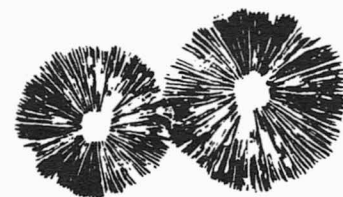


# SPORE PRINTS



BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY

Number 343

June 1998

## MACROLEPIOTA RACHODES DEMYSTIFIED

Dick Sieger



Summer is a good time to look for *Macrolepiota rachodes* in the urban areas of western Washington, and compost, gardens, and leaf litter are good places to look for it. It is a fine edible mushroom for most people and is frequently abundant.

*Macrolepiota rachodes*, also known as *Lepiota rachodes*, may appear any time throughout the year except during periods of hard frost.

They are large, shaggy mushrooms with brown caps from 4 to 8 inches across and stalks 4 to 8 inches long. They have a thick double ring that can be slid along the stalk. The base of the stalk is swollen. Flesh on parts of the mushroom, especially the base of the stalk, stain red, orange, or saffron when cut, and this staining may be seen when fresh, young gills are rubbed. The cap cuticle, or rind, tears as the mushroom grows and forms coarse brown scales on a white background. The spore print is white. The cooked mushroom has a good meaty flavor that is enjoyed by most people. However, more than a few people can't tolerate it, so the first tasting should be small; also, the mushrooms must always be thoroughly cooked. Be especially careful with *M. rachodes* collected outside the Pacific Northwest, which cause more trouble than ours,

and beware of poisonous *Amanita* species with a similar appearance. Young specimens of *Chlorophyllum molybdites*, not yet reported to grow in the Pacific Northwest, are poisonous and cannot be distinguished from young *M. rachodes* by field characteristics.

We have three varieties of *M. rachodes* in the Pacific Northwest: var. *bohemica*, var. *hortensis*, and var. *rachodes*. The spelling of the specific epithet of var. *hortensis* is unique. It was published as *rhacodes* and the other two were published as *rachodes*.

Varieties *bohemica* and *hortensis* are alike except for the base of the stalk. In var. *bohemica* it is swollen, while in var. *hortensis* it is a flat-topped bulb (marginate). This pair is decidedly different from var. *rachodes*. The stature of var. *rachodes* is stately; the others are robust. Variety *rachodes* is sylvan, growing in leaf litter; the others grow in rich cultivated soil or compost. The scales on the cap of var. *rachodes* are grayish olive-brown and become roughened like hemp rope with age. The scales on the other two are cinnamon-brown and smooth. There are microscopic differences, too. The spores of var. *rachodes* are broadly oval, and the sterile cells on the gill edges (cheilocystidia) are irregularly constricted (strangulated). The spores of the other two are oval, and the cheilocystidia are regular. Mushroom growers can cultivate var. *rachodes*, but the other two varieties are cultivated only with great difficulty. The following table shows the differences.

Characteristic	<i>Macrolepiota rachodes</i> var. <i>bohemica</i>	<i>Macrolepiota rhacodes</i> var. <i>hortensis</i>	<i>Macrolepiota rachodes</i> var. <i>rachodes</i>
Scales	smooth	smooth	coarsely fibrous
Cap colors	cinnamon-brown on a white background	cinnamon-brown on a white background	grayish olive-brown on a dingy background
Ratio of stipe length to cap diameter	stipe length equal to cap diameter	stipe length equal to cap diameter	stipe length 1½ times cap diameter
Stipe diameter	10–25 mm	10–25 mm	7–15 mm
Stipe base	swollen	marginate bulb	abrupt bulb
Habitat	compost, rich cultivated soil	compost, rich cultivated soil	leaf litter under deciduous trees
Cultures	seldom grows in cultures	not observed	can be grown in cultures
Spore profile	broadly oval	broadly oval	oval
Cheilocystidia shape	strangulated	strangulated	even
Spelling	<i>rachodes</i>	<i>rhacodes</i>	<i>rachodes</i>

## Spore Prints

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### PUGET SOUND MYCOLOGICAL SOCIETY

Center for Urban Horticulture, Box 354115  
University of Washington, Seattle, Washington 98195  
(206) 522-6031 <http://www.psms.org>

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

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## CALENDAR

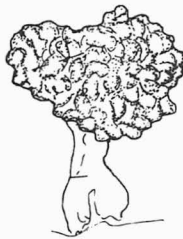
June 5,6	Field Trip, Bridge Creek
June 9	Membership Meeting, 7:30 PM, CUH
June 15	7:30 PM, Board Meeting, CUH Boardroom
July 20	7:30 PM, Board Meeting, CUH Boardroom
Aug. 17	7:30 PM, Board Meeting, CUH Boardroom
Aug. 21	<i>Spore Prints</i> Deadline
Sept. 8	Membership Meeting, 7:30 PM, CUH

## THEY WEREN'T MORELS

Michigan may consider itself the morel capital of the country, but some Michigan morel hunters are evidently more expert than others. Consider the following story reported May 1, 1998, by the UPI from Saginaw, Michigan.

Larry Gronski claimed he knew all about wild mushrooms. But when he picked two bags full of what he said were morels, his wife, Sylvia, wasn't so sure. She thought they looked funny and asked him not to eat them. He stubbornly swallowed 25 of them anyway. Sylvia's suspicions were right. The "morels" were really *Gyromitra esculenta*, a "false morel." Unlike in Washington State, where some people claim to have eaten *Gyromitra esculenta* for years without any trouble, the *Gyromitra esculenta* in Michigan are highly poisonous. Doctors at St. Luke's Hospital say Larry Gronski would have died if Sylvia hadn't gotten him to the hospital and insisted he receive medical treatment.

The Gronskis—both 59—spotted the inedible mushrooms while driving through the country. "They did smell good," Sylvia recalled, "but you can't go by the smell."



## MEMBERSHIP MEETING

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

Our guest speaker this month is Tom O'Dell, Forest Service regional mycologist for Washington and Oregon. He comes to us from the Forest Service Lab in Corvallis, Oregon (mycological center of the universe).

Dr. O'Dell will present a special collection of slides which represent the 200 mushroom species of greatest interest to the US Forest Service. Find out which mushrooms these are and why.

This will be our last membership meeting before the summer break. We'll meet again in September.

Would persons with last names beginning with the letters E-K, please bring refreshments for the social hour?

## MESSAGE FROM THE PRESIDENT

Doug Ward

Over the years, PSMS has supported a variety of endeavors with the purchase of special equipment. This has greatly enhanced our ability to push the science of mycology out a bit further and enhanced our ability to promote education in the community as well as for our members. Because we have not had a lot of room for the storage of this special equipment, members have agreed to store or use it in their homes. Unfortunately, our records of where this equipment is stored or who has borrowed it are not complete. If you have any PSMS-purchased equipment or supplies, I would greatly appreciate a note, phone message, or e-mail letting me know where it is. Your help in this effort will allow us to get and maintain a good inventory of our assets and utilize them to greater advantage.



## ROLLING IN CLOVER

Brad Bomanz

*Spores Illustrated*, Spring, 1998, via *Mycelium*, April-June 1998

You're walking along a beautiful lush green carpet of grass and suddenly your eye spots a bevy of beautiful prime meadow mushrooms. BEWARE!

The world of fungi is an integral part of our environment. The mycelium intertwines with many materials and derives its nourishment from its growing medium or substrate, whether it be soil, compost, bark mulch, etc. All fungi are a product of their environment and one must be cautious of the environment in which edible fungi are collected. Herbicides and pesticides are used in abundance by lawn care professionals. The chemical soups concocted by these lawn care professionals to keep these lawns lush and free of broadleaf vegetation, insects, nematodes, etc., contain significant amounts of chemicals that are toxic to humans. These lawn potions are applied by licensed individuals that are often required to wear personal protective gear to prevent acute and chronic health risks.

As a general rule, I recommend that when you find any fungi in a manicured lawn area, be it a cemetery, business complex, golf course, etc., survey the area to see if there are any broadleaf weeds growing. I personally look for clover. The absence of weeds and rough grasses may indicate the use of toxic chemicals, including various dioxins such as 2,4D and 2,4,5T chlordane or Silvex.

In these suspect areas, I pick fungi only for research purposes, not for consumption. It can be very tempting to use the edibles,

especially when you know what a wonderful meal you can prepare with these gifts of nature. You must, however, be a cautious collector and only select areas that appear to be natural settings with a variety of vegetative growth. Pregnant women, young children, and the elderly should demonstrate an additional level of caution due to their increased susceptibility. I wish all mycophiles good health and good hunting during mushroom season.

## BULLFROG FLATS FIELD TRIP

Doug Ward

The weather was nice and warm and the winds blew (but not a gale) when some 36 of us gathered at Bullfrog Flats on May 2. Although there were no facilities to speak of, we did have a screened tent shelter for the coffee, treats, and ID table. The identification duties were shared by Brandon Matheny and Sara Clark. Twenty-seven species of fungi were identified, including the welcome arrival of a couple of *Boletus edulis*. Among those identified, one of the most interesting was *Geopora cooperi*, a truffle-like Discomycetes that evolved into an underground fungus but still forcibly discharges its spores. There were a number of new members in attendance, and I can happily report that many of them found their first morels. We broke camp at about 3:30 PM with most everyone saying that they were looking forward to the Twenty-Nine Pines outing.



## TWENTY-NINE PINES FIELD TRIP

Sara Clark

Another day of dubious weather on May 9 again provided us with sunshine by afternoon at our foray site, which was generously provided by Ron and Patricia Pyeatt at their cozy cabin not far from the devastated Twenty-Nine Pines Forest Camp. Many thanks to the Pyeatts. Also thanks to Doug and Theresa Ward for hosting. Only about ten species were identified by Sara Clark, but pleasantly those included morels found by several of the thirty participants. Small morels are showing at higher elevations, so perhaps the rain this week will moisten the eastern slopes and keep the morels coming.



## MUSHROOM ASTROLOGY

Bob Lehman, LAMS

Gemini (May 21 – June 20): You enjoy the mental challenge of figuring out when and where mushrooms are going to fruit—making calculations about rainfall, temperature, humidity, season, mycelial activity, and fruiting patterns.



Having made your calculations you may get distracted by some other interest and never actually do any mushroom hunting, but you can check out your calculations later by asking what other people found. You are good at mushroom identification, which is like a game to you, and you like taxonomy—especially all the name changes that drive other people crazy.

## CERTIFICATE OF ACHIEVEMENT

At the May membership meeting, Dr. David Pilz of the USDA Forest Service presented PSMS with a Certificate of Achievement in recognition of PSMS volunteers who helped with the Man in the Biosphere Program chanterelle study on the Olympic Peninsula. Volunteers consisted of Ron Post (coordinator), Alice Austin, Gilbert Austin, Marsi DiGiovanni, Chris Greenlee, Irwin Kleinman, Cecilia Lee, Mike Lovelady, Francis McGuire, Ingeborg McGuire, Russ Parker, Bernice Velategui, Patricia Williams, and Anne Zimmerman.

## THE TRUE GURU

Harley E. Barnhart

*Spores & Stipes*, North Idaho Mycological Association

A mushroomer went to a guru and sought  
Gems of wisdom as to what he ought  
To prepare for the table, when he was able,  
And what, out of wisdom, he ought not.

The guru emerged from a trance-like state  
(Induced by a fungus he often ate)  
And delivered these words I repeat to you.  
If they prove not true, sue the guru!

"First, of course, from amanitas abstain  
"Some will lead you to perish in pain.  
"You might try a *caesarea* or a *coccoli*,  
"But if they do you in, don't blame me!"

"Beware also the little brown things,  
"Especially those whose stems sport rings.  
"And mind you stay clear of lepiotas small,  
"And I wouldn't consume any cort at all."

"You can eat some boletes that stain a deep blue,  
"But I'd know just which ones if I were you.  
"The *Chlorophyllum* is best passed by.  
"It will only make you wish you could die."

"Beware of the peppery russulas and *Lactarius*,  
"And *G. esculenta*, even more nefarious.  
"And although *Agaricus* is often delicious,  
"Some are not, and you'd best know which is."

"Now hold it, guru!" the mushroomer swore.  
"I'm not sure I can take any more.  
"Your puns are atrocious, and what's even worse,  
"You've left me few choices without some curse.

"Isn't there one simple test to be had  
"That will separate the good from the bad?"  
"Of course!", said the guru, "It is just so!  
"And I think it's a secret that you should know."

"Watch what squirrels and rabbits eat,  
"And toss those species out in the street.  
"But follow a guru back to his lair,  
"And whatever he eats, you can try if you dare."

With that the guru took a generous munch  
Of a nice *phalloides* he had saved for lunch.  
"These are not," he said, "to everyone's taste,  
"But I do hate to see them go to waste."

Now, a guru would never lie, you see,  
But they have different stomachs from you and me.  
And it's perhaps safer to trust a good field guide  
(Writ by some guru who hasn't died).

**MUSHROOM PICKER BUSTED** *Mycena News,*  
via *The Sport Print*, LA Myco. Soc., May 1998

In February 1998, Grover DeMarinis, son of Paul DeMarinis, a former member of the Mycological Society of San Francisco (MSSF), was picking chanterelles in an East Bay regional park. Hiding nearby in the bushes, a park ranger was staked out to bust mushroom pickers. The ranger busted young Mr. DeMarinis and gave him a ticket to the tune of \$675. That's no typo: \$675.

Grover went before the Oakland municipal court three times. He was assigned a public defender. He still hadn't had a chance to enter his plea of not guilty. If convicted, he would have had a criminal record—a criminal mushroom picker.

Finally, on March 25, Grover got his say in court. "We showed up for court at 9 AM last Wednesday," Paul DeMarinis wrote the MSSF *Mycena News*. "After sitting through an hour of other cases—in Oakland these were mostly substance abuse, parole violations, etc.—Grover was called up before the judge, who read his charges as 'picking plants in the park.' A titter went over the motley audience of urban dope fiends and bail jumpers. When the exact charge 'mushrooms' was read, our unwilling audience roared with laughter. Even the judge couldn't keep a straight face. He dismissed the charges 'in the interest of justice' and admonished Grover on the dangers of eating wild plants."

**SOUVENIR MUSHROOM CONDOMS?**

The Associated Press reports that the Bakovsky rubber factory in the town of Odintsovo near Moscow is manufacturing a line of painted souvenir condoms. This is a enormous social change since the Soviet regime, when condoms were referred to euphemistically as "product number two."

According to the Russian newspaper *Argumenty i Fakty*, the new line features condoms shaped like mushrooms, animals, and even tea kettles. The factory uses only natural dyes, and all of its souvenir condoms are hand painted. The report did not say whether the oddly shaped condoms were intended for actual use.

**MOREL AND ASPARAGUS FETTUCCHINE**  
*Mushroomers, Oregon Myco. Soc.*  
Adapted from *Fresh From France Vegetable Creations*  
by Faye Levy

- |   |  |
|---|--|
| 1 C fresh morels, chopped<br>into 1-inch pieces | 1/2 C dry white wine                     |
| 1/2 lb thin asparagus                           | Salt                                     |
| 1/4 C butter                                    | Freshly ground pepper                    |
| 4 tsp minced shallots                           | 1 C heavy cream                          |
| 1/2 C vegetable or<br>chicken stock             | 8 oz. fresh fettuccine or<br>6 oz. dried |

Sauté morels in 1 TBs butter for 10 minutes over low heat. Remove asparagus tips and cut stalks into 1-inch pieces, discarding thick, white bases. Refrigerate 2 TBs butter.

In a saucepan, melt 1 TBs butter over low heat. Add shallots, and cook about 2 minutes or until softened. Pour in wine and bring to a boil, stirring. Add stock, morels, salt, and pepper to taste. Bring to a boil; reduce liquid to about 3/4 C. Stir in cream and bring mixture to a boil. Simmer, stirring occasionally, over medium heat for 7 minutes or until mixture is thick enough to coat a spoon. (The sauce can be kept, covered, 1 day in the refrigerator.)

In a saucepan of boiling salted water, cook asparagus for 2 minutes. Drain, rinse under cold water, and drain thoroughly. In a skillet over medium-low heat, melt 1 TBs butter, add asparagus, salt, and pepper to taste and sauté for 2 minutes or until tender. Reserve some tips for garnish. In a large pan of boiling salted water, cook pasta over high heat, stirring occasionally, about 3 minutes for fresh pasta or 7 minutes for dried, or until it is *al dente*, and drain well. Transfer to a bowl. While pasta is cooking, reheat sauce over medium heat, stirring. Add 2 TBs cold butter to sauce and stir over low heat just until blended. Taste and adjust seasoning.

To serve, toss pasta with sauce and asparagus and transfer to a heated platter. Garnish edge with reserved asparagus tips.

*This will be the last Spore Prints until September.  
Have a nice summer!*



**Puget Sound Mycological Society**  
Center for Urban Horticulture  
Box 354115, University of Washington  
Seattle, Washington 98195

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