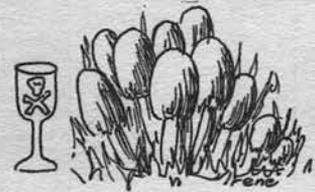


# SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY  
200 Second Avenue North, Seattle, Washington, 98109  
October 1975

Number 115



## FIELDTRIPS

Dave Schmitt

As your fieldtrip chairman I appeal to all members for some assistance for the remaining outings. WE NEED HOSTS. The first forays of this excellent mushroom season have had a good turnout and everybody, the newcomers as well as the experienced hunters have had field days. Let's keep these outings a success and maintain the format. But to do this, we need more members willing to volunteer to help. Please call Dave (255 - 5286) today.

### Oct. 11 & 12 Dalles Forest Camp, (approx. elev. 2200')

Go east on State Highway #410 to about 25 miles S.E. of Enumclaw. The camp is on your right.

### Oct. 24, 25 & 25 Cispus II Foray, (approx. elev. 1600')

Go south on I - 5 to State Route #12. Follow State Route #12 to Randle. The turnoff to Cispus (toward Mt. Adams) is well marked in Randle.

### Nov. 1 & 2 Oak Patch Camp (near Bremerton)

Go to Belfair, turn left to Tahuya, go past Belfair State Park, turn right on Elfendahl Pass Road, a little over two miles. Watch for the sign: "Tahuya River Valley" and take the gravel road straight ahead of this sign. Follow the gravel road about 3 miles, Oak Patch Camp is on your left.

### Nov. 2 Mushroom Awareness Walk, Seward Park, 10:00 am, at the upper parking lot

## HARMLESS OR HALLUCINOGENIC? : A BRIEF ACCOUNT OF PANAEOLUS FOENISECII

Brian S. Luther

Just about all mushroom hunters have probably, at some time or other, run across the Hay-Maker's Mushroom (Panaeolus foenisecii) growing scattered or gregarious in lawns or other grassy places. If you don't remember what this fungus looks like, refer to your favorite mushroom handbook for a picture and description.

The possibility of the presence of small amounts of psilocybin (an hallucinogenic compound) in Panaeolus foenisecii, and therefore the question of the edibility of this mushroom, has been conjecture for some time. There has been disagreement from author to author as to the gastronomic qualities of P. foenisecii (which in earlier works is known as Psilocybe foenisecii). Louis C.C. Krieger's The Mushroom Handbook (1936) lists this species as edible (p.432) and does not mention any possibility of it being unhealthy. V.O. Graham, in his Mushrooms of the Great Lakes Region (1944), is in agreement as to the edibility of this fungus (p.329). In The Gilled Mushrooms (Agaricaceae) of Michigan and the Great Lakes Region, by C.H. Kauffman (1918) the author states "It is edible" (p.283). William S. Thomas in his Field Book of Common Mushrooms (1928) states that although this species cannot be ranked along with "the best species" (p.245) that it is edible. In his Mushrooms in the Natural Habitats (1949), Dr. Alexander H. Smith is getting warm in that he says P.foenisecii is edible but does not recommend it (p.569). More recently G.W. Groves' work Edible and Poisonous Mushrooms of Canada (1962) makes it clear that P. foenisecii is "reported" as being edible but does not recom-

mend its use for culinary purposes (p.217). But, Groves does not recommend this mushroom (not because it could be potentially dangerous itself, but ) because it might too easily be confused with other species of Panaeolus more harmful than the above. At least he does discourage its use as food even though he doesn't have the story correct. Mushrooms of North America (1972) by O.K. Miller does, however, have the story mostly correct on page 117. As Miller notes, P.foenisecii is "poisonous" and can be considered hallucinogenic. Although O.K. Miller is the closest yet to the truth of the matter, he still is not right on. So, you see there are conflicting reports of edibility from a smattering of just a few of the common mushroom handbooks. These were just examples, so check in other handbooks and note the discrepancies.

The real story is that some forms of this species contain psilocybin (and possibly other hallucinogenic compounds) and other forms apparently don't. No one can, then, with any real certainty say that a particular specimen of P.foenisecii is either poisonous or edible unless immediate chemical analysis is performed.

A study done by three biochemists in 1969 has shown a general correlation of distribution and toxicity ("Additional Evidence Supporting the Occurrence of Psilocybin in Panaeolus foenisecii" by Robbers, Tyler and Olah, Lloydia, Vol.32, No.3, pp.399 - 400). Collections of this mushroom made at Lafayette, Indiana and Quebec, Canada, after analysis, both showed the presence of psilocybin. Specimens of this mushroom collected from Seattle showed no traces of Psilocybin. So, what we seem to have is a trend of increased potency from the western states to the eastern seaboard. There are, of course, many states in between that have not been sampled from as yet. You can see that the Haymaker's Mushroom may or may not be dangerous, depending upon where collected. There are many other variables which need to be looked into also, for example, the quantity of psilocybin might be greater or less depending upon the season and local conditions. With that, it can be said that the chances of being poisoned from this mushroom may be somewhat less out here in the west, but not necessarily. I conclude by giving the homily: Panaeolus foenisecii should never, under any circumstances, be used for food, regardless of what your favorite mushroom handbook may say to the contrary.

## CARPOOLING FOR FIELDTRIPS Monte Hendrickson

Persons wishing rides to fieldtrips should call Monte Hendrickson (523 - 2892) early in the week preceding a fieldtrip. We have not had to let anyone down yet!

## WELCOME TO THE FOLLOWING NEW MEMBERS

Robert & Hazel Boehm, 364 - 7769  
Arthur & Xava Buttkus, 246 - 8680  
William Byrd Forbes, 232 0452  
K. H. & Lillian Fuller, 722 - 9128  
Carl & Betty Hermanson, 723 - 5127  
Helen King, 324 - 1979  
Mary Alice Lee, 624 - 2641  
Jerry Schneider, 362 - 2645  
Walter & Jean Walkinshaw, 323 - 3079  
Carla Kincaid, VE 9 - 1408



## Spore Prints

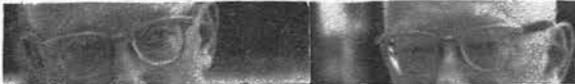
is published monthly except July and August by the  
PUGET SOUND MYCOLOGICAL SOCIETY  
c/o The Pacific Science Center, 200 - 2nd Ave. N.  
Seattle, Washington, 98109. Mail copy, art, or  
photos to Hildegard R. Hendrickson, Editor, %  
4029 E. Madison, Seattle, Wa., 98102.

OFFICERS Milton Grout, President (747-0497)  
W. Scott Chilton, Vice-Pres. (362-0804)  
John T. Mudge, Treasurer, (232-1962)  
Shirley Cox, Secretary (282-8103)

TRUSTEES Lester Baribo; Sharon Boehm; Sigrun  
Budnik; Cliff Carpenter; Jerry Cone;  
Monte Hendrickson; Hugo Kopta; Judy  
Roger; Buzz Walters; Patricia Winter;  
and Howard Melsen (immed. Past Pres.)

ALTERNATES Florence Mals; Helena Kirkwood;  
Kathleen Tracey

SCIENTIFIC ADVISOR Dr. Daniel E. Stuntz



### CALENDAR

- Oct. 11 & 12 Fieldtrip to the Dalles Forest Camp
- Oct. 11 & 12 Port Townsend Mushroom Show
- Oct. 13 Monday, Membership Meeting, 8:00 pm
- Oct. 18 & 19 The 12th Annual Exhibit
- Oct. 20 Monday, Fall Class, Eames Theater
- Oct. 20 Board Meeting
- Oct. 24, 25 & 26 Cispus II Foray
- Oct. 24 Deadline for Spore Print Material  
Send all articles, art work, photographs, to the  
editor, 4029 E. Madison, Seattle, Wa., 98102
- Oct. 27 Monday, Fall Class, Eames Theater
- Nov. 1 & 2 Fieldtrip to Oak Patch
- Nov. 2 Mushroom Awareness Walk, Seward Park
- Nov. 3 Monday, Fall Class, Eames Theater
- Nov. 8 & 9 possible Fieldtrip, details November Spore Prints
- Nov. 10 Monday, Membership Meeting, 8:00 pm

**REMINDER** for those members who have not been out yet. You are missing the best season in years.

## Membership Meeting

Monday, October 13, 1975, 8:00 pm, Eames Theater,  
The Pacific Science Center.

Program: Mr. Brian Luther will give a talk on wood rotting fungi which will be illustrated with the film "Wood Decay By Fungi". Brian is a member of PSMS and a graduate student in botany at the U.W. with a strong interest in mycology.

### BOARD NEWS

H.R.H.

During the September meeting the Board heard committee reports. The following topics were highlighted: Vice President Scott Chilton indicated that interesting programs are planned for the coming months: Russ Mohnney, Seattle writer and author of "Why Wild Edibles" will speak on collecting and eating higher plants in the Puget Sound area (Nov.); Photography Night will be held in December; and the excellent film "Growing Mushrooms in Japan" will be repeated in February.

By popular demand there will be mushroom books for sale at the October Membership Meeting. PSMS also plans to make available (at cost) the bound Educational Material compiled by the educational committee.

The educational committee reported that all plans for the Cispus II Foray are going well. Registrations for food and lodging are closed, but you can still come in your RV and register and pay the \$5 fee for the programs offered. There will be 2 microscopes available at Cispus, and everyone is encouraged to bring his/her own.

The preparations for the Annual Exhibit are in full gear, even though several committees could use additional help (a hint for those who have hesitated so far and not signed up.) Call Ed Cantelon (phone 242-6115) and he will have an assignment for you.

### ATTENTION: A MUSHROOM AWARENESS WALK

Brian Luther

On Sunday, November 2, 1975 Brian Luther will conduct a day-walk through the "mushroom trails of Seward Park". Come when you please, spend as much or as little time as you like. Any way you look at it, you'll gain enjoyment from seeing, and hopefully, learning, many of the different species of fungi which grow right in Seattle (if you don't already know some of them) along with getting to meet new people. If you're interested and have the free time, just come with a sack lunch and dress warmly, including boots.

Bring collecting gear (baskets, buckets, knives, etc.). This outing is directed toward those PSMS members who can't make it to more distant fieldtrips (note you can even get to Seward Park by bus. Take #7 Rainier to Rainier & Genesee and then transfer to #39 Seward Park).

Meeting time and place: so as to give people time to wake up (since it is a Sunday) the rendezvous will be at 10:00 AM on Sunday, Nov. 2nd at the upper parking lot in Seward Park which is directly up the hill from the bath-house.

The agenda: 10 - 12 noon or later nature walks, talks and mushroom collecting. Then we have our lunch and the specimens will be identified under the covered picnic shelters of the upper parking lot. **DON'T MISS IT!**

(Brian is a serious botanist. He has a B.S. in Botany from the U.W. and is doing graduate work in the department of Botany. One of his major interests and areas of study has been Mycology.)

Margaret Dilly is hunting mushrooms a long way from where she was born (Schenectady, N.Y.) but then she has lived here in the beautiful Puget Sound area for a long time. She attended Beacon Hill Elementary, and graduated from Franklin High School.

After raising three children and working for the G. E. Aircraft Divn., Margaret nowadays is devoting all of her time to being a housewife, grandmother, and to the study of fungi. Other interests besides mycology, include sewing, bible study, hiking and canoeing.

Members of PSMS since 1965, Margaret and Claude at first were pothunters only, but now they only pick a few of the tastiest for their table, and have gradually become interested in seeing what they can find that they never found before, as a matter of mycological interest. She obtained her mycological knowledge from material made available by PSMS and has taken Dr. Stuntz' summer class 6 years in a row.

By listing and describing the assignments Margaret has had for PSMS our members can follow some of the activities that our Society performs that are not always visible to the general membership. For three years she was Tray Arrangements Chairman for the Annual Exhibit, after holding the assistant position for one year. This year she and Dorothy Henderson are revising the labeling system and color coding for the Exhibit. As vice president in 1974 it was her job to select the programs for the monthly membership meetings. Presently, she is chairman of the morel committee, which for the past three years or so has been studying the morels of the Northwest. The thrust of the study involves the microscopic analysis of this genus. Margaret also works on the Agaricus Key, an attempt by PSMS and other societies in the Northwest to develop macroscopic keys for the genera found here. If all of our PSMS members were as active as Margaret we would have "cracked" more mysteries in our fungus world.

#### CISPUS II FORAY

Judy Roger

Even though it is too late to get food and lodging at Cispus, you still can participate in the educational activities if you have an RV. Register with Jenny Schmitt. Otherwise all preparations are being finalized at this time.

An added opportunity will be a microscopic workshop conducted by Judy Roger with the assistance of Jack Orth. There will be 2 microscopes available at Cispus, and everyone is encouraged to bring his/her own. See you at Cispus.

#### THANK YOU LYLE, & GUTE REISE

H.R.H.

All PSMS members and especially the officers and Board want to thank Lyle McKnight for all the work he has done as chairman of the 1975 Annual Exhibit. Just as the preparations were beginning to get into the final stages, his employer decided to send him and his wife Joy on a six months business trip to Johannesburg, South Africa (when you read this article he will be there already). We wish you a pleasant stay, envy you that you will have two summers in a row without a winter in between, and hope that upon your return you will report to us about the fungi on the other side of the equator.



#### ASPEN MUSHROOM CONFERENCE Scott Chilton

The second Aspen Mushroom Conference was attended by more than 100 mycologists, toxicologists, pathologists and mushroom hunters in Aspen, Colorado, August 11 -15. Chief Mycologist Alexander Smith identified 240 species. Many Russulas and Cortinari were not keyed to species. Cortinarius colinitis was one of the most frequently found mushrooms, and the large yellow-sheathed Armillaria luteovirens one of the most beautiful. Several boxes of Lactarius deliciosus were brought in. The poisonous species found were not very plentiful. In addition, to Inocybes, Clitocybes and Hebelomas, they included Amanita muscaria, A. pantherina (including a very pale variety with more or less saccate volva), two carpophores of one of the toxic Galerina spp. and one carpophore said to be near Conocybe filaris, a PNW mushroom recently shown to contain the deadly amanitin toxin.

A ten hour microscopy course was given by Linnea Gillman of the U.S. Forest Service. George Grimes, formerly president of the Colorado Mycological Society gave a ten hour beginners course. Ethnobotanist R. Gordon Wasson, discoverer of the Mexican hallucinogenic mushroom cult, gave two lectures on the role of mushrooms in religious experience in the down of history.

#### WANTED : MUSHROOM GROWERS

Scott Chilton

Have you experimented with growing your own mushrooms at home? Had any success? Do you know anyone who has and might be persuaded to show or tell his experience? If you do, please contact Scott Chilton (home: 362 - 0804; office: 543-1773). If I can find 2 - 3 people with positive experiences, I would like to schedule a PSMS program on home culturing of mushrooms at one of the last winter or early spring PSMS membership meetings.

#### MUSHROOM HUNTERS BEWARE

The general hunting season (deer, etc.) starts Oct. 11 and lasts about two weeks. Wear bright colors and make a lot of noise when hunting mushrooms in the woods.

#### ADDITIONAL HELP NEEDED FOR THE GENERAL EXHIBIT.

There will be additional sign-up sheets for assistance at the General Exhibit. If you have not volunteered, please do so at the October membership meeting, or sooner by calling the chairman, Ed Cantelon (242 - 6115) or his assistant, Dr. Winter, at 486 - 4264. We are very grateful that Ed took over this very responsible job after Lyle's transfer to South Africa, and we don't want to let him down at this late hour. Help to make this another outstanding exhibit.

#### PORT TOWNSEND MUSHROOM SHOW

John Parker

The 2nd annual Mushroom Show of the Jefferson County Mycological Society will be held on October 11 & 12, 1975 at Fort Worden State Park (located on the beautiful beach in Port Townsend). Saturday is gathering day (PSMS members and the Kitsap Mycological Society are cordially invited to join). At 5:30 pm there will be a potluck dinner in the indoor kitchen building at the park followed by musical entertainment. On Sunday from 10:00 AM to 5:00 pm the mushroom show will be open to the public.

At the park there are plenty of spaces for camping (note this is a different park than where we had our show last year) and clean rest rooms. The mushrooms are coming up in spectacular profusion and it promises to be a fine show. We hope many PSMS members can come up and have a good time.

## FIELDTRIP REPORT

Fay Melsen

Beautiful weather greeted our members as they arrived at the Masonic Park. Since we had had early rains everybody was full of anticipation, and rumors had been going around that the fungi are showing. Nobody was disappointed. Most had hoped to find Chanterelles, but they were not as profuse as last year. However, the pothunters found Boletus edulis, Lactarius deliciosus and Rozites caperata. Brian Luther expertly identified 130 different species. He was ably assisted by Howard Melsen and Charlie Volz. Unfortunately, a picture of the giant B. edulis found by Martin Hansen was not available at press time, but we are still hoping to present it to you later. We were very happy to see Bill Pollard again participating on a fieldtrip. As usual he took out the prettiest new hunter of the Society, to induct her into the art of mushrooming (watch out Pauline!).

About 120 persons (plus or minus 10) participated in the delicious and plentiful potluck. How can we watch our wastelands. Many thanks again to the Masons for making their beautiful park and shelter available to PSMS.

## TRI-CITIES FORAY SEPT. 20 - 21 Margaret Dilly

This fun outing was enhanced by great people and beautiful weather. It was held in the south-east corner of our state at the Wooten State Park on the Tucannon River on the edge of the Blue Mountains.

Between 60 and 70 people participated with PSMS well represented. The head mycologist was our own Dr. Stuntz, ably assisted by our Tricholoma expert Charlie Volz, with Ben Woo in there keeping the Boletus complex and Russulas straight. The foray was well planned and we shall adopt a few ideas for our upcoming Cispus foray.

Groups were organized and went out gathering specimens. In spite of the dry weather, some 120 plus species were brought back. On returning each individual was supplied with tags and containers and requested to attempt his/her own identification. Next, positive ID was made by the experts and specimens were placed on the tables according to genus, for all to examine and study.

On Saturday evening after a super dinner cooked and served by a charming group of Rebecca ladies from Dayton, Harold Treib, President of the Tri-Cities Mycological Society, gave recognition to all those who helped and seven door prizes were awarded, PSMS capturing five.

With Dr. Stuntz winning a lovely, bright pillow, the evening was topped off by an enjoyable slide lecture given by Dr. Stuntz on his pet of 40 years, Inocybe.

To sum it all up, Tri-Cities did a great job and we will look forward to seeing them at Cispus.

## THE MIGHTY MUSHROOM Irene O'Connor

The article "It's nutritious, and may be good for what ails you" by George Bullard, appeared in a Detroit newspaper. The lowly mushroom.

Bet you thought that all it was good for was smothering steaks and pizzas. Wrong!

Elixir from the versatile mushroom is credited with lowering cholesterol in humans and knocking out tumors. And some scientists even use mushrooms to make rubber.

A University of Michigan professor, Kenneth W. Cochran, has received a \$20,000 private grant to continue research on mushrooms - a fungus prized more for succulence than for nutrition or medicinal properties. "But we're not the only freaks - others are studying mushrooms too," said Cochran, who's jokingly defensive about investigating what amounts to only a footnote on most menus. He's been studying mush-

rooms intermittently for 20 years and it's serious business. Research so far by Cochran shows that some mushroom extracts can prevent or reduce polio and influenza viruses in animals and tissue cultures.

Japanese mushroom scientists already have isolated and identified eritadenine - a substance that lowers cholesterol, which is blamed for contributing to a number of ills ranging from heart disease to the formation of gallstones.

Cochran plans to use his new grant to continue exploring the potential health giving properties of the common American mushroom, Agaricus bisporus. Ironically, for all the properties attributed to the mighty mushroom, it contains about 88% water. However, the traces of medicinal substances in the other 12% excite researchers. (Who knows. One day doctors might find themselves prescribing mushroom pizzas for what ails you).

## Second Instalment of the copyright article from BMC bulletin LONGEVITY OF TASTE AND TEXTURE OF WILD MUSHROOMS AFTER STORAGE by Margaret H. Lewis

COLLYBIA platyphylla (Tricholomopsis platyphylla) is a waste of time to save, having neither body nor tang. Dried Collybia radicata, when reconstituted, has a nice flavor for many months, but Collybia dryophila's is elusive.

COLLYBIA velutipes (FLAMMULINA velutipes) is the choice one, lasting several years canned, (with deep color) but glutinous caps can become tasteless in a year. Pickled buttons are a good bet.

COPRINUS demands quick action in the kitchen, but keep your fingers crossed. Count on the shaggy manes to make it, in either pickling or canning. If you have the magic touch they'll also freeze, sauteed slightly or uncooked - but use before the year's out. They'll stay white too.

Coprinus atramentarius, dried, keeps awhile, Coprinus micaceus is tricky but, frozen sauteed, can be saved if popped frozen into sauces and soups without getting into just ink.

CORTINARIUS albo-violaceus and obliquus better be sliced and sauteed to make Duxelles sauce. Keep refrigerated a month. Flavor barely makes it, but with other bits and pieces from mild fungi the Duxelles mixture is good.

CRATERELLUS cornucopiodes, frozen raw, keeps shape, flavor very slowly leaving at year's end. Sauteed and frozen it's limp but tasty longer. Dried, it turns out mild!

HYDNUM caputursi (HERICIUM coralloides) frozen, sauteed, loses its lovely essence in a few months.

HYDNUM repandum (DENTINUM repandum) sliced thin, dries well and even smells inviting after one or two years, though only odor is left. Use crushed for spicy flavoring within a year.

HYGROPHORUS species are best dried, or sauteed and frozen if longer than six months' flavor is desired. Canning dilutes taste, H. fuliginus and H. flavodiscus are rewarding, but H. pudorus, never! H. praetensis is especially good frozen, H. hypothecus, dried.

HYPHLOMAS are either delicate or of marked flavor. Hypoholoma incertum (PSATHYRELLA candolleana or incerta), frozen, sauteed gently, keeps flavor a year. H. sublateritium, "ol' brick top", gets much attention, though flavor varies from year to year, oftentimes because of habitat.

Pickled buttons last, if you keep your fingers from jar. Canned they stay a year and more sometimes. With oil added before sealing they seem to be more flavorful, make most excellent Italian sauces. Note - I keep canned bricktops in refrigerator (as they're used for demonstration purposes) where color remains vivid. Dried for use they even taste good just chewing them. They're old within a year.