THE NEWSLETTER OF THE WISCONSIN MYCOLOGICAL SOCIETY
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Contents:

MESSAGE FROM THE PRESIDENT

We've just finished the morel season. The cold weather seemed to have delayed the season a little. However we got enough rain to find our share of morels. It was also an interesting year in that I saw some less common varieties of morels and false morels: Verpa conica, V. bohemica, Gyromitra esculenta, Morchella augusticeps and M. semilibera. Overall it was a successful spring mushroom season. I think we can expect an equally good summer and fall. With El Nino out of the picture for a while we should be getting more rain than we have received the last few years (though this is impossible to predict accurately). The board of directors has planned a full and varied fall schedule. It is so full that we've had to schedule two forays on one weekend. We are also trying to extend, and improve the quality of, our foray sites. We are always looking for new and interesting places to go.

I want to thank the club for sending me a card and a book during my recent illness and short stay in the hospital. It took a long time to find the cause of my problems. During one stage in my diagnosis, a doctor thought that perhaps I was allergic to fungi and for several weeks I was on a diet that was fungi-free (or as near as possible). This was a very interesting experience, as even though I thought I knew all the foods in which fungi is found, I didn't. I knew that cheese, and fermented foods such as soy sauce, were out and that all yeasted foods such as beer, wine, and bread couldn't be eaten. However, among the things I didn't think of were: anything containing vinegar such as salad dressing, pickles, ketchup and mustard; all dried fruit such as raisins or prunes (harmless fungi invade the fruit as it is drying); juice concentrates; sausages and aged meats. About the only things that could be eaten on this diet were fresh fruits and vegetables, meats, and quick breads. Even these couldn't be stored for long before fungi would invade them. All in all, I'm glad the diagnosis was incorrect; though the experience was a good reminder of how ubiquitous fungi are in the world and in all of our diets.

The summers are usually a slow time for mushroom hunters. We should, however try to get out as often as possible. The society is hosting a foray on July 24. This will be our first midsummer foray (hopefully not our last). We are particularly dependent on the weather during the summer. After a rainy period is an excellent time to get out and see what's popping.

I look forward to seeing everyone at our annual meeting and potluck picnic on June 26th. Good luck and good mushrooming.

Peter Vachuska

UPCOMING WMS EVENTS

June 26 Annual Meeting and Picnic: 4 p.m., Falk Park. Officers and directors for the coming year will be elected in a brief business meeting. Bring a dish to share for the potluck picnic. A map and detailed information has previously been sent out to members.

2July 24 A Midsummer's Foray: See the map and announcement on the back page of this newsletter.

Sept. 26 Tenth Annual Mushroom Fair: 10 a.m.-- 4 p.m., Milwaukee County Museum. More information will be provided in the September newsletter.

WMS FALL FORAY SCHEDULE

September 4: South Kettle Moraine
September 11: Mauthe Lake
September 18: Madison area
September 19: Pike Lake State Park
September 25: Miniforays for the mushroom fair
               Brightondale County Park
               South Kettle Moraine
October 2: Point Beach State Forest
October 9: New Muenster area

OTHER FUTURE EVENTS OF INTEREST

Aug. 10 Alan Parker, WMS member and professional mycologist, will be giving a talk/demonstration about wild mushrooms for the general public at 7:30 pm. The slide lecture (supplemented with live specimens if possible) will be held at the Retzer Nature Center, just west of Waukesha on County DT - 1/4 mile south of Hwy 18. This lecture is a very basic and brief introduction to common edible and poisonous fleshy fungi of Wisconsin. For more information call Retzer Nature Center at 896-8007 or Alan Parker at 542-7688.

Aug. 15-20 The Natural History of Mushrooms - workshop on mushroom identification, mycophagy, fungal habitats, and fungal ecology at the Leelanau Center for Education, Glen Arbor, Michigan, utilizing the nature preserve of the Sleeping Bear Dunes National Lakeshore. The instructor is Dr. Andrew Methven, a mycologist from Eastern Illinois University. For more information, call (616) 334-3072.

Sept. 19-25 Stalking the Wild Mushrooms - collecting and studying fall mushrooms at The Clearing, Ellison Bay, Wisconsin. The class is instructed by naturalist Charlotte Lukes (who presented a slide show at a WMS meeting in 1992). For more information, phone (414) 854-4088 or write to: The Clearing, P.O. Box 65, 12183 Garrett Bay Road, Ellison Bay, WI 54210-0065.

Oct. 14-17 Daniel E. Stuntz NAMA Foray, Fort Worden State Park, near Olympic National Park and historic Port Townsend, Washington. For more information, contact Denny Bowman, 520 NE 83rd, Seattle, WA 98115. You must be a NAMA member to attend.

Deadlines for Photo Contests

Sept. 8 Midwestern Mushroom Photo Competition sponsored by the Milwaukee Public Museum.

Sept. 15 NAMA Photo Contest---Send slides to Dean Abel, Dept. of Biology, 138 BB, University of Iowa, Iowa City, IA 52242. For more information, contact a recent Mycophile or the contest director Dean Abel at the address given above.

FUNGAL BRIEFS

* The first-place winner in the 1993 Westinghouse Science Talent Search (a science contest for high school students) was Elizabeth Pine, 17, of Chicago, whose project looked at the classification of false truffles. "She compared DNA from false truffles with DNA from Laccaria mushrooms, which produce similar spores. Her results indicate that taxonomists should probably reclassify false truffles as belonging to the Laccaria genus." (quoted from Science News, March 13, 1993) It's difficult to comment on this without more information, but it's interesting that the first prize was given to a project involving lowly fungi.

* A plant ecologist studying at the Rocky Mountain Biological Laboratory in Colorado has observed that a certain rust fungus can infect and take over the growth of a wild mustard (Arabis holboellii) causing the normally blue-flowered plant to send up a shoot topped by a yellow flowerlike cluster of leaves. These fake flowers attract insects and reward them with a sugary fluid given off by the fungus. By visiting these pseudoflowers and picking up and distributing sex cells, the insects make sexual reproduction of the fungus possible. This is the first rust that has been discovered to cause its host plant to make fake flowers. (Science News, March 13, 1993 and Milwaukee Journal, March 21, 1993)

* A recent study published in Science (April 16, 1993) states that, ancestrally speaking, fungi are more closely related to animals than to plants. The study examined one gene as it mutated across 22 species. It concluded that animals and fungi share a hypothetical evolutionary ancestor, most likely a one-celled protist, not shared with the plant kingdom. This is all of only theoretical importance unless you are a very conscientious vegetarian. (Time, April 26, 1993)

* A deadly fungus, the butternut canker, is striking almost all of the butternut trees in Wisconsin. The disease opens sores on the branches and bark of the tree and often kills it. This situation is threatening for the butternut species because Wisconsin has about 58% of the nation's butternuts, and the disease has heavily damaged butternuts elsewhere. (Milwaukee Journal, March 21, 1993)

* In the last few years, the drug taxol has shown promise as an anticancer treatment. However, the drug is obtained from the bark of the rare Pacific yew tree, found in the old growth forests of the Northwest, and is costly to produce, both environmentally and in dollars. Though other yew tree sources have become available, the price tag is still high. Now there may be a cheaper and more ecological alternative. Scientists at Montana State University have discovered a fungus growing in the bark of a yew tree that produces taxol even when removed from its host. The fungus has been classified as a new species with its own genus, Taxomyces andreanae. Much work is still needed to determine whether this fungus will indeed provide a viable taxol source. (Science, April 9, 1993)

* Both eastern and western states have been beset by dogwood anthracnose, a fungal disease which attacks flowering dogwood. Though the disease is not fatal in hot sunny areas, the flowering dogwood population is being wiped out in many moist cool forests of the eastern and southern U.S. This tree loss is expected to have a significant impact on birds and other wildlife which depend on dogwood berries as a food source. Dogwood anthracnose first appeared in 1976, and so far it has invaded 19 states. (National Wildlife, April-May 1993)

* The May 24th Milwaukee Journal reported that eleven people died after eating poisonous mushrooms during the harvest season in Iran's western Kermanshah province. This was all of the information available.

FEBRUARY MEETING: GASTEROMYCETES

At the February 17th meeting, Dr. Alan Parker of UWC-Waukesha County presented a slide show/lecture on the Gasteromycetes of Wisconsin. About 25-30 members attended.

The Gasteromycetes are a diverse and interesting group of fungi that includes such well-known forms as puffballs, earthstars, stinkhorns, false truffles, and bird's nest fungi. Some of the traits that these groups have in common include that (1) the spores develop inside the fruiting body, and (2) the spores are not forcibly discharged. This second characteristic leads to a variety of methods of spore dispersal, in addition to the usual agents of wind and rain. For example, the fetid odor of stinkhorns attracts insects who carry spores away with them. Mature Bovista act like "tumbleweeds", that is, they are light enough to be buffeted about by the wind, and they scatter spores as they bounce along. In one of the more complicated methods of spore dispersal, the fruiting body of a bird's nest fungi acts as a splash cup from which raindrops eject the "eggs" containing the spores, sometimes up to 3-4 feet in the air.

In Wisconsin, 25 genera and 63 species of Gasteromycetes are represented. In recent years, a number of species have been newly recorded in Wisconsin by Dr. Parker, with, in some cases, the help of discoveries of club members. John Steinke, in particular, has found rare or newly recorded species of the Arachnion, Bovistella and Simblum genera. There have also been new records for Disciseda, Geastrum, Melanogaster, Nidularia, Phallogaster, Scleroderma, and Tulostoma.

As Dr. Parker went through his slides, he pointed out many interesting things about this unusual group of fungi, the Gasteromycetes, which seems to have something for everyone. It was also very exciting to realize that new species are being added to the Wisconsin list over time, and that this is a project where amateurs can make a real contribution.

by Colleen Vachuska

MARCH MEETING: GROWING SHIITAKE

Joe Krawcyzk, owner of Field and Forest Products, educated and entertained the membership about shiitake growing at the March 16th meeting. Operating his mushroom farm since 1983 has made him a well-respected expert on the subject. Now he grows a number of specialty mushrooms like Hericium, Stropharia, and Pleurotus, as well.

Shiitake, however, remains his specialty. He and his wife, Mary Ellen, produce 2000 logs indoors and 4000 logs outdoors from a variety of

strains each year. They also sell spawn and growing kits.

To grow your own shiitake, Joe recommends cutting the trees before the buds swell in spring. Red oak or hard maple are the best, but nine types of trees, including hornbeam and beech, are acceptable. Select trees with good sapwood development and a three to six inch diameter. Inoculate the trees with spawn about 4 weeks after cutting. Ideally, this should be in mid to late April or when temperatures are reliably over 40 degrees. Spawn can be purchased as impregnated plugs or sawdust. Once inserted into the logs they are waxed over and incubated in a moist shady place. Joe emphasized remembering that your goal is to "rot that log." Thinking like a mushroom will help you choose the all-important incubation site.

One can expect fruiting to begin six to eighteen months after inoculation depending on one's fungal strain. As a general rule, one can expect to harvest about one pound of mushrooms per one inch of log diameter over the life of the log. Intensively-farmed commercial logs fruit only about 1-1/2 years, but a hobbyist's logs can yield for up to five years.

Many thanks to Joe for his excellent talk. As a veteran user of Joe's shiitake kits, LeRoy Ciombor highly recommends them. Joe's and Mary Ellen's new catalog will soon be available at:

Field and Forest Products, Inc.
N3296 Kozuzek Rd.
Peshtigo, WI 54157
Ph. 715-582-4997 8-5 M-F

Send for your catalog now so you can get an early start next spring!

by Kris Ciombor

APRIL MEETING: MORELS

On April 21, members of the club watched "The Curious Morel Mushroom Hunting Video". The video is written and narrated by Larry "Tree" Lonik, an outdoor writer who also wrote the book The Curious Morel (reviewed in the March 1985 issue of this newsletter). Lonik is identified on the video as "North America's Number One Morel Expert". Whilst this is certainly an auspicious, and probably suspicious, title, the video is fun and easy to watch and provided a good lead-in to the upcoming morel season.

In the video, Lonik states that morel season is about one month long all over the U.S. and Canada, starting in February in the deep South, and moving north about 100 miles a week. He emphasizes that "morel month" consists of three distinct phases, each lasting about 10 days. The first is dominated by Morchella augusticeps (black morels), the second phase by M. esculenta (white morels), and the last by M. crassipes (bigfoot morels). Specimens found become larger as it gets later in a phase.

Lonik has a 10-point plan for hunting morels generally, with further suggestions for each phase. The gist of his advice is that in advance of the season, the morel hunter should choose five or so spots that look hopeful and plan a route which covers all of the spots. Then, starting early, such as the last week of April, cover this route every few days, spending only short periods of time at each spot. Unsuccessful spots should be eliminated and new spots added. A notebook should be used to record what is found and where and when it is found. He also mentions several times that an onion sack should be used to collect morels, as it helps disperse the spores, providing a "Johnny Appleseed" effect.

The video also discusses preserving morels. Eight pounds of fresh morels become one pound of dried morels, so it takes two ounces dried to reconstitute to one pound fresh. One of Lonik's favorite methods of drying is simply to stretch a screen, propped up in the middle with boards, over a couple of logs, and then dry the morels in the sun for 5-6 hours. Other portions of the video discuss morel festivals, mushroom clubs, and growing and marketing morels.

The latter part of the video contains a cooking demonstration, where the narrator prepares a morel quiche. This recipe seems to highlight once again the irony that low-calorie, low-fat mushrooms so often are teamed with high-calorie, high-fat ingredients such as bacon, cheese, butter, cream, etc.. Lonik also has a second video which contains 15 recipes for cooking morels.

One objection I have to the video is that in it Lonik states that false morels are edible. Later, he recommends not eating the beefsteak morel, but he doesn't come down very hard on a potentially dangerous mushroom.

The original plan for this meeting had been to watch a NAMA slide show on purple- and brown-spored mushrooms, but the slides never arrived. However, I don't think anyone was disappointed with the change in plans. The video provided good motivation to get out there and hunt. Thanks to Bill Blank for providing a TV and VCR so that members could watch the video.

by Colleen Vachuska

FIRST ANNUAL MOREL FORAY

About 40 people made the trip out to New Glarus Woods State Park in Green County for our club's first (annual?) morel foray. It was quite a beautiful, warm day and the scenery, as promised, was quite spectacular. (You can always tell that there were not spectacularly abundant fungi when an article begins by praising the weather and the scenery.)

Despite the late spring, we did manage to find some morels at our foray. Even though they were 2-3 inch, sickly looking little things that were about 5 days from maturity, about two dozen little gray morels, Morchella esculenta, were found in their typical habitat under dead elm trees that still had some bark on. Usually this time is quite late enough to find morels (sometimes too late), but this year it was a bit early. It's always difficult to predict exactly when the morels will be out in a particular area. Some years in my favorite spot (not this one) I have found morels as early as April 25. This year I didn't find them in that spot until May 13! When I scheduled the morel foray for May 9 (at some time in February), who knew that we would have an incredibly late spring? Incidentally, I have been in Wisconsin 12 years and this is the twelfth year in a row that people have said it was an unusual spring.

Several other interesting fungi also were found, including the early morel, or bell morel, Verpa conica, as well as another ascomycete, the black tulip fungus Urnula craterium. Lots of last year's polypores could be seen on trees and down wood. Some of these fungi actually form their fruiting bodies in the fall and wait until spring to shed their spores, when they have a better chance of germinating and establishing their mycelium before harsh weather. Two spring-fruiting polypores, Polyporus brumalis and Polyporus alveolaris ($=$Favolus alveolaris), were also found. Yes, believe it or not there are still many species left in the genus Polyporus, and P. alveolaris has actually been moved back to Polyporus from the segregate genus Favolus! Let's hear it for the lumpers! Several fruitings of the winter mushroom, Flammulina velutipes, were also found. This mushroom, also known as the velvet stem and cultivated and sold in grocery stores in an unrecognizable form as enoki, is often found on dead elms and always prefers very cold temperatures. I have even found it fruiting in Madison during the last week of February.

None of the other species of morels were found on the day of the foray. Two (three? four?) other species of morels are commonly found in Wisconsin. These include the black morel Morchella augusticeps ($=$M. conica), the half-free morel Morchella semilibera, and the big-foot or yellow morel Morchella crassipes, which I consider to be a large variety of M. esculenta. Another species, Morchella deliciosa, may also occur, but there is significant controversy over exactly what that species is.

It has been suggested that we probably would have found more morels during the foray if people had not gone to the foray site early the day of the foray, the day before the foray, or even (reportedly) four days before the foray. Therefore, I sugest that next year's foray site be kept secret until the actual foray day when we will meet at a convenient pre-arranged site 5-10 miles from the foray site and then carpool/caravan to the actual site. This will make it more fun for everyone.

So although the morels put in only a token appearance, many people in attendance at the foray learned how to look for morels in this part of the country and had a good time hiking around a pretty springtime woods after a VERY long winter. I hope we will
have another, even more successful spring morel foray next year.

by Tom Volk

AN UNUSUAL MUSHROOM SITE
by Tula Erskine

Some years ago, we visited friends in Massachusetts. They lived in a suburb of Boston and had never ventured to the wilderness west of the Appalachians. Our hostess, Marion, was most eager to show us some of the historical buildings and markers. She was a direct descendant (on both sides of her family, yet) of the first white settlers here. We were not

successful in making her aware that American history was taught in midwestern schools, too!

Finally, we reached a high point - the statue of "the" Minuteman! Marion read (aloud) all of the information at the base of the statue. I glanced across at my husband. He was looking intently, beyond the statue, as I had been. (What is that light brown clump in the grass?) The second the reading ended we scurried to the spot. There, on almost sacred ground, nestled in the grass, were three beautiful, perfect morels!

We thanked the Minuteman, and knew we'd remember this day.

MY FAVORITE LAWN MUSHROOM
by Peter Vachuska

There's no doubt that the wilds are the best place to hunt and collect mushrooms in their full variety. However, even in the city one can foray, especially after a rain. In fact, I first became interested in mushrooms through trying to identify a number of species such as Coprinus micaceus, Marasmius oreades, and others growing on lawns in my neighborhood. No doubt other WMS members have a similar history.

One of my favorite of these "lawn" mushrooms may be quite uninteresting to a lot of people. It's not colorful and has no culinary value. Still, its unusual characteristics make it interesting.

It's a fairly common mushroom with a long white stem (3 - 5 inches) and a small brown conical cap. One finds it dewy summer mornings on city lawns leaning on the grass. You must get up early to find it, since by midmorning it is usually completely disintegrated. The first thing you notice about it is that its cap is extremely sticky and limp; it appears almost to be decomposing. Any attempt to make a spore print is frustrated, leaving only a thin layer of dried light-brown jelly.

Searching field guides with these very few clues to go on, one may eventually stumble upon this mushroom (see Smith & Weber's field guide). Its name is Gastrocybe lateritia (Gastrocybe means stomach cap and lateritia refers to the color of bricks.) Reading about it you find that it's not a true gilled mushroom at all, but a throwback of gilled mushrooms. Rather than sending off its spores in the usual method of letting them fall off the gills into the breeze, this little mushroom acts more like a Coprinus species and just falls over and liquefies itself. Unlike a Coprinus, though, it never has a definite gill structure but its "gills" are always just a gelatinous mass.

It's always a treat for me to find such an odd though not uncommon mushroom.

Editor's Note: This article was written several years ago when Peter & I lived in Milwaukee. Since moving further north, we have not seen G. lateritia.

RECIPE:
BACON MUSHROOM TOAST ROLLS
contributed by Joanne Pasek

4 slices bacon, finely chopped
1/2 lb. mushrooms, finely chopped
1 medium onion, finely chopped
4 oz. package cream cheese, softened
16 slices sandwich bread, crust removed
4 large dill pickles
1/4 cup butter, melted

Saute bacon, mushrooms, and onion until tender, not crisp. Stir in cheese; mix well. Roll bread slices tightly with rolling pin. Spread each slice with about two tablespoons cheese filling. Slice pickles lengthwise into quarters. Place a pickle slice along the end of each bread slice. Roll up tightly, starting at pickle end. Fasten with tooth pick. Place seam side down on baking sheet. Cover with plastic wrap. Chill at least 1 hour or until needed.

When ready to serve, brush rolls with melted butter. Bake at 375 degrees for about 20 minutes, or until golden brown. Remove toothpick; cut each roll in half. Serve hot.

If desired, the unbaked rolls may be frozen for future use. To serve, thaw 30 minutes, then brush with butter and bake as above.

THE END