SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY
Number 346 November 1998

MUSHROOM WALK, NOVEMBER 14 Brian Luther

Brian Luther, Identification Chair

I will be leading a Mushroom Nature Walk in Seward Park on Lake Washington on Saturday, November 14, from noon to 2:00 PM or 3:00 PM or so. Meet at the UPPER main parking lot at noon. Bring your favorite mushroom book, a collecting basket or bucket, a knife, wax paper or foil to wrap specimens in, and a lunch or snacks and drinks. Wear warm clothes (bring raingear and rubber boots just in case you need them). Hot coffee and cookies/goodies will be provided.

This is an educational trip intended to expose you to and introduce the great variety of different kinds of fungi. The park has many different habitats, including conifer woods, broadleaf woods, mixed woods, open grassy areas, etc., so we're bound to find lots of different mushrooms. After everyone has had a chance to go collecting, we'll assemble around some picnic tables and look at what we found.

Newcomers who signed up at the annual Wild Mushroom Exhibit are especially welcome.

Directions: From Seattle, take I-5 to I-90, get off at exit 3 (west side of Lake Washington), go south on Rainier Ave S. about 3 miles, and take a left onto S. Orcas St., heading east. South Orcas Street ends at Seward Park after intersecting Lake Washington Blvd. S. Once in the park, proceed up the hill to the upper main parking lot.

ELSIE NEEDS SHAGGY MANES Joanne Young

Elsie Burkman is asking for help from PSMS. She had someone over to her house to assist her with cleaning, and the person "cleaned out" all Elsie's jars of *Coprinus comatus* ink, which Elsie uses for her paintings. Elsie is completely out of ink, including some she had saved from her time in the Yukon.

She asked that anybody who finds shaggy manes save them for her. She'd also like the ones that we display at the show. If you find some, keep them in a jar in the refrigerator.

PSMS artist Elsie Burkman

Elsie's phone number in the new roster is incorrect. Her number is (206) 282-6723. Thanks for your help.

BREATHE EASY Andy Coghlan

New Scientist, 19 September 1998

The British textile company Courtaulds has developed a novel bedding material that contains substances harmless to humans but lethal to the house dust mite, *Dermatophagoides pteronyssinus*, which lives in bedding and whose feces can trigger asthma. What makes the new material so unusual is that it attacks the fungi on which the mites depend, not the mites themselves.

The method was discovered by David Service and colleagues at Courtaulds in conjunction with John Maunder and David Thompson of the University of Cambridge and Trevor Cartlidge of Nottingham Trent University. In experiments on a simulated bed, strewn with fragments of human skin and infested with mites, the investigators discovered that the creatures cannot survive without the help of a fungus which they carry around on their bodies.

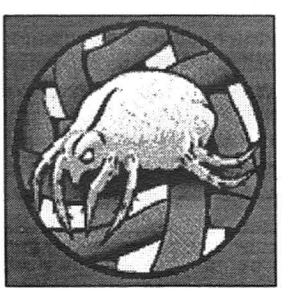
The fungus, *Aspergillus repens*, pre-digests the flakes of human skin into a form which the mites can eat. Without this pre-treatment, the skin is indigestible to the mites. "It's like us trying to eat wood," says Service, the head of the project and the research manager at Courtaulds.

The researchers reasoned that the mites would die out if the fungus could be destroyed. So they spiked cotton and other bedding fabrics with a fungicide, similar to the one used in athlete's foot treatments, that is lethal to *A. repens*. The fungicide is incorporated into the cores of bedding fibers as they are spun, from where it migrates slowly to the fiber surface. "It's a slow-release mechanism and can't be washed out," says Service. Service says that the substances added to the sheets are unlikely to trigger allergies. "You can eat them," he says. "You're more likely to develop an allergy to cotton."

The company is keeping the identity of the fungicide a secret and has waited for patent applications to be granted before disclosing this new approach.

"It's good news if it works," says a spokeswoman for Britain's National Asthma Campaign, though she warns that for maximum effect, curtains, toys, and carpets would need to be treated too.

The bedding materials, which include sheets, duvets, pillows, mattresses and covers, are also impregnated with triclosan, a compound that kills the bacteria that make underclothes and socks smell. Courtaulds last year launched sports socks and underwear incorporating the same antibacterial substance. Marketed by the sportswear firms Reebok and Berghaus, the items are said to have sold well



Courtaulds is already selling the bedding materials in Britain through the Textile World chain and hopes to sign up other major retailers.

The trouble with political jokes is that they get elected.

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PUGET SOUND MYCOLOGICAL SOCIETY

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Annual dues $20; full-time students $15

CALENDAR

Nov. 7	Annual Exhibit, CUH, 12:00–8:00 PM
Nov. 8	Annual Exhibit, CUH, 10:00 AM–6:00 PM
Nov. 10	Membership meeting, 7:30 PM, CUH
Nov. 14	Brian Luther's mushroom walk, noon, Seward Park
Nov. 16	Board meeting, 7:30 PM, CUH Board Room
Nov. 20	*Spore Prints* deadline
Dec. 8	Membership meeting, 7:30 PM, CUH

BASIC ID CLASS

Lisa Bellefond

I would like to thank everyone involved in making the Basic ID class a fun and educational experience. PSMS is fortunate to have dedicated teachers like Patrice Benson, Coleman Leuthy, and Dick Sieger. Sara Clark and Brian Luther deserve thanks for making the Twanoh field trip a success. Also, for all the students, thank you for attending the classes and displaying an enthusiasm for fungi identification.

DON'T TRASH THE MANZANITA

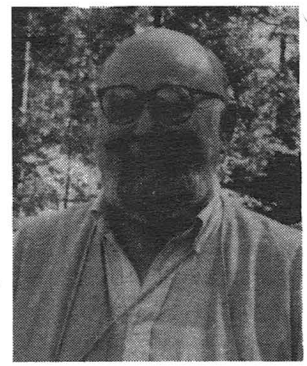
The patch of manzanita shrubs was just a nuisance to the owners of forest land near Ashland, Oregon. They enlisted the help of local ecologists to clear the 3-to-6-foot-high shrubs, which can help fuel forest fires.

They were going to trash them until one of the ecologists, Melissa Borsting, learned from a friend in academe that a Japanese pharmaceutical company wanted to buy 3,000 pounds of dried manzanita leaves, which can be used as a natural sun screen.

Borsting recently told her tale at a congressional hearing where critics questioned whether the U.S. Forest Service, focused for decades on logging trees, realizes the value of herbs, mushrooms, and other products that can be harvested from national forests.

MEMBERSHIP MEETING

Tuesday, November 10, at 7:30 PM at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle.



Our distinguished speaker this month is the renown truffle expert Dr. James M. Trappe. His talk is entitled "Truffles, Dogs and Wine: Truffling in Italy, France, and Spain."

Dr. Trappe has amazed and delighted PSMS audiences in the past, with lectures on the role of fungi in ecosystems, and on his discoveries of the complex interaction between truffles and flying squirrels.

Dr. Trappe is professor of Forest Science, Botany-Plant Pathology, at Oregon State University in Corvallis. His specialties are hypogeous fungi, below ground ecosystems, mycorrhizal ecology, evolution, physiology, and fungal/animal interactions.

Truffles have recently become a hot topic, and our meeting comes just one week after Seattle's first annual "Truffle Festival" (November 2, at the Four Season's Hotel). Come and hear about these fascinating fungi from the leading expert.

Members with last names beginning with the letters A–G are requested to bring a plate of refreshments for the social hour.

PINE MUSHROOMS IN JAPAN

Jean Johnson

Fungifama, S. Vancouver Is. Myco. Soc., October 1998

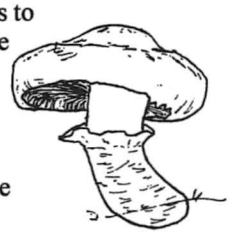
Abbreviated from "Ecology and Management of the Commercially Harvested American Matsutake Mushroom," by D. Hosford, D. Pilz, R Molina, and M. Amaranthus, Gen. Tech. Rept PNW-GTR412, USDA Forest Service, Pacific Northwest Research Station, Portland, Oregon, 1997, 68 pp.

Pine mushrooms, matsutake, were once widespread and common in mixed pine forests of Japan from Hokkaido in the north to Kyushu in the south. After World War II, they became increasingly scarce, in spite of efforts to enhance their productivity in local forests. By 1981, productivity had declined to one-tenth of the pre-War levels, and imports of Japanese matsutake, especially from South Korea, increased greatly to meet demand.

Since 1905, the matsutake forests of Japan have been plagued by the pine nematode *(Bursaphelenchus lignicolus)*. The nematode is transmitted to living pines by the Japanese pine sawyer *(Monochamus alternatus)*, a longhorn beetle. Invasion of vascular tissue by the nematode results in wilt and rapid death. Most host pines of matsutake, including the Japanese black and red pines *(Pinus thurbergii* and *P. densiflora)*, are very susceptible to this devastating pathogen. Since the introduction of the nematode at the start of the 20th century on the southern island of Kyushu, it has steadily spread northeastward. The current blight is the fourth in a series of epidemics since 1905. The third epidemic lasted a decade, peaked in 1979, and caused an estimated loss of 2.4 million cubic meters of pine wood. The current epidemic began in 1990 and killed enough trees in one year to build 50,000 houses.

Recent reports indicate that the disease has also spread to forests of Okinawa, Taiwan, South Korea, North Korea, and China. A combination of climatic, socioeconomic, and biological factors

in Japan tends to increase the magnitude of the blight. Pine mortality from the nematode often increases after prolonged drought and high temperatures, which weaken the resistance of the pines to the parasite. Although the Japanese have developed many silvicultural strategies to manage matsutake forests, matsutake production has disappeared from the vast stretches of mountain pine forests that die each year. Indeed, Japan's temples and public parks may eventually become the last refuge for matsutake pine forests, as suggested by a respected Kyoto gardener, Mr. Shiro Nakane (c. 1992): "To me, this already seems to be the case. When I was a kid, I'd walk on the paths right up there and gather matsutake from many, many red pines. Now I sometimes go up to the mountain with my two boys and my dog, but the forest there has changed. The trees I remember are gone. Still, different trees are appearing, and maybe this is nature's way."



"Like all the most successful marriages, mushrooms and bacon bring out the best in each other." —Tory peer Lord Deedes.

TWANOH FIELD TRIP

Lisa Belafond

Members of the Basic ID class descended on Twanoh State Park eager to search for fungi. This was the class field trip where students could look at and compare mushrooms. While everyone didn't bring home *Cantharellus* sp. or *Sparassis crispa*, they did learn a whole lot. Many students were successful in using dichotomous keys—thanks to Brian Luther and Sara Clark. Sara graciously explained characteristics such as pores, spines, and tube layers. Brian wowed everyone, including long-time members, with a talk about the microscopic features of fungi. He also demonstrated the art of microscopy. Everyone lined up and peered through Brian's microscope to see ornamented spores, basidia, and some lovely asci. Many thanks go out to hosts Doug and Theresa Ward and all the students who made this a fun field trip.

Sixty species of fungi were identified and displayed, with another table full of specimens that we didn't have time to get to. Interesting finds included *Baeospora myriadophylla, Collybia peronata*, and *Astraeus pteridis*. There was a noticeable lack of *Cortinarius* and *Russula* species.

AMERICAN RIVER FIELD TRIP

Irwin Kleinman

After a long spell of no rain, it rained in the target area all day Friday, September 25. Saturday was clear and crisp, and a small group of eager foragers departed for the deep woods. A fair supply of white chanterelles (*C. subalbidus*) was found by some who scoured the damp sections of the forest. Others looked in old faithful mushroom beds and found few if any mushrooms. The Friday rain had not worked its magic by Saturday, but by Sunday some new white specimens were found. The foray was poorly attended. Only 24 members signed in, and 13 stayed for the ample potluck. The weekend weather was wonderful, and the trip would have been worth it if not one mushroom were found.

Identifier Brian Luther reports that only 20 species were displayed. Nothing was found in abundance, but a nice collection of the "Train Wrecker" (*Lentinus lepideus*) was brought in. Interesting finds included *Albatrellus dispansus*, *A. confluens*, and *Climacocystis borealis*, all of which are polypores.

PHOTOGRAPHING MUSHROOMS

Bryce Kendrick

Fungifama, S. Vancouver Is. Myco. Soc., October 1998

Taylor Lockwood uses several electronic flash units to take his magical pictures. He also has an extra ingredient, called artistic talent, that many of us lack. But many people's mushroom pictures are much worse than they need to be. I am not an expert, but I am going to stick my neck out and pass on a few hints that may help some of you to get better pictures, even if you don't have multiple flash units or Van Gogh genes.

(1) Use a camera that can focus down to within a few inches of an object, if possible. Use close-up lenses if necessary.

(2) Use a camera with a viewfinder that shows exactly what the lens sees (a single-lens reflex is best).

(3) Make sure your camera measures exposure accurately. (You may need to run a trial film through the camera to check this—don't neglect to do this, because it may be the best investment you ever made.)

(4) Use a fast film (ASA 400 and 800 films are now widely available).

(5) Use a tripod if at all possible. If not, try to stabilize the camera by bracing your arms against a tree, or even the ground. (Don't be afraid to lie down to take pictures of mushrooms!)

(6) Stop down to f/16 or f/22 if possible (or at least f/11). This will give you good depth of focus.

(7) Get as *close* to the fungus as possible—make it fill the viewfinder. Most people take pictures far too far from their subject. (This is probably my most important hint!)

(8) Bracket exposures. If it's something you really want a good picture of, be prepared to take several pictures from different angles and at different exposures, a stop more and a stop less than the meter indicates (many cameras have a manual override feature that lets you do this). Taylor takes many pictures of each mushroom!

(9) Have your film processed by a reliable company. Don't go for the cheapest price unless you are convinced they do a good job.

LATIN LESSON: Common Latin Color Names

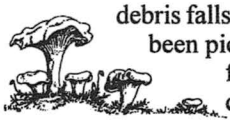
NATS Current News
North Am. Truffling Soc.

ALBUS	White
ALBIDUS	Whitish
ATER, ATRO, ATRATUS	Black
AUREUS	Golden yellow
BADIUS	Chestnut brown
CAERULEUS	Blue
CANDIDUS	Pure white
CINEREUS	Ash gray
CINNAMOMEUS	Cinnamon
CITRINUS	Lemon colored
FERRUGINEUS	Rust colored
FLAVUS, FLAVIDUS	Pale yellow
FULVUS	Dull yellow, with a mixture of gray and brown
FUSCUS	Grayish or blackish brown
LATERITIUS	Brick colored
LILACINUS	Lilac
LUEOLUS	Pale yellow

Cont. on page 4

CLEANING CHANTERELLES

Dan Daniell, president of the Olympic Peninsula Mycological Society, has an easy and effective way to clean chanterelles. He tosses them in a wire colander with 1/8-inch mesh until all the debris falls through. The chanterelles he showed us had been picked during dry weather and they were perfectly cleaned. Wet chanterelles, he says, clean almost as well.



CHANTERELLE PUMPKIN SOUP — Martin Black

1-1/2 lbs. Chanterelles, chopped
1-1/4 lbs. Pumpkin, seeded, peeled, and chopped
or 1 large can unsweetened pumpkin
1 large Leek, chopped (use white part only)
6 oz. Potato, peeled and chopped
4 cloves of Garlic, chopped
1 Tbs. fresh Thyme, chopped
1/4 cup Balsamic Vinegar
1/2 cup dry Sherry
3–4 cups Chicken Stock
1-1/2 cups Whipping Cream
2 oz. Olive Oil
1/4 cup fresh Chives, snipped
Pinch fresh Nutmeg, grated
Juice of 1 Lemon

In large, heavy bottom saucepan sauté chopped leeks in olive oil. Add mushrooms and sauté until they release their juices. Add sherry and reduce. Add potato, pumpkin, and stock. Lower heat. Cover and simmer 30 minutes until pumpkin and potato are tender. Puree soup in a blender until smooth. Return to saucepan and simmer. Stir in balsamic vinegar, lemon, nutmeg, and cream. Cook over low heat 5–10 minutes. Serve in warm bowls garnished with fresh chives or a hollowed, lightly baked pumpkin garnished with fresh chives. Serves 8–10.

Latin Color Names, *cont. from page 3*

LUTEUS	Yellow
MURINUS	Mouse colored, gray with a touch of red
NIGER	Black
OCHRACEUS	Ochre; yellow with a touch of brown
PURPUREUS	Purple
ROSEUS	Rose colored
RUBER	Red
SANGUINEUS	Dull dark brownish red
STRAMINEUS	Straw colored
UMBRINUS	Umber, deep brown
VIOLACEUS	Violet
VIREN, VIRIDUS	Green

MUSHROOM MISSIONARIES

Patrice Benson and Dick Sieger taught an all-day beginners' mushroom class in Chimacum for 45 people from the Olympic Peninsula Mycological Society on September 19.

MUSHROOM ASTROLOGY — Bob Lehman, LAMS

Sagittarius (Nov. 22 – Dec. 21): You love the sport and adventure of mushroom hunting—any concrete benefits being of secondary importance. You think in terms of expeditions, and you wax eloquent about the noble quest for earthly treasure. You love forays, and you love to share your exuberance and your mushroom theories with fellow mushroomers. You like taxonomy, but tend to gloss over the details of identification in order to focus on the bigger picture of evolutionary relationships. Before eating anything, you would do well to check your identifications with a Gemini or a Virgo.

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