

SPORE PRINTS



Verpa bohemica

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

April 1977

Number 131

FIELD TRIPS

Dick Sieger

April 9 (one-day) Tolt County Campground located one-half mile south of Carnation.

Note, this one-day trip is designed for newcomers to show them how to hunt for *Verpa bohemica*.

This year, we cannot guarantee that we will find anything, since we might already be too late.

No potluck. Hosts: Monte & Hildegard Hendrickson

April 30 - May 1 Taneum Campground

Travel eastbound on I - 90 past Cle Elum. After passing the rest area, take the first exit #93.

Use the overpass and a second overpass. Continue along Taneum Road #1902 for about 6 miles to Taneum Campground. The camp is at about 2000' elevation, and the ranger will open the gate on Friday. Haul out your own garbage. No water at the camp.

WHAT IS A POTLUCK?

Dick Sieger

A potluck dinner is a meal to which every participating family brings one dish sufficient to feed the family. Since there usually are enough families attending, we do not assign specific dishes: the hot dishes, salads, and desserts always seem to come out "right". So for the next fieldtrip, every participating cook should prepare his/her specialty and we will continue to have the "best potlucks ever".

MORE ON FIELD TRIPS

Monte Hendrickson

Since the weather in the spring (and this year particularly) is hard to predict, PSMS has found a way to cancel fieldtrips if there is belief that the anticipated mushrooms have already fruited or have not shown, whatever the case may be.

During the week prior to a scheduled fieldtrip all members of PSMS should read the PERSONAL column of the Seattle Post Intelligencer and the Seattle Times, because if a previously scheduled fieldtrip has to be cancelled, the following message will appear on Wednesday and Thursday: THE SCHEDULED PSMS FIELDTRIP IS CANCELLED.

If the fieldtrip will be held as scheduled, NO NOTICE, will appear.

PSILOCYBE STUNTZII

H.R.H.

Gaston Guzman and Jonathan Ott reported in *Mycologia*, an international mycology journal, the discovery of a new hallucinogenic mushroom, which was first collected on the UW campus. The mushroom, *Psilocybe stuntzii*, was named after Dr. Daniel E. Stuntz, "in recognition of his valuable research in the field of mycology". Dr. Stuntz first collected the *psilocybe* in the fall of 1972. It appears mostly in cultivated areas. "That's why it's on campus so much," Dr. Stuntz said. It grows especially well in the beauty bark used as mulch. The fungus could not be identified when first picked. A taxonomic guide indicated it could be one of two species, but it is very difficult to "key out" or identify members of the genus *psilocybe*. It finally was found that it was a heretofore unidentified variety.

PRESIDENT'S REPORT

Jack Orth

Onehundred and seventy-eight attended the 13th Annual Banquet, held in the Officers' Club at Pier 91 which was a vast improvement over past banquet locations. The Officers' Club is located right on the waterfront with a terrific view of the City, which is especially attractive at night with the lights of Seattle sparkling on the water of Puget Sound. Although the dinner started a little late (the chef said the beef needed fifteen minutes more cooking time) everyone was served in a surprisingly short time - and a delicious meal it was.

Jerry Cone did a professional job as Master of Ceremonies. He especially thanked Louise and Carl Rautenberg for the splendid job they did in arranging the tables and organizing the whole operation.

The guests at the head table included Helmuth and Caroline Naumer (director of the Pacific Science Center); Dr. Stuntz; his students Gustavo Escobar and wife Maria; Susan Libonati Barnes and friend Richard Palmer. The others were PSMS officers and trustees: Jerry and Molly Cone; Louise and Carl Rautenberg, and Jack and Navarre Orth.

As is customary at the banquet, Jerry introduced the newly elected board members and officers:

Vice President: Jennie Schmitt

Secretary: Sally Ann Hansen

Board Members: Ken Chaplin; Dick Sieger; Winston Hufford; Fred VanDeBogart; Marlene Friend.

Alternates: Carl Hermanson; Paul Jones; and Paul Anson. A check for \$1,000 was presented to the Pacific Science Center for our continued support. And two of Dr. Stuntz' students Susan Libonati Barnes and Gustavo Escobar were given scholarships of \$300 each. (They both assured me they would be delighted to assist on our fieldtrips. - So look forward to meeting them).

Another award was given (with resounding enthusiasm) to Hildegard, even though she and Monte were vacationing in California, for the outstanding job she has done as editor, and the numerous other jobs she and Monte perform for us. (You will see her unique nametag at the next fieldtrip or meeting). As Louise said the business part of the meeting was the shortest ever. The only thing of importance was a show of hands of how many would like to have a Cispus III Foray in the fall. - And there was enough interest to start Scott Chilton organizing it. The rest of the evening was devoted to socializing and dancing to the best band we have had in years, interspersed with door prize drawings.

WOOD BLEWIT OMELETTE

The following recipe was developed by the British mycogastrophonomist and painter Ray Cowell and printed in the November 18, 1976 issue of *New Scientist*.

In butter fry separately equal quantities of roughly chopped onion and blewit. Add a little flour, then milk to make thick, creamy white sauce. Season. Keep hot. Make omelette. When just set pour in sauce. Fold over. Cover with grated cheese. Grill until melted but not brown.

N.B. Thinned, the sauce makes cream of wood blewit soup.



P.
S.
M.
S.
Spore
Prints

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

OFFICERS J.W. (Jack) Orth, President (523-0586)
Jennie M. Schmitt, Vice-Pres. (255-5286)
John T. Mudge, Treasurer (682-1962)
Sally Ann Hansen, Secretary (246-2673)

TRUSTEES Ken Chaplin (852-1623); Marlene Friend (725-
2083); Robert Hanno (767-6381); Earl Harrison
(932-1612); Winston Hufford (486-4784);
Ronna Randall-Brown (232-8998); Louise Rau-
tenberg (542-5109); Dick Sieger (362-6860);
Fred VanDeBogart (362-2397); Buzz Walters
(243-3758); Milton Grout (immed. past pres.)

ALTERNATES Carl Hermanson (723-5127); Paul Jones
(772-5024); Paul Anson (282-2238).

SCIENTIFIC ADVISER Dr. Daniel E. Stuntz

Calendar

April 9 Fieldtrip to Tolt River Campground (very iffy mush-
room wise)

April 11 Monday, Membership Meeting, 8:00 pm

April 18 Board Meeting

April 22 Deadline for Spore Print Material. Send all articles,
art work, and photos, to the Editor,
4029 East Madison, Seattle, Wa. 98102

April 30 - May 1 Fieldtrip to Taneum Forest Camp

May 9 Monday, Membership Meeting, 8:00 pm

BITS AND PIECES

On Sunday, March 6, Ed and Ella Cantelon found the first
Verpas of the new season. They have this private patch all
staked out and check it every year. Only one other year did
they appear any earlier (namely March 4).

Howard and Fay Melsen are all moved into their new home
and their new phone number is 522-5848.

This is the last issue of Spore Prints which our printer Chet
Kingsbury is going to produce. He has sold his business and
is going to retire. He has printed the bulletin ever since it has
been published in the present format. We are anxious to meet
his successor.

Ken and Vi Simpson make their home now at 906 Mountain
Villa Drive, Enumclaw, phone: 825 - 4347.

Membership Meeting

Monday, April 11, 1977, 8:00 pm., Eames Theater
The Pacific Science Center.

Program: Dr. David Hosford will talk about his research on
Gasteromycetes (fungi that bear their spores within containers
until maturity). Dr. Hosford is a professor at Central Washing-
ton State College at Ellensburg, and studied under Dr. Stuntz.

NO BOARD NEWS THIS MONTH

H.R.H.

Failing to meet a quorum, at the February meeting the mem-
bers present discussed business matters. Especially the fact,
that it seemed as if we would not be able to use the Eames
Theater later in the year, in spite of the fact that Mr. Naumur
(the new director of the Pacific Science Center) said at the
February meeting that only "earth-shaking" events would dis-
place PSMS. Well, everything seems in harmony again, and
PSMS will meet in June one week earlier than usual.

Also Scott Chilton sounded out the board whether PSMS would
want to hold Cispus III, an educational foray, this fall. The
'vote' was positive and a committee will start working on this
matter.

The March Board News will be presented next month because
Monte and I took a vacation during my spring-break which
had us miss both the banquet and the March board meeting.
Also next month we will report on the new committee assign-
ments for next year.

BANQUET REPORT

Louise Rautenberg

It is particularly gratifying to me that so many of you had
such a great time at Pier 91. The Club was very colorful with
red primroses and yellow daffodils supplied by the Dusty
Flower and Garden Shop at Westgate.

As is usually the case, all things were not quite as they should
have been: such small wine glasses must have been planned
for midgets, yet some of us PSMS'ers are inclined to be super-
duper winos. We do enjoy our wine. And I also must apolo-
gize for our chef for the unforeseen lack of salmon for some of
you due to not getting done on time. Some of these errors were
due to the fact that within the last week a change of manage-
ment took place at the club which was caused by illness.
I especially would like to thank Joy McKnight for making the
lovely place cards. They were exquisite. Also thanks to
Helena Kirkwood for tickets, and all the hours of work Ronna
Brown put in mailing tickets. Our drink ticket chairman,
namely Carl Rautenberg, did a marvelous job counting change
and bills and doling out the correct quantity and color of
tickets.

I wish to thank the board members who were so gracious as to
supply our door prizes. These included home-made wine,
green plants, banana bread, and dried mushrooms.
The music by Joe Farmer was very much enjoyed, particularly
by those who stayed after 11 and watched Buzz and Jeanine
Walters entertain us with the Shottish, Polka, Hambo, Swe-
dish Waltz, etc. They were superb, and maybe we should
call a special meeting and have them give us dance lessons.
At any rate our banquet was a huge success thanks to all of
you who attended and to one of our members who so willingly
gives her time and valuable assistance to any who need it,
not only for the banquet, but for any and all club business.
She is a dedicated and loyal volunteer: namely our editor
Hildegard Hendrickson. Many, many thanks.

I realize everybody knows Jennie Schmitt by her ever-ready smile since she is very much involved in PSMS activities. However, we also want to learn about her activities that are not related to PSMS.



Jennie was born in Boaz, Wisconsin, where she attended grade and high school. During the war she came out to the Northwest to work in the Bremerton Shipyard, and that's where she and Dave met, got married, and have made the Puget Sound area their home ever since. Jennie and Dave have two sons, but her attention these days is focused on her 8 grandchildren and two great-grandchildren, who all enjoy eating mushrooms. But not all of them are equally enthusiastic collectors.

As a housewife and homemaker Jennie has been quite busy the last couple of years. She and Dave sold their home in Renton, which they considered too big and too much work. They bought a trailer and moved into a trailer court so that they would have more time to pursue their leisure interests. But at the same time, they are building a cabin (or house) at Wye Lake for retirement enjoyment. Wye Lake, where the fungi grow in abundance must be credited with getting her into mushrooms. She wanted to know what they were, and soon she was taking classes, and continued to study on her own, and is now, as all of us know, an expert identifier at many fieldtrips. She also teaches classes in mushroom identification in Renton and South Seattle. In addition to fungi, she is also interested in wildflowers and mosses, as well as cooking. She is an avid collector of recipes.

And now we will tell you about some of her involvements in PSMS. Jennie served as membership chairman for two years. She still is on the Education Committee. She was one of the main organizers of the Cispus II Educational Foray. And for a number of years she has been in charge of the preservation booth at the annual exhibit.

Jennie also is a member of the North American Mycological Society and has attended some of the national forays. In addition she has participated in the Aspen Foray two years ago.

WANTED : POISONOUS MUSHROOMS

Dr. George M. Hatfield of the University of Michigan is currently conducting research dealing with the chemistry of toxic mushrooms. He is in need of carefully air-dried or freeze-dried collections of Naematoloma fasciculare, Gymnopilus spectabilis, G. validipes, Clitocybe clavipes, Boletus luridus, Tricholoma pardinum, Entoloma lividum, Cortinarius orellanus, C. speciosissimum, and C. gentilis. Large quantities of these mushrooms will be needed and any quantities sent will be much appreciated. Notes concerning the date and location of the collection, along with name and address of the collector should be sent with the collection. The identity of each collection will be confirmed by a professional mycologist. Thus, care should be taken in the preservation of the carpophores in order to make identification as easy as possible. If the collector has any direct experience with the toxic effects of the collection being sent, a description of the symptoms experienced would be much appreciated. Send collections to G.M. Hatfield, Ph.D., College of Pharmacy, University of Michigan, Ann Arbor, Michigan, 48109

Due to the many calls received in the past few weeks, particularly from new PSMS members, we are reporting what happens on a fieldtrip.

First of all, these meetings are very informal (except educational forays). Come and go when you please. Many members and their guests with recreational vehicles, tents, etc. arrive Friday evening and stay till Sunday afternoon (or longer). Some people come for one day only Saturday or Sunday. (We recommend the Saturday for better prospects for hunting and the potluck).

When you arrive at the destination, a host and hostess welcome you with coffee and cookies. Everybody should, please, upon arriving sign the Fieldtrip Attendance Register and indicate whether they plan to stay for the potluck. It also helps us to find out if the chosen sites are desirable and/or convenient (for scheduling future fieldtrips).

It is recommended that newcomers arrive before 11 am, since experienced members always are ready and willing to take newcomers in tow.

It has recently been suggested that groups should leave the fieldtrip site at 9, at 10 and at 11, so that newcomers can plan on having a guide. If you arrive later than 11 am, the hosts can tell you approximately where you most likely will find the mushroom(s) of the day, but you will have to find them alone.

On a fieldtrip participants are encouraged to bring in every different mushroom that they find, because an expert will identify them all (and you can then go back and pick the ones you left if it is a worthwhile one). But most of all, you add to your knowledge about fungi by seeing, feeling, smelling and tasting the many specimens which your fellow PSMS members have brought in.

After a good (or bad) day of collecting, you return to the camp, tired and eagerly await the delicious pot-luck dinner. Every fieldtrip participant contributes a dish; it can be a hot dish, a salad, a dessert (enough to feed the contributors' own family). Every dish in the potluck is gourmet, since every cook brings her(his) favorite recipe (patented, of course).

After dinner we sit around the campfire, tell mushroom- and other tales, and enjoy great fellowship.

The sites chosen for fieldtrips accommodate recreational vehicles, tents, etc. and have the necessary facilities.

WELCOME TO THE FOLLOWING NEW MEMBERS

Laurel Bliss, Coupeville; Emma Chang ME2-7082; Sheryl Fike, EA3-5428; Rafael & Gloria Kimpo 226-8337; Mr. & Mrs. W.S. VanAtta, Bellevue.

LETTER FROM DR. ALEXANDER H. SMITH

My thanks to you and Joy Spurr for the photo and data on Boletopsis smithii. The discovery of this species and making it recognizable to the interested public is a good example of how mycological clubs serve the mycological public whether they are scientists or laymen. It is also a demonstration of how describing a species from a single collection "pays off" in increased scientific knowledge if done with reasonable conservatism. The Puget Sound Mycological Society is to be congratulated on its work in bringing this species to the "light of day".

I plan to have an article of a page or two for Spore Prints later. It will deal with certain aspects of hallucinogenic mushrooms. Also, I have finally tried to learn something about Amanita and there should be some "spin off" for you from this project.

AN UNDERGROUND BOOST FOR SEEDLINGS

Dorothy Bergstrom

With permission of the author, who is Public Information Specialist with the U.S. Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland, we are printing this article, which appeared in Forestry Research, a publication of the U.S. Department of Agriculture.

Dr. James Trappe, who spoke to us at the October 1976 meeting, adds that mycorrhizal fungi include all the Boletaceae, Gomphidiaceae and Russulaceae, Cortinari, Inocybe, Tricholoma, Laccaria, Scleroderma, Pisolithus, Thelephora, truffles and false truffles, plus species in numerous other genera.

Several thousand tree seedlings recently planted by Weyerhaeuser Company in Washington and Oregon are fighting for survival on forest sites where regeneration has been extremely difficult. Researchers are watching them closely to see whether they will establish the new roots they need to survive and grow.

The seedlings, planted in the spring 1976, are Douglas-fir, ponderosa pine, and western hemlock. Because of research, they may have a chance to become established where others have failed. Before being planted on Weyerhaeuser tree farms, they were given a boost with a specially selected mycorrhizal fungus. The seedlings started life in the laboratories and greenhouses of the Pacific Northwest Forest and Range Experiment Station in Corvallis, Oregon. They grew from seeds planted in containers of vermiculite and peat moss, to which a mycorrhizal fungus had been added. Mycorrhiza literally means 'fungus root'. Fungi capable of forming a symbiotic or mutually beneficial relationship with trees are known as mycorrhizal fungi. These fungi form mantles around the roots of plants and assist them in three important ways: (1) they help the roots absorb nutrients and water, (2) they protect the trees from harmful fungi, and (3) they produce growth regulators that foster increased growth and prolong the life of rootlets.

Cooperative study

In 1974, Weyerhaeuser and the Pacific Northwest Station began a cooperative study to find out whether reforestation success on hard-to-regenerate sites could be significantly improved by inoculating container-grown seedlings with mycorrhizal fungi. The Weyerhaeuser study was designed by Bratislav Zak, PNW plant pathologist, recently retired. He worked closely with Donald H. Marx, project leader for research on soil-borne organisms at the Southeastern Station, in planning the study. Southeastern Station researchers had successfully introduced mycorrhizal fungi into nursery beds, but no one had tried inoculating seedlings for planting in the Douglas-fir region.

Mycorrhizae surround the roots of a Douglas-fir

(magnified 5 times).



The initial phase of the Northwest study established inoculation methods, growing medium, and fertilizer levels. Then the seeds of ponderosa pine, western hemlock, and Douglas-fir were planted in individual containers of vermiculite and peat moss inoculated with a pure culture of one of four species of mycorrhizal fungi. The fungi, isolated in the laboratory from fresh mushrooms, were selected because they are widely distributed in western forests and can be grown in laboratory cultures. One of the species is prominent in Douglas-fir forests; the other three are commonly found under ponderosa pine and western hemlock as well as Douglas-fir. The seedlings grew in their containers in the Corvallis lath-houses for about 6 months before they were planted on Weyerhaeuser tree farms near Mt. St. Helens, Wa., and Klamath Falls, Oregon.

Before the study is completed, several thousand more seedlings will be inoculated with other fungi before being planted. When measurements of seedling survival and growth on the tree farms are completed in 1978, researchers will be able to tell foresters which of the mycorrhizal fungi tested best aid seedling establishment on hard-to-regenerate sites in Northwest forests. (to be concluded next issue)

TOUR TO THE OSTROM MUSHROOM FARM

H.R.H.

We have just returned from the tour to the Ostrom Mushroom Farm (March 26th) and saved this much space in this issue to report about it.

We left Seattle under a cloudy sky which opened and leaked by the time we arrived in Olympia. But since all of the activity at the farm is under cover, this did not matter. About 55 curious PSMS members were divided into two groups and escorted through the complete operation by Bill Street and Jeff Chilton. The whole procedure is very mechanized and the growing process tightly controlled to prevent diseases and the loss of revenue. When we compare the nearly sterile and controlled atmosphere in which the Agaricus bisporus are grown, with the conditions under which the wild ones grow on their own, it seems a miracle that we find any at all, i.e. that mother nature on her own, controls the growing conditions so accurately. (But then I do remember that there are "good" years and there are "bad" years).

At Ostrom's we sow all phases of the growing process, from the preparation of the "soil", the pasteurization of the soil (to kill undesirable spores, insects, and diseases, etc.) to the application of "spawn", adding of dirt and lime, and finally the appearance of fruiting bodies and the harvesting of the fungi. The tour was very educational. Unfortunately, we had not been told that on Saturday you can buy fresh mushrooms only if you have placed an order during the previous week. You can call them under a Seattle number 839-500 and they will quote you their prices for the various grades that are sold fresh (petite, regular, medium, large, custom, broken, etc.) Their address is 8323 Steila-coom Road S.E., Olympia, Wa., 98503. You won't get any fresher Agaricus bisporus anywhere (unless you grow your own) There was one other handicap for me at this tour. I had laryngitis and could not utter a sound. And those of you who know me, know what a difficult situation that is for me, since I like to talk.

It was nice to see Judy and Phil Roger (who now reside in Hoquiam) even if I couldn't talk to them.

A Japanese mycologist is presently experimenting in growing other varieties of mushrooms at Ostrom's. At this time, however the greenhouse is a top secret area and we could not go there.