-T please bring a plate of refreshments for the social hour?

FUNGI AND BIOLOGICAL CONTROL OF ANIMAL PARASITES

Anders Tunlid et al., via *Fungifama*,
So. Vancouver Island. Myco. Soc., April 2000

Nematode worms are a large problem in animal production all over the world. Often the worms live in the animal's gut and cause disorders such as diarrhea, with resulting weight loss and consequent economic loss. At present nematode infections are controlled largely with the use of anthelmintics such as ivermectin, which are given to animals as a curative treatment. However, the frequent use of anthelmintics causes the parasites to develop resistance to the drugs, and there is increasing public concern about chemical residues in animal products and in the environment.

One approach to developing alternative control strategies is biological control using natural enemies of nematodes. One group of such enemies is nematophagous fungi. During the past few years, Professor Peter Nansen and colleagues at the Center for Experimental Parasitology in Copenhagen have demonstrated that such fungi can be used to control parasitic nematodes found in the gastrointestinal tracts of cattle and horses. Many of these nematodes have a life cycle with stages living inside the host and other stages living outside the host in the dung and surrounding grass.

Control using nematode-trapping fungi, particularly *Duddingtonia flagrans*, is achieved by feeding the animals chlamydo spores of the fungus. Some of the spores survive passage through the digestive system and are deposited in the animals' feces. The fungus germinates and forms traps that can infect and



kill free-living stages of parasitic nematodes.

UPCOMING FIELD TRIPS

Mike Lovelady

Most PSMS field trips are planned for Saturdays, since this is the most convenient time for many people. Although some field trips are listed as two days, Sunday is optional, and there will be no identifiers or hosts.

May 6 **Bullfrog Flats**
(elev. 2000 ft, 80 miles east of Seattle)

This site is at the northwest corner where I-90 crosses the Cle Elum River. Take I-5 over Snoqualmie Pass to exit #80. Go left at the stop for about 500 ft, take the first right, and follow the PSMS signs.

May 13-14 **Swauk Creek Forest Camp**
(elev. 2500 ft, 110 miles east of Seattle)

Take I-5 over Snoqualmie Pass to exit #85. Follow the signs to Wenatchee. Turn left onto Hwy. 970. After 7 miles stay left on US Hwy. 97 (north) and continue another 16 miles. The camp is on the right. Swauk Pass is 4 miles beyond the camp.

May 20-21 **Twenty-Nine Pines Forest Camp**
(elev. 2500 ft, 102 miles east of Seattle)

Take I-90 over Snoqualmie Pass to exit #85 east of Cle Elum. Follow the road toward Wenatchee for 2½ miles. Turn left on Hwy. 970 and go 4½ miles. Turn left onto Teanaway River Road. Continue 6 miles to the Bible Rock Children's Camp. Bear right on the Teanaway North Fork Road and continue to Twenty-Nine Pines on the left, just past Jack Creek Road. There is no shelter.

May 27-28 **American River Lodge**
(elev. 3100 ft, 130 miles southeast of Seattle)

From Enumclaw, southeast of Seattle, go east on Hwy. 410 over Chinook Pass; 17 miles past the summit, turn right onto Bumping Lake Road #174. Turn right after ¼ mile and right again to go uphill and through the gate. Continue for about ½ mile to the lodge. Plan on camping overnight in your tent or trailer (the road is steep). The lodge is primitive but is good shelter for the potluck or in case of bad weather. A donation for overnight use or day use will be appreciated. Because of raised rates, the lodge is reserved for Saturday night only.

June 3 **Bridge Creek Forest Camp**
(elevation 2400 ft, 150 miles east of Seattle)

Take Hwy. 2 over Stevens Pass and proceed 34 miles to Leavenworth. (You can also take I-90 over Snoqualmie Pass to exit #85, go over Swauk Pass to Hwy. 2, and proceed left for 6 miles to Leavenworth.) Take Icicle Creek Road on the north edge of town and go 6½ miles to Bridge Creek Forest Camp.



FIELD TRIP REPORTS

Camp Long, March 25 **Mike Lovelady**

It was a nice day for a field trip. The sun was out, birds were singing, and the feeling of spring was in the air. A group of twenty or so showed up. We drank coffee, ate donuts, and socialized for a while. Then we walked to an old cottonwood tree. I gave advice

on how to find, identify, and collect *Verpa bohemica*, with a warning about the possibility of gastrointestinal upset and/or loss of muscular coordination. The field trip was a success. We found a dozen or so *Verpas*. The kids had fun finding the slime gelatin globs of salamander eggs that are always plentiful in the Camp Long pond at this time of year. One by one we went our ways.



MacDonald State Park, April 2

Brian Luther

Fortunately we had good weather for this traditional half-day trip to the cottonwoods in Carnation. I gave an introduction to *Verpas*, including the usual cautions about edibility, and Patrice Benson demonstrated correct collecting methods. Maybe 20 or so people showed up, but only a few saw the sign-in sheet, so the actual number is unclear. Everybody seemed glad to be out for a brief time to bond with nature, and most everyone found at least a few *Verpas*, etc.

Special thanks to our guides ^{on Friday} day, including Patrice Benson, Mike Lovelady, and Steven Bell. We got a surprise visit from Dick Sieger, who had just gotten back from a month-long trip with Agnes to Europe. We didn't recognize him at first, because he was dressed like a downtown banker and looked relaxed and tanned. He recounted some of their favorite places and dining experiences. Perhaps we can get Dick and Agnes to put together a slide program of their European adventures some time?

Twenty-three species of fungi were collected and displayed, including 10 gilled mushrooms, 6 polypores, and 7 Ascomycetes. A couple of the beautiful Scarlet Cups (*Sarcoscypha coccinea*) were found, and the surprise of the day was an unusual spring fruiting of the Gilled Bolete (*Phylloporus rhodoxanthus*).

Special thanks to Mike Lovelady for bringing the coffee and to the other trip leaders for contributing goodies.



NEW FEDERAL FOREST PRODUCTS LAW Mycological Society of San Francisco message board

A last-minute rider regulating non-timber products on national forest land was attached to a federal budget bill, HR3194, that has already been signed into law. The basic idea is that every district in every national forest will be required to charge money for the collection of any non-timber forest product, and that the fees gathered must be sufficient to support the permit program within the individual district. Before you panic, however, note section (e)(1):

(e) WAIVER AUTHORITY

(1) PERSONAL USE - The Secretary of Agriculture shall establish a personal use harvest level for each forest botanical product, and the harvest of a forest botanical product below that level by a person for personal use shall not be subject to charges and fees under subsections (b) and (c).

(2) OTHER EXCEPTIONS - The Secretary may also waive the application of subsection (b) or (c) pursuant to such regulations as the Secretary may prescribe.

The full text of the rider can be found on the PSMS Web site (<http://www.psms.org>).

THE FOWM CHANTERELLE TASTE-OFF

David Pilz, October 23, 1999
via *Fungfama*, So. Vancouver Island Myco. Soc., April 2000

Introduction and Methods: At this year's Foray of Western (professional) Mycologists (FOWM), we had an opportunity to test chanterelle taste preferences. Prior to the FOWM our Oregon weather had been dimly dry for over three weeks. Nevertheless the FOWM, participants succeeded in finding three species of chanterelles: *C. formosus*, *C. subalbidus*, and what we are presuming was *C. cibarius* v. *roseocanus* from Engelmann spruce forests at higher elevations. The dryness of all specimens eliminated water content as a complicating factor in comparisons of taste.

All three collections were chopped into pieces of about 1 cm cubed or less and sautéed in copious quantities of olive oil with a pinch of salt. The cook did his best to standardize ingredients, heat, and cooking time. All three batches were cooked in iron skilletes and placed side by side on a dish. The three species of chanterelles were labeled with a circle, a square, and a triangle to avoid prejudicing tasters with ranks such as A, B, C or 1, 2, 3.

Tasters were then asked to rank the three entries according to preference. Ties were allowed and comments encouraged. Symbols were tallied by ranks and then the counts by rank were multiplied by the following preference weights: favorite preference = 3; second favorite preference = 2; least favorite preference = 1.

Results: And the winner was—*Cantharellus subalbidus* [the circle]: rank 1 = 11, rank 2 = 5, rank 3 = 6. Score: $(3 \times 11) + (2 \times 5) + (6 \times 1) = 49$. The close second was *Cantharellus cibarius* v. *roseocanus* [the square]: rank 1 = 8, rank 2 = 9, rank 3 = 5. Score: $(3 \times 8) + (2 \times 9) + (1 \times 5) = 47$. And our poor little loser was *Cantharellus formosus* [the triangle]: rank 1 = 3, rank 2 = 10, rank 3 = 9. Score: $(3 \times 3) + (2 \times 10) + (1 \times 9) = 38$.

Methodological critiques: The trial had no replication or blocking. Sample sizes were limited and disappeared quickly. Chunk size may have influenced how much of the olive oil was absorbed and how crispy the piece became (but samplers either choose pieces randomly or some intentionally controlled for uniform chunk size).

The value weights applied to the ranks constitute an arbitrary scale, The distance between ranks 1 & 2 may be greater than between 2 & 3. Future trials might better use a scale of 1–10 in addition to ranking .

The types and quantities of wine previously consumed may have affected the taste resolution and biases of samplers. Some samplers associated the symbols used to label the specimens with certain flavor qualities, hence negating the attempt to assign valueless labels for blind testing. "The circle implies a smooth rounded quality," one sampler described at length with many hand gestures. (Sorry, I didn't note what type of wine this individual was drinking.)

Interesting observations: Almost everyone commented that they were surprised that they really could distinguish differences in taste when sampled side by side. (The sequence of tasting was not standardized.)

Even though most liked *C. formosus* the least, some liked it the best, describing it as having a "nutty flavor" they preferred. An individual from Denmark and another from the Netherlands both commented that the "square" (*C. cibarius* v. *roseocanus*) tasted most similar to *C. cibarius* from Europe. All agreed the "experiment was a smashingly good idea," and enjoyed the comparisons.

Acknowledgments: My thanks to Larry Evans and Eric Danell for the taste test idea and to the many individuals who disagreed about chanterelle flavors for motivation to conduct the test.

A NOSE FOR FUNGI

Mycolog
Humboldt Bay Myco. Soc., Jan. 2000, via *Fungfama*,
South Vancouver Island Myco. Soc., March 2000

A two-year study by the Mayo Clinic of 210 sinusitis sufferers found that more than 90% of the cases were caused by an immune system response to a common fungus, *Aspergillus*. The researchers attributed the discovery to improved techniques for testing for fungus in mucus samples. *Aspergillus* is a microscopic Ascomycete closely related to *Penicillium*.

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