

SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY

200 Second Avenue North, Seattle, Washington, 98109

June 1977

Number 133



CRYSTAL SPRINGS FIELD TRIP REPORT H.R.H.

We started out for this field trip with some apprehension, since the previous one into the general area had to be cancelled because of lack of rain and mushrooms. But when we arrived in camp on Friday, May 13, and saw some members picking morels, we knew that things were different. Friday the weather was beautiful, and after stabilizing the trailer, we went out to search for mushrooms, and found some morels.

During the day on Saturday and Sunday (May 14 and 15) a total of 84 members and guests signed the register. They found a total of 28 species, which were identified by Jennie Schmitt. Among the finds was a sterile *Gomphidius oregonensis*, probably a "holdover" from last fall. Among the edible varieties brought in were Morels, *Verpa bohemica*, *Coprinus*, *Ramaria*, and some early *Boletus edulis*. Most people found some morels, although they were hard for the newcomers to spot in the grassy environment.

Fifty-three persons stayed for the delicious potluck, and quite a few less enjoyed the camp-fire in the shelter afterwards. Bob Hanna and Margaret Holzbauer did a splendid job of hosting at this camp, which the forest service opened specially for us, since the general opening day for the camps is Memorial day.

WELCOME TO THE FOLLOWING NEW MEMBERS

Alice L. Edens (524 - 7997); Wayne O. Jones (763 - 0565) Thomas and Karen McKnight (486 - 2118) Vernon L. Nelson Forks, Wa., Lori North (525 - 9151) Lew & Janice Zibas (329 - 7836).



SUMMER FORAYS H.R.H.

In other parts of the country, the mushrooms appear in the summer and the following national forays are scheduled:

The 1977 Foray of the North American Mycological Association will be held at Concord College in Athens, West Virginia, July 21st through the 24th. The principal mycologist will be Dr. Kent McKnight of the USDA. Send your registrations to Mrs. Jerome Snyder, 3709 Calvert Place, Kensington, Maryland, 20795.

The Aspen Mushroom Conference will be held August 7-12 at the Hotel Jerome in Aspen, Colorado. The program is planned for the beginner as well as the advanced student. Dr. Harry Thiers will conduct a course in taxonomy. Dr. Roy Watling will teach a workshop in laboratory practice. Daily sessions on identification and microscopy will be held. For information write to Aspen Mushroom Conference, Beth Israel Hospital, 1601 Lowell Boulevard, Denver, CO. 80204.

The Second International Mycological Congress will be held August 27 - September 3 at the University of South Florida, Tampa. Information may be obtained by writing to Dr. Melvin S. Fuller, Secretary, IMC, Department of Botany, University of Georgia, Athens, Georgia, 30602.

PHOTOGRAPHY Ed Cantelon



This is to advise the membership that the PSMS color slide file has been placed in our care. Joy and Roger Spurr developed this file, contributed many of the slides, and turned it over to us in precise order. Joy and Roger are involved in many projects, time for all of them has become a problem. We will try our best

to take care of this one.

The file contains 1559 color slides of mushrooms, 25 of mushroom features, 36 of mushroom characteristics, and 292 of people, field trips, exhibits, and banquets. A grand total of 1912 slides. These slides have been taken by Joy Spurr, Ben Woo, and others whose names no longer appear in our register. They are all of professional quality. Any member may borrow from this collection, either by coming to our house or you may call us at 212 - 6115 and tell us which slides you wish. We will mail them to you or bring them to a membership meeting. There are also a number of black and white negatives, taken at field trips, exhibits, and banquets. Prints from these negatives are available at nominal cost.

December membership meeting will continue to be Photography Night. This feature was initiated by Joy two years ago, and both of them were fun meetings. Please remember this when you are taking pictures and choose the ones that would be of interest to our Society. This would include slides or pictures of mushrooms, people or Sasquatches who gather mushrooms or other creatures of the wild. This is not a contest, if the pictures please you, they will please the rest of us. Give us a call, if you have something you wish to show.

LETTER TO PSMS

Dear Mr. Orth: The Lester W. Mittelstaedt Foundation made a grant of \$600 to the Seattle Public Library for purchase of textbooks, journals, and other publications of significance in mycology.

I request that you appoint a committee to make selections and implement this program with Mr. Murray at the Seattle Public Library.

Please make recognition of this donation by notation that the purchase of said material was made possible by the above foundation.

Please inform the foundation of the committee action at appropriate times.

Cordially yours, Lester W. Mittelstaedt, M.D.

INTEREST IN MYCOLOGY IS GROWING

Did you know that PSMS is exchanging bulletins with 15 mycological societies from all over the United States and is continuously receiving requests from additional clubs. The fame of Spore Prints seems to be spreading like mushrooms do.



P. S. M. S. Spore Prints

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gard Hendrickson, Editor, 4029 E. Madison, Seattle, 98102

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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

June 13 Monday, Membership Meeting, 8:00 pm.

CLOSED JULY & AUGUST

August 22 Board Meeting, 8:00 pm

August 26 Actual Deadline for Spore Print Material. Send
all art work, articles, and photos to the editor,
c/o 4029 E. Madison, Seattle, Wa., 98102.

September 12 Monday, Membership Meeting, 8:00 pm.

October 15 & 16 The 14th Annual Mushroom Exhibit.

HAVE A NICE SUMMER !

THINK EXHIBIT

The 14th Annual Exhibit will be held October 15 & 16 and is chaired by Winston Hufford. It would make Winston's job a great deal easier, if we all would start thinking "Exhibit" right now and call him (phone 486-4784) and offer our services. Positions are available to match anyone's talent. And this goes for the newcomers too. Working on the exhibit, in addition, is a lot of fun, and a very rewarding experience when you see the accomplishment. Right now, it seems October is a long way off, but a lot of work has to be started soon, and the sooner the better.....

Membership Meeting

Monday, June 13, 1977, 8:00 pm., Eames Theater,
The Pacific Science Center.

Program: An exciting, two-fold program has been scheduled. Mr. Leonard Steiner, of the Seattle Audubon Society, will give a slide-lecture on the Summer Birds which we are likely to encounter in eastern and western Washington during the coming summer months. His presentation will be followed by Howard Melsen, a past President of PSMS, who will talk about Summer Mushrooms. How can we miss, it's either look up, or look down.

In addition, the mushroom growing kits will be on display this time. Due to a scheduling conflict Mr. Swanstrom could not make the May membership meeting. So, if the summer of 1977 should be a dry one, you might want to attempt to grow your own Auricularia, Agaricus bisporus, Pleurotus ostreatus or Flammulina velutipes.

The mushroom growing kits are sold by the Kinoko Company of Oakland, California. The company is owned by Henry Mee, a plant pathologist, who last year was successful in growing shiitake, a favorite Chinese mushroom.

BOARD NEWS

H.R.H.

President Orth called the meeting to order and asked for approval of the minutes of the previous meeting. Then President Orth stated that Winston Hufford, a trustee, agreed to become the chairman of the 14th Annual Exhibit. Winston announced that Ron Richardson had taken over as chairman of the construction committee, but that the Arts & Crafts Committee still needed a chairman. Also, he would like to get the chairmanships of all committees firmed up at the June membership meeting, so that the advance planning can be done during the summer months. There will be sign-up sheets at the podium during the June membership meeting and ALL PSMS members are asked to volunteer for some task. We have a lot of talent within our Society, and when called upon most members are willing to help, but they don't always come forward on their own. Also the trays in which the mushrooms are displayed during the Exhibit are in need of repair, and Winston plans a work party during the summer, and needs members who have talents in carpentry. So please call him and volunteer.

Earl Harrison, chairman of the education committee reported that the committee has had two meetings with Dr. Stuntz and has made considerable progress in updating the pamphlet of educational materials compiled by PSMS. Also helping are Milton Grout, Jennie Schmitt and Belle Swaffield, who have used the pamphlet in their classes. A printing of 1000 copies is planned for this new edition.

The Board approved the purchase of the new propane camp stove and propane tank for the field trips.

Bob Hanna suggested that a duty sheet be prepared for hosts at the field trips to serve two purposes. To let the hosts know what things need to be done, but also to encourage newcomers to volunteer for hosting who might have hesitated to do so, because they did not know what was expected. Dick Sieger, our field trip chairman, said he already was in the process of making out such a sheet; as he is getting familiar with the job himself.

The Board authorized the President to spend, at his discretion, up to \$200 per year for professional fees, if the need arises. The Board is still open for suggestions on how to improve or change the format of the Annual Exhibit.

(The following article appeared in the March 20, 1977 issue of the San Francisco Examiner and Chronicle)

Henry Mee's business is mushrooming. As a college sophomore he discovered how to grow the common white button mushroom in Taiwan. Last June, the Oakland plant pathologist beat out 300 scientists in finding a way to commercially raise shiitake, the famous black forest mushrooms. It's the first time they've been grown in the United States and he's been inundated with requests for them from Hawaii to New York.

"Normally it takes two years to get the first shiitake harvest, growing the mushrooms outdoors on hardwood logs. And that's only 50 per cent successful, because of diseases and pests. Some Japanese scientists have gotten the growing time down to seven months, but I've reduced it to 40 days," said Mee. Two years ago he went to Japan and came back and began experimentally growing shiitake in his bathroom. Then he moved on to the garage and last week was proudly standing in the midst of the sweet-smelling 4,000 square foot shiitake forest he conceived, designed and built in an industrial park near the Oakland Airport.

The flavorful, fragrant large brown mushrooms are considered a drug in Japan, according to Mee. "They are so high in vitamin D that you'll tan faster if you eat a lot of them. They're also high in protein, rich in B vitamins, calcium, phosphorus and iron."

Here they are prized for taste. Fresh shiitake are far more flavorful than the dried black forest mushrooms, which up until now have been the only ones available. They have a more exciting texture than the reconstituted dried ones. Raw they are crisp, crunchy and garlicky. Lightly sauteed in butter, they taste meaty with the texture of abalone or lobster.

They can be used in any recipe - stews, sauces, soups, salads, omelets, souffles, stir-fried vegetables, poultry and meat dishes.

"But a little goes a long way," Mee said. "The shiitake are so much more flavorful than regular button mushrooms that I only use half as many in a recipe. One-half of a medium shiitake cut in toothpick-size sticks is enough to flavor a salad for four people. One large shiitake is plenty in a whole potful of spaghetti sauce."

Although the price is high - about \$1.65 for four ounces - there is almost no waste or spoilage. "Shiitake are only 74% water compared to regular mushrooms, which are 90% water. So you can bounce them on the floor and you won't damage them. They also can be stored in the refrigerator for several weeks or longer," said Mee.

Growing button mushrooms in Taiwan and shiitake here is just the warm-up for Mee's real goal - the precious truffle. "I believe truffles can be cultivated," he said with a wistful smile. "Two years ago I went to Japan and came back to do this. Next year we're going to France. Give me a year or two and I know I can grow truffles. For one thing, they are very specific. They always grow under oak trees. The only problem is that in nature it takes 10 to 16 years to get a truffle after planting the oak seed."

"Truffles will be easier to cultivate than morels," said Mee, "because morels don't have as specific requirements for growth."

However, morel-lovers will note he did not say impossible. Several of the exotic mushrooms are easy to grow in terrariums, and Mee's Kinoko Company has come out with grow-your-own mushroom kits for the regular button mushroom, the fragrant, delicate velvet stem mushroom, the large, ivory-

colored, meaty tree oyster and the tender, jelly-like wood ear. He hopes to have a kit for shiitake in a year or so.

"I hope someday everyone will be able to grow their own food. Mushrooms may become the newest indoor plant."

FOSSIL POLYPORE FROM IDAHO

Paul Vermeer

FOMES IDAHOENSIS BROWN

(The following article appeared in the March 1977 issue of Mycena News, the publication of the Mycological Society of San Francisco)

Fomes idahoensis in fossil form was first collected in 1939 by James L. Morris, Boise, Idaho. Specimens are now preserved and deposited in the collection on the Henry Show School of Botany in Idaho. During the last NAMA Foray several specimens were exhibited and photographed by me.

The 1939 fossils were found amongst other fossilized woody material in stratum just above a white bed of volcanic glass sand. Chemical tests revealed that it was composed almost entirely of calcium carbonate. Measurements were 13-1/2 cm. in length, 4-1/2 cm. in thickness, with a series of convex-rounded 'rings' of growth on the top, the underside being rather flat and porous. These pores measured 750 per square cm. Microscopic examination did not reveal any spores or other significant cellular structures. F. idahoensis resembles our F. pinicola most closely, however, this last species has about 1000 pores per square cm.

In 1946, additional findings were made in the same area (five miles north of the 1939 location), this time 10-1/2 miles south of Bruneau and 1/2 mile east of State Highway 51.

This second find was deposited in 'lake sediments, semi-consolidated white, and buff sandstones and sandy shales, volcanic ash;' (Group 8 - Stratigraphical study of beds, Piper 1924). The specimen measured 10 x 11 cm. It had only one pore layer and approximately 720 pores per square cm. The thickness did not exceed 2 cm. There was a filamentous structure visible, suggesting 'mycelium' deposit. Again in 1947, specimens were found at this last deposit.

Previously, the only other recorded area of a fossil polypore in the USA was from California. This one was identified as F. applanatus from the Pleistocene of the Tomales Bay region. The earliest find of a fossil fungus is an Oligocene species of Polyporus described by Conwentz from the Baltic amber deposit.

BITS AND PIECES

It was nice to see Judy Roger at the May membership meeting and hear about the work of the Key Council. To refresh your memory about all the people involved and the genera studied you might want to look up the April and May 1976 issues of Spore Prints. Kit Scates, the chairman of the Council, described the history and progress of the group. It is a long-range program, but will be of tremendous value to the collector who relies on macroscopic features of fungi.

DON'T DELAY sending in your reservations for CISPUS III which will be held October 21, 22 & 23, 1977. Limit is 175 registrants. First-come - first served.

Dr. David Hosford (speaker at our April membership meeting) who normally teaches at Central Washington State College, has been granted professional leave and will study Gasteromycetes at the New York Botanical Garden during 1977-78.

If anyone can help identify lichens Ella Cantelon would like to hear from you. Call her at 242 - 6115.

**FINANCIAL REPORT FOR THE YEARS
ENDED 31, 1976; 1975; and 1974.**

**PUGET SOUND MYCOLOGICAL SOCIETY
RESULTS OF OPERATIONS
YEARS ENDED DECEMBER 31, 1976, 1975 and 1974**

Our treasurer, John Mudge, not only compiled the financial condition and results of operations for the past fiscal year, but also provided us with a comparison of the last three years operations.

As can be seen on the bottom line, PSMS is in an excellent financial condition, since all sources of revenue were good. Membership is maintained at the 500 level, the Annual Exhibit was well attended, book sales flourished, and royalties from the cookbook are coming in. When analyzing the financial condition we must not forget that it was produced by hard work and dedication of our members, since our Society has never paid any member for the many, many services performed. It is generally believed that a reserve of \$10,000 for financing the Annual Exhibit, publishing books or pamphlets, or support of the Society in general, is needed, since there have been adverse conditions in the past (see 1974), while dues based on a membership of 500 would support the routine Society costs, like bulletin expenses, rental of facilities, field trips, educational and administrative costs. Once the basic reserve has been attained and maintained, any excess from sources other than dues, should revert to the membership in the form of educational forays, research support or educational activities. We thank our treasurer for the fine job he is doing, and especially the form of presentation which allows us the easy comparison with past years.

	1976	1975	1974
Membership			
Dues	\$4,699.00	\$3,933.55	\$5,618.50
Less - Membership expenses	(742.36)	(424.08)	(386.77)
- Bulletin costs	(1,651.89)	(1,393.38)	(1,216.03)
- Field trips	(147.06)	(101.33)	(153.95)
- General expense	(722.90)	(203.05)	(795.29)
Net	<u>1,434.79</u>	<u>1,811.71</u>	<u>3,066.46</u>
Banquet			
Receipts	1,558.50	1,987.50	1,809.50
Less - Expense	(2,173.56)	(1,921.79)	(2,207.35)
Net	<u>(615.06)</u>	<u>65.71</u>	<u>(397.85)</u>
Exhibit, Classes			
Book sales	3,763.05	5,157.48	2,271.66
Income - Exhibit, classes	3,961.25	4,030.29	1,808.25
- Cost of books sold	(3,189.43)	(2,263.07)	(1,240.68)
Less - General exhibit expenses	(1,883.23)	(2,456.35)	(2,254.98)
- Donations - Science Center	(4,609.00)	(1,500.00)	(1,875.30)
- Depreciation	(175.42)	(194.48)	(185.48)
Net	<u>876.22</u>	<u>2,773.87</u>	<u>(1,476.23)</u>
Royalties	378.34	865.24	618.92
Interest	251.43	335.95	223.31
Net gain for year	<u>\$2,325.72</u>	<u>\$5,852.48</u>	<u>\$2,034.61</u>

STATEMENT OF FINANCIAL POSITION

ASSETS			
Cash - Checking	\$ 7,875.95	\$ 7,908.47	\$ 8,085.87
- Savings	8,808.80	7,557.37	2,236.42
- Restricted (note)	2,000.00	-0-	-0-
Total Cash	<u>18,684.75</u>	<u>15,465.84</u>	<u>10,322.29</u>
Scholarship fund	-0-	-0-	500.00
Book Inventory	1,058.10	1,843.52	433.10
Equipment, net of depreciation	542.24	717.66	813.43
Mycological library	449.73	449.73	449.73
Total Assets	<u>\$20,734.82</u>	<u>\$18,476.75</u>	<u>\$12,518.55</u>
LIABILITIES			
State sales tax due	\$ 189.46	\$ 257.11	\$ 151.39
Equity - January 1	18,219.64	12,367.16	10,332.55
Gain for year	2,325.72	5,852.48	2,034.61
Total equity	<u>20,545.36</u>	<u>18,219.64</u>	<u>12,367.16</u>
Total Liabilities and Equity	<u>\$20,734.82</u>	<u>\$18,476.75</u>	<u>\$12,518.55</u>

Note: Account established for "set aside" funds for educational or scientific purposes. \$798.81 of this amount was set aside for tax purposes in 1975.

MUSHROOMS AND NUTRITION

Fred Stiegler of the Tacome Mushroom Society contributed the following information:

1. Cultivated mushrooms are higher in protein than any vegetable.
2. Lecithin is a highly important element as it keeps cholesterol particles from lumping together in arteries and vital areas.
3. There are only 66 calories per pound in fresh mushrooms and no more than 80 calories per pound in wild.

A booklet entitled: Slimming Ways with Mushrooms" can be obtained from American Mushroom Institute, P. O. Box 373 Kennett Square, PA. 19348.

IN MEMORIAM - BILL POLLARD

We were saddened to hear of Bill's death when President Orth made the announcement at the last membership meeting. Bill was a devoted member of PSMS, and he especially took the newcomers in tow and introduced many of us to our 'first' mushrooms. At every field trip he had mushrooms staked out in camp to show the novices. All of us have lost a good friend, but all of us have dear memories of Bill. And if we are lucky enough to end up in the same place, I am sure he will have a mushroom club formed, and the good spots to show us. Our sympathy goes to Pauline and daughter.

CHINESE-AMERICAN ASPARAGUS & MORELS

Recipe provided by Mycol. Society of Washington (D.C.)

Wash 2/3 lb. asparagus for cooking. Break off each stalk as far down as it snaps easily. Lay 1 or 2 stalks together on a cutting board. Cut them diagonally, making bias slices 1" long and 1/4" thick. Saute 1-1/2 cups morels (coarsely chopped) in 2-1/2 Tbsp. margarine until completely limp. Remove the morels with a slotted spoon and keep them warm. Combine the liquid remaining in the pan with 1 Tbsp. water and add this, with the asparagus, and a dash of salt and pepper, to a saucepan with a tight-fitting lid. Cover and cook over high heat for 5 minutes, shaking the pan occasionally. Check with a fork to see if the asparagus is tender-crisp after 5 minutes. (if not, cook 1 or 2 minutes longer, adding additional water if needed. Liquid should be evaporated at the end). Add the morels and toss together. Serves 2. Wild asparagus would also be suitable for this recipe.

FEEDBACK WANTED!

Monte Hendrickson

Just as this issue was composed, Judy Roger called from the coast and made an interesting suggestion for an early fall field trip near her home, north of Ocean Shores. She can practically guarantee 'buckets' to the pothunters (provided we get rain in August). There is a campground close by, as well as good motels for those without RV's, but no shelter, which makes the potluck chancy -- interested???

Several members have asked for a profile of Hildagard. We asked Milt Grout to do this profile. Thank you, Milt...F.M. & N.O.

Hildagard Hendrickson is a relative newcomer, having been a member for somewhat more than three years. In this short space of time it is quite safe to say that she has become one of the best known and highly regarded of all members. Approaching life with her characteristic warmth and enthusiasm, her interests range from clam digging to serving on the National Board of Governors of Beta Gamma, membership in which is the University of Washington Business School's highest award.

Hilde met Monte in Austria shortly after World War II. Monte had stayed on in Europe after completion of a tour of extended duty as a Signal Corps officer. In due course, Monte was instrumental in sponsoring her to immigrate to the United States and, of course, married her. They have two sons, Joe and Andy, both of whom have inherited the love and appreciation of the outdoors and are well known to many PSMS members.

Besides raising the two boys and participating in many outdoor activities, including championship tennis, Hilde completed her Bachelors, Masters and Doctorate at the University of Washington. She was elected to Phi Beta Kappa and holds the chair of Professor of Economics and Finance at Seattle University. Besides serving on the National Board of Beta Gamma Sigma, she is deeply involved in the Seattle University Faculty Senate and in special studies for the administration.

An active gardener, many members have enjoyed the products of Hilde and Monte's agricultural efforts at PSMS potlucks. Very few field trips have been missed by the Hendricksons and their zest for life is apparent not only in their interest in mushrooms, but their ready willingness to guide and encourage newcomers to the society.

While Monte undertook a two year assignment as a PSMS trustee, Hilde took on the tremendously important society office of Bulletin Editor. The Society will have extreme difficulty in adequately expressing its gratitude for the magnificent job of publishing without question the finest Mycological Society Bulletin in the United States. Monte, incidentally, is the layout artist for the bulletin. A very considerable behind the scenes effort is required to meet the schedules with a combination of scientific information, ours and other society's activities, personal activities, as well as a generous quote of diversified information.

We are extremely fortunate and extremely grateful for having Hilde as a member. Perhaps she can best be capsulized in the statement that everything she does, she does well.

Milt Grout