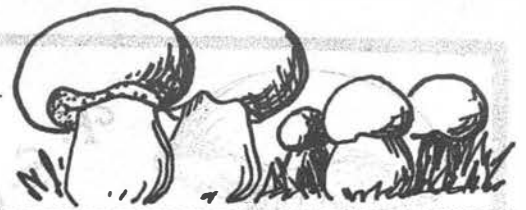


# SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY  
2559 NE 96th, Seattle, Washington, 98115

June 1983

Number 193



## THE 1983 EXHIBIT IS NOT THAT FAR AWAY Dennis Bowman

As a newcomer, however, an avid mushroomer, I probably did not know what I took on when I agreed to be the general chairman for the 20th Annual Exhibit. I hope however, to be able to count on the enthusiasm, dedication and pride of the whole PSMS membership, when I ask you to come forward now, and volunteer to help on one or more of the committees which are necessary to produce the Exhibit. Call me at 525-8399 please!

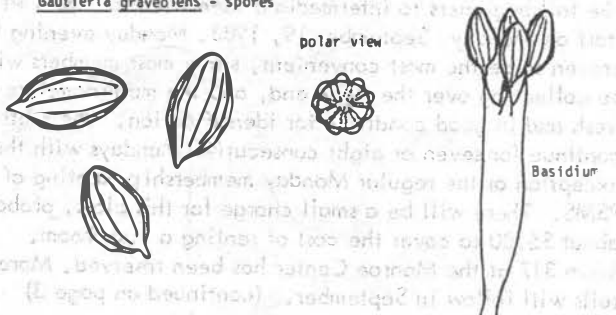
Alphabetically, the committees are: Arts & Crafts, Book Sales, Clean-Up, Construction, Commercial, Decorations, Feel and Smell, Freeze Dry, Fungi in Foodstuff, Fungus Collecting, Greenery Collecting, Greeters, Hospitality, Identification, Labeling, Membership, Micro-Projection, Mushroom Dyes, Mushroom Receiving, Preservation, Publicity, Security, Sorting Boxes, Tray Arrangement.

We will have sign-up sheets at the June membership meeting and hope many members will volunteer. Each committee has a chairman who knows what has to be done, but needs many hands to help with the task. This appeal goes to new members also. Working on the Exhibit is a lot of fun, and you get to know more of your fellow members.

## TRUFFLES AT LAKE WENATCHEE Brian S. Luther

Two very interesting species of fungi were found on the Lake Wenatchee field trip (May 7 & 8). One is a "False Truffle" and the other is "Cooper's Truffle". These fungi are rarely found by mushroom hunters because of their subterranean (hypogeous) habit. Occasionally, however, they do fruit partly or completely above ground. False truffles are Basidiomycetes in the order Hymenogastres, but true truffles are Ascomycetes. In the field they were labelled "Truffles" since a microscope was not available. Later, microscopic examination of the specimens revealed their identity. The false truffle turned out to be Gautieria graveolens Vittadini and was brought in by Monte & Hildegard Hendrickson. When cut in half, the sporocarp had a "brain-like" chambered appearance and a strong peculiar odor. Zeller & Dodge (Gautieria in North America, Ann.Mo.Bot.Garden 5:133-142. 1918.) who monographed the genus, describe the odor as "very strong, suggestive of decaying onions". Phylogenetically it is considered by some experts to be closely related to the Cortinariaceae. Smith & Smith (How to Know the Non-Gilled Fleshy Fungi, 1973) state that it has been found in great abundance in Idaho. It normally fruits in late Summer and Fall, but this Spring we have seen an unusually large number of what are normally Fall mushrooms. The spo-

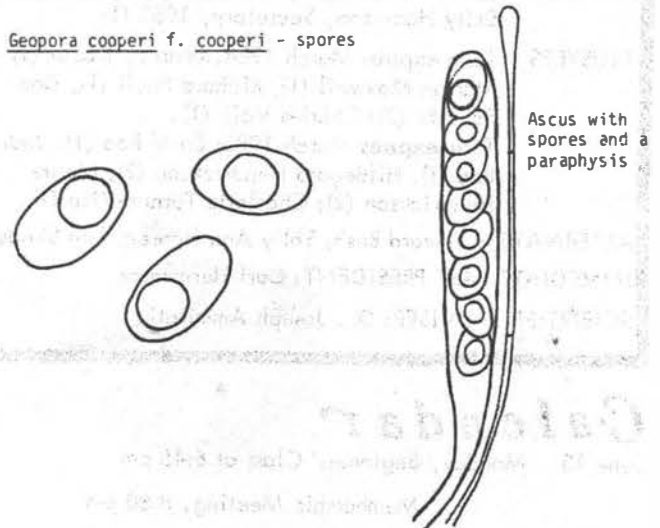
Gautieria graveolens - spores



res of this collection measured 15-20 x 9-11  $\mu$ m and were ellipsoid, brownish when mounted in KOH and had 8 to 10 pronounced longitudinal ridges. The edibility of this fungus is unknown and the strong odor is likely to discourage even the most adventuresome mycophagist.

The second collection is Geopora cooperi form cooperi which was given to me at the membership meeting the following Monday by Joy McKnight. Tylutki (Mushrooms of Idaho and the Pacific Northwest - Discomycetes, 1979) calls it "Cooper's Truffle". It actually is not a true truffle, although it is an Ascomycete just as true truffles are. Helen Gilkey (see publications below) considered it to be a true truffle, but it has been conclusively shown that it is actually in the order Pezizales, family Pyronemataceae. The fruiting body was brown and fuzzy on the outside and when cut, it also had a convoluted "brain-like" appearance. The spores were slight-

Geopora cooperi f. cooperi - spores



ly immature but measured 17.5-21 x 11-14  $\mu$ m and were ellipsoid, smooth, hyaline and uniguttulate. The edibility of this fungus is apparently unknown. For the conclusive identification of this fungus I consulted the following publications: Burdsall, H.H. 1968. A Revision of the genus Hydnocystis (Tuberales) and of the hypogeous species of Geopora (Pezizales). Mycologia 60(3):496-525. Gilkey, H.M. 1939. Tuberales in North America, Oregon State Monographs - Stud. Bot. 1:1-63. Gilkey, H.M. 1954 Tuberales. North American Flora II 1:1-29, 35-36. Trappe, J.M. 1979. The Orders, Families and Genera of Hypogeous Ascomycotina (Truffles and their relatives). Mycotaxon 9(1):297-340.

## CLASSICS GOING OUT OF PRINT

Dover Publications has announced that once the current stock is exhausted, many of their titles will be going out of print. Among these are One Thousand American Fungi by Charles McIlvaine and Robert MacAdam (code no. 22782-0; \$9.95) and The Romance of the Fungus World by R.T. & F.W. Rolfe (code no. 23105-4; \$5.00). To order, write directly to Dover, Publications, Inc., 180 Varick St., New York, NY 10014. Add 75¢ postage and handling on orders for one book; \$1.25 for two or more.



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IMMEDIATE PAST PRESIDENT: Carl Hermanson

SCIENTIFIC ADVISER: Dr. Joseph Ammirati

## Calendar

June 13 Monday, Beginners' Class at 6:45 pm

Membership Meeting, 8:00 pm

REMEMBER: No Membership Meetings in July and August  
Have a nice summer!

August 15 Monday, Board Meeting, 7:30 pm Monroe Ctr.

August 25 Deadline for Spore Prints Material. Send to the  
Editor, 2559 NE 96th, Seattle, WA 98115

September 12 Monday, Membership Meeting, 8:00 pm

Oct. 15 & 16 The 20th Annual Exhibit at the Monroe Center

### WELCOME TO THE FOLLOWING NEW MEMBERS

Lynn Capelle: 523-2101; Charles Gilmore: Bellingham; Bob  
Horne: 641-2650; Henry & Leni Lorrach: 644-2391; LeAnn  
Pauley: 725-6154; Vladimir & Maryann Swerchowsky: Fair-  
view Park, Ohio.



### SICK CALL CLARION

We wish continued recuperation to Kearney Kozai (from sur-  
gery), Mary Hochwalt (from a car accident) and Fay Melsen  
(from chemotherapy and radiation treatments).

# Membership Meeting

Monday, June 13, 1983, 8:00 pm in the auditorium of the  
MONROE CENTER, 1810 N.W. 65th Street, Seattle.

Program: Mitch McGuinness, a graduate student in Botany  
at the University of Washington, will comment on two very  
interesting films which will be shown: (1) Seifriz on Proto-  
plasm, and (2) David Hoskin's film on Slime Molds.  
Mitch has been a PSMS member since 1976, and has "inheri-  
ted" his interest in mycology from his uncle, Charles Volz.

### BOARD NEWS

H.R.H.

After President Grout called the last Board meeting of the  
spring to order, Treasurer Anderson presented the monthly  
cash flow report and said that PSMS is making sure its cor-  
porate, non-profit status is current with the State.

President Grout stated that he is getting the mushroom identi-  
fication class and a more advanced program organized. More  
somewhere else in this issue.

The Board was informed about the progress in establishing the  
Daniel E. Stuntz Memorial Foundation. Details in another  
section of this issue.

Judi Boa reported that she has news that the Clitocybe mono-  
graphs will be shipped soon, and also that the new edition of  
the popular mushroom book by Lange & Hora is now quoted at  
double the anticipated price. She is waiting for more informa-  
tion.

Charles Volz reported about the spring field trips. They are  
reviewed elsewhere.

Dennis Bowman, the General Chairman of the 1983 Exhibit  
attended the Board meeting and reported that the necessary  
tasks are done on a timely basis. We will use the same poster  
as last year. Most standing committees have chairmen, but  
most of them need a lot of volunteers.

### BOOKS

Judi Boa

The Mushroom Feast by Jane Grigson (memberprice \$11.20)  
as arrived and can be picked up at the June membership meet-  
ing. The Clitocybe Monograph has been ordered and those  
who have ordered a copy will be notified when the books  
arrive.

Judi will be on vacation sometime early in the summer, but  
if you need books later on, to get ready for the fall season,  
call her at 725-1235.

In regards to the new edition of the popular book by Lange &  
Hora there seems to be a much higher price in the offing that  
Judi is waiting for information. Those who have ordered this  
book will have to wait a while longer.

### PSMS IDENTIFICATION CLASS & CONTINUING EDU- CATION PROGRAM

Milton Grout

The foll beginners to intermediate identification class will  
start on Monday, September 19, 1983. Monday evening has  
proven to be the most convenient, since most members will  
be collecting over the week end, and the mushrooms are still  
fresh and in good condition for identification. The class will  
continue for seven or eight consecutive Mondays with the  
exception of the regular Monday membership meeting of  
PSMS. There will be a small charge for this class, probably  
about \$5.00 to cover the cost of renting a class room.  
Room 317 at the Monroe Center has been reserved. More de-  
tails will follow in September. (continued on page 3)

It has been difficult to visualize the structure of a continuing education program without getting into highly technical monographs or microscopic features. A plan has been formulated however, to utilize the expertise that has been developed by the Key Council. Many of the genera are fully explained and can be utilized to determine a broad cross section of Northwest fungi to species. The continuing education program would be structured around a number of individual keys, probably one full class to a key. Meetings would begin after the fall identification class is over. These meetings would be held the first Monday of the month. Since the format of the continuing education program is tentative at this time, all ideas or thoughts on structure or content would be most welcome. Any comments can be directed to Ed Bush, 776-9769 or Milt Grout 747-0497.

#### DANIEL E. STUNTZ MEMORIAL FOUNDATION

A committee chaired by Carl Hermanson (and consisting of Margaret Dilly, John Kunz and Hildegard Hendrickson) is working on the establishment of the Daniel E. Stuntz Memorial Foundation. The purpose of the Foundation is to continue the extensive mycological library accumulated by Dr. Stuntz, to support a graduate student in mycology, and to support other mycological interests.

In order to achieve a tax-deductible status, a non-profit corporation has to be set up, and then this non-profit organization has to file for tax-deductible status from the IRS. The committee is assisted by Ben Woo, Dr. Ammirati, Milton Grout, Charles Volz, Ferris Anderson, and Doug Raff, in order to get maximum expertise.

At this time the articles of incorporation and by-laws have been drafted, and will be reviewed one more time before submission to Olympia. Then the necessary documents will be filed with the IRS. The committee hopes to have accomplished most of the goals by fall.

#### FIELD TRIP TO OSTROM'S H.R.H.

Again the weather cooperated to make the field trip to the Ostrom Mushroom Farm in Olympia on April 30, 1983 a great success. Some 80 members and guests were greeted by Bill Porter, marketing manager, and Rod Sorensen, a professional grower. Each led a group through the plant, explaining the commercial growing of Agaricus bisporus and Shiitake. About 160,000 logs are in the Shiitake production.

There has been a commercial mushroom farm at the present site since the 1930's. Ostrom's moved there in 1967 from the Lake City area of Seattle. This year, the company does not use the old growing sheds any more, and they will be torn down when time and money is available. The current production is as mechanized as possible (except for the harvesting).

The production starts with the making of the growing compost. No more manure is used. In three weeks, from start to end, the company produces compost from straw to which cottonseed meal and ground feathers are added. After the compost is ready, it is pasteurized to rid it of the biological chemicals which are not desired. Then the compost is automatically filled into trays and the spawn is added. Ostrom produces some of the spawn and buys some. After two weeks the casing soil, consisting of peatmoss and lime is added (again by machines). And then it is just a matter of watering, changing the temperature and air pressure in the growing rooms until the first flush of button mushrooms appears. During most of this period, the trays were covered with sheets of clear plas-

tic to contain the moisture. I wondered what they did before these plastic sheets were available? Not long before the first flush is expected, the company drastically changes the air pressure (to fool the mushrooms for a while). And I think a home-grower of A. bisporus from a kit will not have much success, since he cannot change the air pressure in his home. I did not understand the total picture, but this changing of the air pressure has to do with strengthening the mycelium so it will produce a healthy crop.

After the tour, Ostrom's served us cookies and coffee while the members picked up the mushrooms they had ordered.

Some of us ended the outing with a picnic lunch on the lawn around Ostrom's. Due to the enthusiastic comments, we plan to schedule another tour next year!

#### SPRING FIELD TRIP REPORTS H.R.H.

This year we had an unusual spring. On the field trip to Lake Wenatchee State Park on May 7 & 8 one quickly got the feeling that it was just a bit early. Yet, in Seattle the winter was mild and spring early, that we forgot that the mountains had a very extensive snow cover, and it takes time for the snow to melt. However, the morels, mostly under the cotton-wood trees along the rivers and creeks, were prime, and a few Boletus edulis were collected from a very sunny location. Two different collections of false truffles were brought in and Brian Luther took them home to examine and study them under the microscope, and he will report on them separately. Brian expertly identified 43 species. Some of the species that showed are traditionally fruiting in the fall.

40 members and guests signed the register and 30 enjoyed the potluck, which was preceded by delicious hors d'oeuvres of pickled herring and smelt prepared by Margo Harrison and accompanied by delicacies plum wine made by Earl. There were showers all day, and since the shelter is quite small, we all huddled together, but the weather held until after dinner. Lyle and Joy McKnight were hosts for this trip. Charlie Volz even used his propane heater from the camper to stay warm while in camp.

Since it had rained a week prior to the field trip to Crystal Springs on May 14 & 15, all of us had great expectations. However, after one began the search through the woods, it became clear that the prime fruiting of the Verpa, morels and puffballs was over, and the Boletus edulis were not really showing yet.

Brian Luther expertly identified 52 species, including a rare Laccaria tortilis. Others were Pseudoplectania melaena, Melanoleuca vulgaris, Entoloma nidorosum, Thelephora palmata, Rhodocollybia maculata, Peziza praetervisa, and P. sylvestris. Tricholoma subannulatum was collected on all field trips this spring, and according to Charlie Volz it had not been found in Washington before. Also found were Sarcospora crassa & S. mexicana, Cudonia monticola, Caloscypha fulgens and white pine rust-Cronartium ribicola, and again fall species.

40 members and guests signed the register and 30 stayed for the potluck. This time the hors d'oeuvres included pickled chanterelles and coral accompanied by delicious cherry wine made by Carl Hermanson.

Brian Luther appreciated the use of Nettie Laycock's microscope which helped in the final, positive identification of a few specimens. Alice & Gilbert Austin were the hosts for this outing.

For the first time in many years, a second field trip was scheduled into roughly the same area. It was very interesting to see how long a given genus fruits, and what else may be showing two weeks later. Again we found the fruiting season of the morels practically over, and still only a very few Boletus edulis buttons were showing.

Brian Luther (who has been very much appreciated on the spring outings) again did identification, and thanks to Nettie Laycock, again could use the microscope. 37 species of fungi were identified and one species of lichen, as well as many flowering plants. One of the flowering plants brought in was the endangered Lewisia tweedyi. Several interesting species of fungi appeared, including Armillaria albobanaripes, Clitocybe odora (normally a fall mushroom), Tricholoma subannulatum, and a small unknown Cystoderma and a species of Sclerotinia.

Charlie Volz was the host for this trip. 38 members and guests signed the register and 30 stayed for the potluck. On this trip the hors d'oeuvres included pickled B. edulis and elderberry wine made by Edith Godar.

It should also be emphasized that when members bring pets to a field trip sight, they should keep them on a leash at all times. All camp grounds require it. Unfortunately, a dog and a cat tangled at this field trip, and in trying to separate them one owner's arms were severely scratched.

#### REMARKS ABOUT CLEAR LAKE - MEMORIAL DAY

With record temperatures all over the state (92° in Seattle, and 97 at Yakima) the mushrooms dry up, especially since it had been dry for some time. Since PSMS had not scheduled a field trip to Clear Lake since the year before Mt. Saint Helens' eruption (because the area received one of the heaviest ash falls) quite a few members attended. This area is very scenic and usually produced many edible fungi. Not so this year. Brian Luther went higher, to the snow line, and found a rare Mycena overholtsii, Plectania nannfeldtii, and Calvatia sculpta, a puffball with pronounced spines.

Reports say that very little of the ash is visible. Hopefully, next year the weather also will cooperate and we can collect at Clear Lake like "in the good old days".

#### MUSHROOM BOOKS FOR THE BEGINNER Jennie Schmitt

What is a good field guide? Which book should I buy? These are questions most often asked by our new members, when they look over the different books displayed by our booksales chairman, Judi Boa, at the membership meetings. The same questions are asked by members of other societies, and I have taken parts of the following article from Bob Burrells comments in the February, 1983 Ohio Spore Prints.

Selecting a Mushroom Field Guide just a few years ago was a simple task since there wasn't much to choose from. Kauffman, Graham, Smith, and Christensen were about it. But today's enthusiast is faced with a veritable plethora of illustrated manuals from which to choose, and making a choice may not be so easy. Miller revolutionized mushroom identification, and indeed, introduced many new people to mushrooms, particularly when the soft cover edition of his book was introduced. The emphasis was on identification of genera and the very well illustrated format was far superior to anything available. The next major advance in mushroom identification (for those willing to read instead of looking at pictures) came when David Largent's How To Identify Mushrooms series was

introduced. Again the emphasis was on how to recognize the different genera in a systematic approach, and Largent's lucid style enabled enthusiasts to learn faster than before.

Each year seems to introduce several new manuals, some merely repetitious and poor imitators of the others. But still a few unique ones continue to appear. David Arora's Mushrooms Demystified was the only book to appear that was authoritatively written, and with a lively sense of humor, which makes it perhaps the most widely read manual. Its regional approach to Western United States makes it useful to our area. The photos are not in color, but this makes one read about the mushrooms and thus learn something in the process.

The trend in manuals is to photograph mushrooms in color in their natural habitat. Staging is often necessary to make the photo good enough to show all of the diagnostic features. In the editorial process, cropping and loss of true color balance invariably occurs, thus further detracting from this method of reproduction. Often the pictures, although pretty, simply do not reflect the diagnostic features. Water color reproductions are by far the best way to depict mushrooms in color so as to show not only the true appearance of that species, but the artist is not hampered by the need to find just the right specimen to show that particular feature. The artist can simply paint it with that feature present. This type of illustration is not common in the U.S., but several European books feature this system. The Lange & Hora book is well known in our country and contains excellent reproductions. Roger Phillips Mushrooms of Great Britain has excellent scientific photos.

What all this says is that no one manual will have it all. Lincoff's book is a useful guide as are Smith's (all six of them) the Miller's, and many others, each in its own way. But it is hoped that there appear here in this discourse some useful tips in selecting a good book.

I will be reviewing these books, and others which PSMS has for sale to its members. The reviews will come in the fall. Also let me know, if there is a particular book you would like to have reviewed.

#### MORE MUSHROOM HUNTERS?

Sports Afield, May 1983, has several pages and pictures about mushrooms. It seems that hunters and fishermen, who are not all that successful, are turning to mushrooming.

#### MUSHROOM IDENTIFICATION WORKSHOPS

June 24, 25 & 26, 1983 there will be Workshops on Mushroom Identification I & II held at the Cispus Environmental Center. They are sponsored by the Department of Biology of Central Washington University, Ellensburg, WA 98926 (509-963-2731). David Hosford will be the instructor for the workshops. Participants can receive university credit. Deadline for registration is June 15. Dr. Hosford recently returned from a mycological expedition in the Amazon Basin and is currently doing research in the Mt. Saint Helens disaster area.

#### TOPIC OF THE BEGINNERS CLASS IN JUNE

The topic of the beginners class, June 13th at 6:45 pm will be a preview of the fall mushrooms which the new members can expect to find.

#### MUSHROOMS THAT GROW ON WOOD

is the title of a German book which Brian Luther will review in September. It is available from Lubrecht & Cramer for \$31.00. If interested you can place an order with Judi Boa.