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THE NEWSLETTER OF THE WISCONSIN MYCOLOGICAL SOCIETY

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- 1 MESSAGE FROM THE PRESIDENT by
- 2 UPCOMING WMS EVENTS
- 3 WINTER MEETING RECAP by Colleen Vachuska
- 4 MAY MOREL MADNESS "Five Courses of Fabulous Fungus!" reviewed by Mandy Meyer
- 5 WMS MOREL FORAY by Dan Czederpiltz
- 6 INDIAN LAKE COUNTY PARK FORAY by Peter Vachuska
- 7 MYCOBRIEFS by Colleen Vachuska
- 8 STRIATE, SULCATE, PLICATE, AND PELLUCID by Steve Nelsen
- 9 RECIPE: MUSHROOMS IN SOUR CREAM by John S. Komosa

MESSAGE FROM THE PRESIDENT

It is time to play taps; this fungal footsoldier's day is done; the next Message from the President will not be from me. I want to thank everyone for their support and input; this job would not have been the same without you. I usually do not get into thanking individuals, for fear of forgetting someone, but without these three individuals WMS and I would not have survived the past three years. First my good friend John Fetzner who picked up the ball when I dropped it and handed it to me when I needed to carry it, the perfect secretary/treasurer. The other two would be Peter and Colleen Vachuska, who do all the computer work, maintain the newsletter at such a high level year after year, keep the species list updated, lead forays, lead me and many more hats, thanks.

On to the fungi: this could be one of those summers to remember for collecting them. For those who brave the insects, the freezers and pantries could be replenished. I have heard of rainfall from 10 to 18 inches in the last month. If this does not produce a crop of chanterelles and boletes nothing will.

Well I need to go, hope to see everybody at the picnic.

Your soon to be ex-president,
John Steinke

UPCOMING WMS EVENTS

- June 26 (Saturday) The Wisconsin Mycological Society's Annual Business Meeting and Picnic -- Papa Steinke's Greenhouse & Farm. It starts at 4:00 with dinner at 5:00 and the Annual Meeting at 7:00 pm.
- July 24 (Saturday) -- The Summer Foray led by John Steinke, 9:30 am.
- August 28 (Saturday) -- 2004 Annual Photo Foray led by Chuck Fonaas at the Scuppernon Springs Nature Trail (note different location), 10 am.

September 11 (Saturday) -- Bristol Woods County Park Foray led by Dave Menke.
September 18 (Saturday) -- Monches Woods Foray led by Bill Blank.
September 25 (Saturday) -- Sami Saad Memorial Foray -- Mauthe Lake
Recreational Area led by Martin Sendera.
October 2 (Saturday) -- Fred Hainer--Tula Erskine Memorial Foray -- Point
Beach State Forest led by Chuck Soden.
October 9 (Saturday) -- Illinois Foray led by Beth Jarvis.

Members should have received announcements for the first three events and will receive announcements for the remaining forays.

WINTER MEETING RECAP

by Colleen Vachuska

The WMS had a great series of lectures this past winter into spring. It all kicked off with our annual slide show/wine-cheese mixer on Jan. 21. This is always a fun, well-attended event. The food and wine and fellowship are great; the only thing that would make the event better is a few more members showing slides. (Those of you that take slides: keep that in mind for next year.) On Feb. 18, Hal Burdsall talked about his travels to Alaska in the name of mycological research. Hal is retired from the Forest Products Lab in Madison, and is now doing consulting. I envy Hal -- It seems marvelous to be able to work and travel at the same time! On March 23, we expected to have Darrell Cox continue his talk on morels from last year. But a death in his family prevented his being with us. Fortunately, Alan Parker ably filled Darrell's shoes to get us all primed for the spring mushroom season. Finally, on April 20, Greg Mueller came and talked to us about global comparisons of mushroom biota, particularly between China, Costa Rica, and the U.S. Dr. Mueller, of the Field Museum in Chicago, came up to Milwaukee in a pouring rain to tell us about his interesting research. We are grateful to all of our speakers for sharing their expertise with us.

MAY MOREL MADNESS

"Five Courses of Fabulous Fungus!" reviewed by Mandy Meyer

The Wisconsin Mycological Society has celebrated many a May Mushroom Madness specialty dinner at Heaven City Restaurant and this year's Five Courses of Fabulous Fungus on May 10th was another fresh and delectable dining experience. As a member for many years, having Chefs Scott McGlinchey and Thomas Peschong from the Riversite excited in these culinary mushroom masterpieces year after year is worth the price of admission in itself. Slainte' to ya lads!

As our mushroom trip begins, we find ourselves on a fine May day with the first of the lilacs blooming, while before us are hand-passed nibbles of champignon slices topped with rolled Scottish salmon and drizzled with aromatic white truffle oil. We also sampled white mushroom caps with crab stuffing. Both tastes were nice and light, just enough to get you anticipating more Mushroom Madness.

The first course offered us was a spring tart of asparagus, Vidalia onions and oyster mushrooms with melted Swiss Gruyere cheese. Fortunately for us, one of the best cheesemakers from Switzerland is located in Monroe, and Bruno makes award winning products for Roth Kaese, with this Grand Cru Gruyere as the jewel in their crown! If ever in that area, be sure to stop at their retail shop Alp & Dell for many other crafted cheeses (including Raclette). This mouth-watering tart was once again augmented with a dash of white truffle oil. Can there be such a thing as too much truffle oil? - I don't think so! Chef Scott paired this up with a nice creamy 2002 Frei Brothers Chardonnay from the Russian River Valley with an acidity and aroma that went well with the up front aromas of the truffle oil and the lingering aroma of the asparagus (no, not that lingering).

The second course featured an empanada stuffed with shiitakes and chevre on a tingly salsa verde. The bright zest from the cilantro made your mouth come alive while the earthy flavors of the mushrooms and creamy goat cheese went wonderfully with the terroir (or earthy) characteristics from the southeastern Australian 2002 McWilliams Hanwood Estate Shiraz. About empanadas, it's interesting to know that every culture has their own name for the "stuffed dough pocket in which you put left-overs". The Italians have the calzone, the Jewish have the knish, the Cornish have the pasty, and as Chef Scott stated: "When we had us a Polack working here (Leroy Ciombor), we made pierogies, now that we have Armando, they're empanadas".

It's such a treat to have a traditional Caesar salad with homemade anchovy garlic dressing, and an extra bonus to have it topped with wood grilled shrimp and a marinated portabella. Crispy and creamy would be the way to describe this third course as well as the 2002 Ecco Domani Pinot Grigio that accompanied it.

On to the fourth course, what a way to showcase the season's first morels! Chef Scott rolled pork tenderloins and stuffed them with a mushroom duxelle or rough chopped paste, cooked them for 2 hours, placed them on a crimini risotto and let them dance in a very basic morel cream sauce. Too many times these luscious mushrooms that we yearn for all spring get over-powered with spice or sauce, and as they say, "If it ain't broke...". Another easy decision is to pair these flavors with a wine just made for mushrooms -- pinot noir. The 2002 MacMurray Ranch (yes, this IS from Fred MacMurray's vineyard) from the Sonoma Coast was well balanced and fun. This earthy cellar wine is a natural, so y'all make sure you get a stash of pinot in your house in case of "mushroom emergencies" -- we all know that those can occur!

So many of you WMS members have been coming to these fungi filled feeding frenzies for some years now, and the mental volley occurs on whether to bring back a favorite dessert that people ask for all year -- the mushroom ice-cream, or to keep the creative juices flowing and invent something new (not an easy quest to incorporate mushrooms into something sweet!). And then, like something from the movie Fantasia, these cute little (and big) mushrooms

seemed to dance across the dessert plate, skating on a deep puddle of raspberry sauce. Chef Scott's clever use of mushroom powder* from dried stems lets him sneak it into just about anything, but this in the meringue combined with a hint of cinnamon and French Vahlrona chocolate in the mousse made it a light yet flavor packed ending to a filling meal. (*You also can use mushroom powder in place of your flour dredge when sauteing meats or fish to give them that extra flavor!) Chef Scott also treated us to a non-vintage Australian port from his personal collection: McLaren Vale Chateau Reynella Old Cave Fine Old Tawny Port. A mouthful of a title and an equal mouthful of fine old flavors that made it a perfect partner to the divine dessert. And now, off to the Orbit Room for a cognac, right, Papa Steinke?...

WMS MOREL FORAY
by Dan Czederpiltz

The annual WMS morel foray this year took place west of Madison at Black Hawk Ridge on Sunday, May 16. Due to an abundance of well-timed rain showers this spring, the morel crop in south central Wisconsin was larger than it has been in years. On the day before the foray, a morel-buying station near LaCrosse bought over 1,000 pounds of morels! Although foray members did not do quite that well at Black Hawk Ridge, most people did come away with a few true morels, and a couple of lucky individuals found enough hefty white morels for several large meals. It was unfortunately too late for the black morels that Black Hawk Ridge is famous for, but white morels, half-free morels, and false morels (*Gyromitra* spp.) were all well represented. In addition to the typical spring ascomycetes, the unusually wet weather brought out numerous agaric species, as well as an abundance of annual polypore species. Approximately 72 people showed up for the foray, including many representatives from eastern and western Wisconsin, and even northern Illinois. The good turn out was probably due to a combination of good weather conditions (rainy before the foray, but beautiful on the day of the foray), as well as the dedicated work of Betsy True, who worked hard to organize and promote the foray. Out of the 72 people who showed up for the foray, a small percentage enjoyed foraying so much that they took an extended tour through the uncharted southern realms of the park. Although these intrepid explorers did not collect many morels, they did get to see some interesting sites, and finally returned to the parking lot after some extended cell phone calls and a few honks from car horns (mushroom hunting has gone high-tech, so always remember to exchange cell phone numbers before going into the woods!).

Species List vspace
Agrocybe c.f. *praecox*
Coprinellus micaceus
Flammulina velutipes
Fomes fomentarius
Ganoderma applanatum
Gyromitra esculenta
Morchella esculenta
Morchella semilibera

Peniophora cinerea
Peziza badiocnufa
Pleurotus populinus
Polyporus squamosus
Polyporus alveolaris
Polyporus arcularius
Puccinia coronata (Oat Crown Rust on Buckthorn)
Puccinia podophylli (Mayapple Rust)
Tremella mesenterica

INDIAN LAKE COUNTY PARK FORAY by Peter Vachuska

Saturday, June 19th, was a gorgeous day for the WMS/MIG Foray. It was sunny and cool with plenty of rain over the past two weeks (and surprisingly, without too many mosquitoes). There were about 15 people at the foray. The leader was Dr. Dan Czederpiltz of the Forest Product Lab. We were also honored by the presence and expertise of Professor Tom Volk of UW-LaCrosse.

We collected a wonderful variety of spring fungi. The most widespread fungus was a scarlet cup *Sarcosypha occidentalis* which was always underfoot along the paths. The largest fungi were the half dozen *Megacollybia* (*Tricholomopsis*) *platyphylla*. The most prized and unusual was the tiny *Sphaerobolus stellatus* -- the sphere-thrower. The largest edible was a good collection of *Pleurotus ostreatus*.

After the foray there was time to talk and to test out the keys that Tom Volk is developing for his new book. We tried some of the harder LBM's and the keys were very impressive. Most of the larger fungi were disposed of in a battle that escalated from a mushroom tossed in Dan's backpack to a platter-sized *Megacollybia* being hurled. There were no casualties except for the fungi who were the main beneficiaries by having their spores and tissues spread over a wide area.

Thanks to Betsy True for organizing the foray.

MYCOBRIEFS by Colleen Vachuska

* FUNGI UNDER THE SNOW: Until recently, it was thought that little microbial activity occurred in the soil under snow. However, researchers from the University of Colorado and San Diego State University have since found out otherwise. Graduate student Christopher Schadt took soil samples in a Rocky Mountain meadow during spring, summer, and fall over a three-year period. Schadt and his colleagues measured the biomass of the fungi in the samples and were surprised to discover that the greatest mass occurred in the dead of winter, when the fungal biomass was about three times higher than during the summer. Bacteria are also common in soil communities, but the fungal biomass varied from six times that of the bacteria in summer to fifteen

times that of the bacteria in winter. Mycologist Cathy Cripps of Montana State University explained this seasonal variation by pointing out that, in winter, there would be little for microbes to eat but cellulose-rich grass, and fungi are better than bacteria at digesting cellulose. Researchers also determined that about 100 different types of fungi were involved in this world under the snow, including three new branches of the fungal family tree. (Science, Sept. 5, 2003)

* **MORE FUNGAL FARMERS:** Fungus farming by ants is well-known, and it has been reported in other insects such as beetles and termites, too. Now, for the first time, fungal farming has been reported outside the insects, according to Brian Silliman from Brown University and Steven Newell of the University of Georgia, who did research on Sapelo Island off the Georgia coast. Silliman and Newell have determined that the snail, *Littoraria irrorata*, which lives in East coast salt marshes, needs to eat fungus to thrive. The snail cultivates the fungus by sawing gashes in the leaves of cordgrass and waiting for fungus to grow in the wounds before eating the leaves. Snail droppings increase the amount of fungus that grows in the cut. (Science News, Dec. 6, 2003)

* **FUNGI IN SPACE:** In April of this year, millions of yeast cells were blasted into space inside a Russian rocket. The samples were taken to the International Space Station so that experiments could be done on them to investigate how cosmic rays cause cancer. Radiation in space is a concern since astronauts are exposed to much more radiation than is typically found on earth. The long-term consequences of exposure to radiation in space are unclear, but radiation can damage DNA, which can in turn trigger cancer. Yeast cells were to be used in these experiments to monitor radiation damage, since fungi have mechanisms to sense DNA damage and begin to repair it. The yeast sent into space were genetically modified by biologists at the University of Manchester (in England) to produce a fluorescent green protein when the DNA repair starts to kick in: the greener the yeast, the more DNA damage is taking place. (Manchester Evening News, April 20, 2004)

* **I HADN'T REALLY THOUGHT ABOUT IT, BUT I SUPPOSE:** In the article "The Fellowship of the Rings: UFO Rings Versus Fairy Rings", various mycological explanations are given for the phenomena of "UFO landing rings," i.e., circular marks left by "unidentified flying objects" where the grass or ground is "depressed, burned, or dehydrated." According to the author, many rings or patches in turfgrasses are caused naturally by fungal diseases such as snow mold, powdery mildew, damping-off, *Ophiobolus* patch, and brown patch. The author points out photos of diseased turfgrasses and photos of alleged UFO rings that he feels are practically identical. Fairy rings are another possible explanation offered for sightings of UFO rings. Fairy rings are caused by fungal growth which originates in a central spot and spreads outward, leaving dead or damaged vegetation in its wake. Some "Close Encounters of the Second Kind" (CE-2) involve reports of "glowing marks on the ground," "phosphorescent patches," or "ghostly lights" in the forest. Bioluminescent fungi, which are found in such genera as *Armillaria*, *Mycena*,

Omphalotus, and Panellus may be a possible explanation for these phenomena. Bioluminescent mushrooms produce a light which attracts insects that spread fungal spores. Slime molds and examples of fungal associations with natural and astronomic phenomena that may have triggered CE-2 episodes are also discussed in the article. (Angel Nieves-Rivera, The Skeptical Inquirer, Nov.-Dec., 2003; adapted from an article in Inoculum Nov.-Dec. 2001, which can be read on the Mycological Society of America website)

* **MAGIC MUSHROOMS AS MEDICINE:** Recently, doctors have begun testing of hallucinogenic drugs to see if they might have value in psychiatric medicine. Francisco Moreno of the University of Arizona has treated eight patients with psilocybin, the active ingredient in so-called "magic mushrooms". Anecdotal reports have suggested that the drug may help patients with obsessive-compulsive disorder. Moreno says that psilocybin is safe when used under supervision in a controlled environment, but that the hallucinations it may cause can be frightening if people are not prepared for the experience. Moreno is testing a range of doses to see whether patients actually need to experience the full hallucinogenic effect of the drug in order to benefit from it. Psychiatrist Charles Grob of UCLA is also testing psilocybin to see if it relieves anxiety in terminally ill cancer patients. (Nature, May 2004)

STRIATE, SULCATE, PLICATE, AND PELLUCID by Steve Nelsen

To me, the most striking fungus Adrienne and I found in a week in Oneida and Vilas Co. during the dry summer of 2003 was several tight clusters of long-stemmed gilled fungi that I finally realized to be *Lentinellus cochleatus*, which we had seen several times before but had looked different (it was older before). It is always described as having a sulcate stem, which I had not particularly noticed in older specimens. This reminded me of the technical words used to describe mushrooms, which are a major stumbling block to the beginner. Sulcate has been said to mean deeply creased (Note: Smith and Smith, 1979.), grooved (Note: Smith, Smith, and Weber, 1973.) and furrowed (Note: Hard, 1908.) but a less terse version is: (of pileus and stem) grooved, more extreme than striate, less than plicate (Note: Kauffman 1918, repeated almost verbatim by Bessette, Fischer, and Bessette, 1997.).

"Plicate" is a common condition for caps of *Coprinus*, and one species is even named for it.

Although the cap of *Bolbitius vitellinus* has been described as striate, the one in the picture below is at least as deeply grooved as in several *Coprinus* species I have seen described as plicate.

Then of course there is "pellucid", which means that the cap looks striate or sulcate or whatever, but is actually smooth, although transparent enough that the gills show through; this disappears as the cap dries out.

I won't even bring up "rimose", which in one word means splitting, which the caps of *Bolbitius* and *Coprinus* that are described as plicate to striate commonly do in age, and is typical of lots of *Inocybes*.

The UW botanist Fassett said in the introduction to his book on legumes that he knew 37 technical words used in botany that mean "not smooth", but didn't know where one stops and the next starts.

RECIPE: MUSHROOMS IN SOUR CREAM

by John S. Komosa

Any edible (wild) mushrooms can be used as long as they don't fall apart when boiled or become `mushy'.

Clean, cut up into smaller pieces; boil, drain, rinse in cold water, refrigerate.

Now mix cold 'shrooms, chopped onion, minced garlic, spoon of mustard, sour cream, spoon or two of mayo, spices, salt & pepper to taste, dash of sugar.

Let stand in fridge for several hours before eating cold with rye bread or mashed potatoes.

The amount of sour cream and mayo depends on how much you count calories; and amount of other ingredients on your taste.

END