

# September 2000

May 16, 2013 by WMS2013

THE NEWSLETTER OF THE WISCONSIN MYCOLOGICAL SOCIETY  
September 2000  
Volume 17 Number 3

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## MESSAGE FROM THE PRESIDENT

The Wisconsin Mycological Society has an exciting fall schedule planned. We have a "road trip" to La Crosse planned that should be very interesting. The foray will be in an unglaciated part of the state. We should find species that we don't find in our area. There should be plenty of our familiar mushrooms, too.

This year we will also be working with the Milwaukee Parks and Domes for a day of Mushroom Mania at Falk Park on October 1. The format will be somewhat different than our old mushroom fair and I hope we have a good turnout.

The first *Grifola frondosa* was found at the end of August, which is early. With heavy moisture, and if the nights start to cool, we could have an early and very productive mushroom season.

I always look forward to the start of the fall mushroom season. I not only enjoy the identification, but also picking and eating some of our delicious finds, of course. Another thing to notice: There is always a fall fashion show put on by our members. Some have leather boots, rubber boots (for those who hunt the swamps), tennis shoes (for those fast starters) and hiking boots. We see an array of hats, scarves and netting to help keep the bugs down. My favorite is the baskets. Some are homemade, some Indian style, some picnic baskets, some large (those confident meat hunters) some small (for science or a small appetite), a plastic or paper bag (just trying it out the first time). Observe; it's fun. Watch our members. Talk to each other. You will find that the social part of the club is 50 percent of the fun. It makes for a 100 percent more enjoyable and memorable experience. You never know; you may find many new friends with similar interests.

by Chuck Soden

## DUES

This is a gentle reminder that your annual WMS dues are due on January 1. Early payments are appreciated by the secretary. Checks can be mailed to John Fetzer at 1309 S. 73rd St., West Allis, WI 53214. Note that WMS dues are \$15 and that NAMA (North American Mycological Association) dues are \$32.

## FALL FORAYS AND EVENTS

- September 9 (Saturday) -- Foray to Bristol Woods County Park in Kenosha County; held jointly with the Parkside Mycological Club.
- September 16 (Saturday) -- Foray in the La Crosse area.
- September 17 (Sunday) -- Foray at Monches Woods.
- September 23 (Saturday) -- Foray in South Kettle Moraine State Forest.
- September 30 (Saturday) -- Foray at Mauthe Lake in the North Kettle Moraine.
- October 7 (Saturday) -- Fred Hainer Memorial Foray at Point Beach State Forest in honor and memory of Tula Erskine.

Members should have received announcements with directions to each of the above forays. All forays start at 10 am with the exception of the one to La Crosse, which meets at noon.

## MUSHROOM MANIA

Mushroom Mania will take place at Falk Park (on Rawson Ave. just west of I-94) on Sunday, October 1, 2000 from 11:00 am to 4:00 pm. There will be mushroom/nature hikes led by the Nature in the Parks naturalists. Several members of the Wisconsin Mycological Society will be on hand to identify your mushroom collections. Identified specimens collected by club members will be on display for educational purposes. In a reference corner, seasoned veterans will discuss their favorite mushroom books with new enthusiasts. Stuffed mushroom hors d'oeuvres will be available from V. Richards Catering for a small fee. Joe Krawczyk, noted lecturer and long-time friend of the Wisconsin Mycological Society, will be on hand selling the shiitake he grows at Field and Forest Products Inc. in Peshtigo, WI. Mary Ellen Kozak, President of the Shiitake Growers Association, will be interpreting her educational display on shiitake cultivation. This event will be one of the best learning opportunities this year for both new and seasoned mushroom veterans.

APRIL LECTURE ON GROWING SHIITAKE  
by Colleen Vachuska

For the April 12th lecture, Joe Krawczyk of Field and Forest Products of Peshtigo, Wisconsin, graced us with his knowledge and experience in growing mushrooms as well as his sense of humor. He and his wife Mary Ellen Kozak are in their 17th year of cultivating mushrooms at her former family dairy farm. "It's been quite a ride!" and "This mushroom business is really different!" were some of the quotes from Joe as he showed samples of some of the mushrooms that they grow: *Ganoderma lucidum* (Reishi) a fungus purported to have many healthgiving properties; *Grifola frondosa* (Maitake) a good edible which they are just starting to cultivate (on sawdust); *Pleurotus ostreatus* (Oyster Mushroom); and of course, their mainstay *Lentinus edodes* (Shiitake). Joe said his personal favorite is log-grown shiitake, and though logs are the slow way to grow shiitake (taking 18-24 months to get a first crop), he talked about what a real "earth pleasure" it is to pick the fresh mushrooms off the logs in the spring. Field and Forest also cultivates *Hericium* and *Stropharia*.

After that introduction, Joe presented a slide show which he called "Around the World with Mushrooms and Mushroom Cultivation". He and Mary Ellen are involved with a program which sends people like them overseas as technical advisors to help with mushroom growing projects. We saw slides and heard stories about his trips to places such as China and Russia. It is always interesting to learn about the mushroom "cultures" of other countries which are more mushroom friendly.

The last part of the lecture was an overview of mushroom cultivation. The main steps in shiitake cultivation are: obtaining the inoculum, preparing the logs, inoculating the logs, incubating the logs, mushroom production, and crop harvest and storage. Joe pointed out that you will need long logs with lots of sapwood (the light-colored band near the bark when you are looking at a cross-section), which indicates a high starch content. He said that a lot of people inoculate dead wood, unfortunately. Possible trees

that can be used are: oak (white is the best), chestnut, hornbeam, beech, alder, hickory, willow, maple, and aspen/birch. He recommended logs that are 2-1/2 to 6 inches in diameter. Joe also stressed the need to get several people to help with inoculation. At Field and Forest they use a high-speed drill made especially for this purpose. Joe recommended watering the logs heavily once a week and then allowing them to dry off in between.

Joe finished his lecture with a few remarks on growing other kinds of mushrooms. One of these was a cute story: Joe and Mary Ellen prepared an oyster mushroom growing project for the students in their daughter's class. The project involved growing the mushrooms on toilet paper and Joe said that Tom Volk asked about this: "How many flushes do you get off that roll?"

It was evident throughout the lecture that Joe and Mary Ellen have enjoyed their work and the opportunity to live "up north" and stay on the family farm. We wish them well in their mushroom ventures. Their business, Field and Forest Products, offers mushrooms, mushroom spawn, and cultivation equipment. They have a nice catalog with recipes and cultivation information. Their email address is: [ffp@field-and-forest.com](mailto:ffp@field-and-forest.com) and their mailing address is: Field & Forest Products, N3296 Kozuzek Road, Peshtigo, Wisconsin 54157.

P.S. At the end of the lecture, Joe gave members of the audience the opportunity to get a good deal on some shiitake seconds and most took him up on it!

WMS DINNER AT HEAVEN CITY  
by John Fetzer

On April 24, the annual Wisconsin Mycological Society Dinner was held again at Heaven City Restaurant, hosted by Chef Scott McGlinchey. This year a five course dinner awaited about 50 members and guests, but unfortunately, I was not able to gather any words of wisdom from our host, Chef Scott, so these

dinner notes are rather pale as compared to the dinner itself. I'm just going to list the courses, along with the available wine, and add a few comments here and there.

First: Crimini Mushrooms blended with Thai Noodles and unique Peanut Sauce, accompanied by Bonny Doon Pacific Rim Riesling. Crimini mushrooms sauteed in a combination of light olive oil and sesame oil. The smooth mushrooms and the crunchy noodles provided a wonderful setting for the tangy peanut sauce.

Second: Shiitake Mushrooms and Mount Sterling Jack Goats Cheese Empanada served with Hazelnut Mole Verde, accompanied by Sonoma Cutrere Chardonnay. An empanada is a Mexican pasty for those of you not enlightened, as I was prior to John Steinke's explanation. The mushroom and cheese filling was thick and rich, while the nutty mole sauce blended well with the mild hazelnut undertone.

Third: Grilled Portabella Mushroom on Seasonal Greens and Oyster Mushroom Vinaigrette, accompanied by Turnbull Carignane/Mourvedre. I like portabellas, grilled, sauteed, barbecued, it doesn't matter. The vinaigrette was made up of three different vinegars, but I didn't catch which ones -- sorry.

Fourth: Spring Trout Filet dredged in Mushroom Powder and sauteed in Mushroom--infused Olive Oil on fresh Watercress with Paul Horn's Morel Sauce, accompanied by Rosemont Pinot Noir. Special thanks go to two of our members for this course. The first to John Steinke, who requested the trout and morel sauce -- a throwback to a previous WMS dinner. The second to Paul Horn, who donated the dried morels used in making the wonderfully thick morel sauce. This course definitely made the diners think of spring!

Fifth: Enoki Mushroom and Apple Crepe with warm German Apple Schnapps sauce and whipped cream, accompanied by Eberle Muscat Canelli. Dessert was special, again. It is always fun to see what magical concoction Chef Scott can pull together and include mushrooms. While this definitely looked funny, with enoki mushrooms peeking out from the ends of the crepe, the surprise was in the tasting. The musty flavors associated with the mushrooms mixed well with the cinnamon apple filling and the creamy schnapps sauce draped over the entire crepe. A fine finish, once again.

Special thanks to Chef Scott and his staff. We were well cared for, and enjoyed another fine presentation to this group of mycophagists. Sincerely submitted by John Fetzer, WMS Food Writer, aka: Membership Secretary.

#### MOREL FORAY REPORT by Peter Vachuska

It was a gray day in May for the morel foray. But we had had sufficient rains before, so we had high hopes. The unknown factor was that we were visiting a new area. The area had looked good to me and had patches where Colleen and I had found morels in the past, but it was unclear if it could support a group of 25--30 morel hunters. In the past, other areas which looked good hadn't panned out. Two weeks before the foray, Chuck Soden and I scouted out the area and found three morels; so the mycelium was there.

On the 13th of May we met at the parking lot at Mauthe Lake Recreational Area and caravanned to the chosen area shortly after 10:00. There was a small parking area, but most cars had to park along the road. The foray was just what we had hoped for. No one collected a huge number of morels, but some came away with small grocery bags full and almost everyone had found enough for a meal or three. The morels were found in diverse habitats: by elms along the ice age trail, by the scattered elm in the white pine or prickly ash, or with sumac. Morels were also found in the grass in the ash plantation.

After the success of the morning, we tried a second location during the afternoon --- the site of the last two years' morel forays. As in the past, the site was generally unproductive. But we all had some morels to take home and left contented after a successful day of mushrooming.

#### MYCOBRIEFS by Peter and Colleen Vachuska

- \* Mushroom Poisonings in Russia: An outbreak of mushroom poisonings earlier this summer in Russia has killed 16 and sent 274 to the hospital. Alexander Zalyotov, spokesman for the Emergency Situations Ministry, said that sales of wild mushrooms have been banned in and around Voronezh, a town 300 miles south of Moscow. Misidentification as well as collecting on contaminated soil is being blamed for the outbreak. (Associated Press)
- \* Mushroom Deaths in the Ukraine: As of early July, 112 Ukrainians have died of mushroom poisoning. This rivals the number killed in the past two years combined. In 1998, 74 were killed and in 1999 there were 42 deaths. In some cases, entire families succumbed. Some poisoning cases involved poisonous

mushrooms being mistaken for edible ones, while some involve edible mushrooms collected in badly polluted areas. (Associated Press)

- \* A More Humungous Fungus: An *Armillaria ostoyae* found in eastern Oregon in the Malheur National Forest now holds the record for the world's largest organism. No one has come up with an estimated weight, but the organism covers 2200 acres with a diameter of three and a half miles and an average depth of three feet. It has been estimated to be 2400 years old.

The creature was found using aerial photographs of dying tree patterns and confirmed using DNA testing. And to think that it all started with one spore! (Associated Press)

- \* New Hybrid Plant Pathogens: Until 1994, records of hybridization between fungal species were rare, with fewer than 10 clear examples having been reported. However, since then, there have been at least 6 reports of emerging fungal hybrids, all involving plant pathogens. One example is the appearance of new hybrids of the genus *Phytophthora* which are killing riverside alder in Europe. These are hybrids between species of *Phytophthora* which are not normally aggressive pathogens of alder, so in this case, the hybridization has led to the ability to exploit a new host. In another example, new hybrids between the rust fungi *Melanospora medusae* (which normally attacks *Populus deltoides*) and *M. occidentalis* (which normally attacks *P. trichocarpa*) are now attacking *P. deltoides* and *P. trichocarpa* as well as poplar trees bred for resistance to *M. occidentalis*. Undoubtedly, human activity has increased the opportunities for fungal pathogens to come into contact with each other and to hybridize, increasing the potential for more aggressive or more versatile pathogens to be found. ("The Rise of the Hybrid Fungi," *Nature*, May 11, 2000)
- \* Fungal Photo Shoot: For some nice fungal photographs, *National Geographic*, August 2000, has a 14 page article entitled "Fungi." The text is an introduction to the more interesting aspects of fungi and mainly filler for the 12 photographs which run the gamut, including *Lactarius*, *Pilobolus*, bird's nest fungi, lichen, corn smut, rust fungi, and *Cordyceps*.

#### BOOK REVIEW: NORTH AMERICAN BOLETES

by Bessette, Roody and Bessette reviewed by Steve Nelsen

Alan E. Bessette, William C. Roody, and Arlene R. Bessette, *North American Boletes*, Syracuse University Press, 2000. xvi + 396 pages, ca. \$100, reviewed by Steve Nelsen.

This lovely book is copiously illustrated with color photographs from a "who's who" of American mushroom photographers and taxonomists, the majority reproduced at 3-1/4 x 2-1/8 inches. Somewhat unfortunately, it includes rather many photos from the Bessettes' recent *Mushrooms of North-eastern North America*: 57% of its *Boletes* section photos reappear in the present book. Some larger photos are scattered about in the text, but they are not referred to in the text; all require looking in the index to find. This book has extremely up-to-date nomenclature. Some eastern and southern species are reported for the first time, and several first reported in the 1990's also appear, so this book will obviously provide new species to everyone. It is more in the tradition of an up-dated and expanded (from "Northeast") Snell and Dick (1970) because of its pretty pictures than in the tradition of Smith and Thiers's "Michigan" monograph (1971). Although Smith is followed in not segregating *Xerocomus* and in limiting the number of species in *Pulveroboletus*, Singer's tiny genera *Meiorganum*, *Paragyrodon*, and *Xanthoconium* (which the Bessettes did not use even in their 1998 book) are recognized here.

In significant ways, this book seems to have been "dumbed down" for the 21st century. For example, on page 87 we are told that *Boletus* means 'fleshy-pored fungus'. This may be what the authors mean, but it is not the meaning of the Greek word (which most 19th or early 20th century mushroom books, where the tradition of translating words was still in vogue, say means "clod"). It is also not what the Romans meant. According to R. T. and F. W. Rolfe in *Romance of the Fungus World* (1925), Pliny provides an accurate enough description to make it certain that he used *boletus* to mean modern *Amanita caesaria*. They also say that *Boletus edulis* was the "fungi suilli" of Pliny and of Martial, "so called because the pigs are very fond of them" (BRB say *Suillus* means "swine"). Turning to another point, "Microscopic features" appear as an entry for the species described, but without comment, the term is taken to mean only the spores for most species. No illustrations of any microscopic features are given (in contrast to both S & D and S & T), although it is clear from their monographs that prior workers did not believe that identifications that ignore microscopic features are valid. I have never seen so large and specialized a book that makes no attempt whatsoever at arranging genera and species in a "natural order", and I consider that entirely suppressing the relationships between both the genera and the species covered by simply listing both in alphabetical order is a striking dereliction of duty by the present authors. This practice ensures that closely related taxa are widely separated and

difficult to compare, and it hinders a reader from gaining understanding of the principles that have been used in classifying these plants.

A distressing number of the species in S & T, or in Smith and Smith's *How to Know the Non-Gilled Fleishy Fungi* (1973, which had wider geographic coverage) simply are omitted from this work without comment. I would sincerely like to know whether any of the huge number of new taxa they defined, especially in *Leccinum*, are now believed to be redundant, but such information is completely lacking. One can always say that the subject is just too large to cover in a single book, but both of the above books are shorter and found space for several species omitted here. There is also other material included in the present book that seems extraneous to me. I think the least useful section of the book is the "unpublished species" (18 *Boletus*, *Leccinum*, 3 *Suillus*, and 3 *Tylophilus*) that are illustrated essentially without description. The miscellaneous collection of common "pseudoboletes" consists of stemmed polypores that are as well illustrated and described elsewhere. If this material had been omitted, there would have been enough space to keep from needing to omit species.

PUZZLING PANUS STRIGOSUS  
by Steve Nelsen

On a trip to Wildcat Mountain State Park on June 27th, 1999, we found both *Pleurotus ostreatus* and several specimens of a white, veiled pleurotoid fungus that had a distinctly yellowish cap under a white veil, and was growing on a log (maple?) still covered with hard bark. (See <http://www.geocities.com/pvachuska/n00c1.jpg> and <http://www.geocities.com/pvachuska/n00c2.jpg> ) Since *Pleurotus dryinus* is the only veiled one I know about, I was going to assume it was that, but I contacted Hal Burdsall about it by email, and he told me there are no yellow tones, ever, in *P. dryinus*. I showed him the specimens, which he said were conclusively not *P. dryinus*, but which he did not recognize. They were too young for spores, and I had dried them all anyway (which kills them, making it impossible to culture them), so the next weekend we returned the 100 miles north-west of Madison to Wildcat Mountain to get some for culturing. The log they were on was near the trail, and only a few hundred yards off the parking lot, so I expected to find it again. Luckily, no one had destroyed the ones I had left. In only six days the appearance of this mushroom had changed more than almost any I have ever seen. It had become very much larger, was now densely covered with hairs on the cap and especially the stem (noted as characteristic of *Panus strigosus* Berkeley and Curtis by Peck, for specimens found in 1872 and repeated verbatim by McIlvaine in 1902), and become much yellower. All traces of the veil that were apparent in the buttons were gone. (See <http://www.geocities.com/pvachuska/n00c3.jpg> ) Although it is not one of the most covered species, the mushroom was now easily recognizable as *P. strigosus* from more extensive descriptions and illustrations of this species in Kauffman (1918), O. K. Miller (1977), Smith, Smith, and Weber (1979), and Phillips (1991). I recognized it immediately because it is very distinctive, and I had seen it previously in three different years at Baxter's Hollow as well as at Devil's Lake and in the Smoky Mountains. I think it is clear that none of the above authors could ever have seen buttons of *Panus strigosus*; they are quite unrecognizable from the descriptions given. However, I think what has happened is the following. Most surprisingly, *P. strigosus* is absent from the extensive list for the Smoky Mountains. There is a second, related species, *Panus levis* B. & C. (originally spelled *laevis* using a diphthong *ae*, but more recently using *ae*, and the spelling is often now "modernized" to *levis*), that is less commonly described. I wasn't thinking of it at all, because my edition of Hard (1908, 1976 Dover reprint) has updated nomenclature (by Gilliam in 1975), noting that Singer moved *Panus laevis* to *Pleurotus*. This unfortunately put them in different genera in my index, and I never connected the two. Moving genera can really separate species. For example, Kauffman's *Panus* key starts on p. 44 but his *Pleurotus* key starts on p. 658 in the other volume. Nevertheless, Kauffman notes that *strigosus* and *laevis* are rather close (although he only describes *laevis* in a key entry, because he never thought he saw it) and that *strigosus* is hard to tell from a *Pleurotus*. McIlvaine also clearly says that the two species are related, and Singer (who transferred both to *Pleurotus*) notes that the two species may be the same, which I think is the solution. Hessler (*Mushrooms of the Great Smokies*, 1960, reprint 1975) includes only *Panus levis*, and is the only one to state clearly that it has a veil when young (Peck, Hard, Kauffman and McIlvaine all use various other comments instead of calling it a veil). This explains to my satisfaction why *strigosus* does not appear in the Smokey Mountains list; Hessler knows they are the same but doesn't bother to tell you, and uses *Pleurotus* (B. & C.) Singer, synonym *Panus* B. & C. as its name in the Smoky Mountain list. Comparing the descriptions when both species are included, *laevis* is smoother (under the "matted hairs"), less than half the size, and whiter. I think the conclusion is unavoidable that Berkeley and Curtis came up with two names for the same species, *laevis* for young ones, and *strigosus* for mature

ones.

RECIPE: GRETA'S SPINACH-MUSHROOM BAKE  
contributed by Greta Menke

This is a rather indefinite recipe and one can adjust proportions to fit the pan or the need.

2--3 cups cooked rice (can be cooked with a chicken bouillon cube, dry celery leaves, a little garlic powder, a few onion flakes or whatever!!!!!!)  
2--3 pounds mushrooms, sauteed  
1 cup chopped onion (Vidalias are outstanding.)  
2 10 ounce packages chopped spinach, thawed and drained  
1-1/2 cups ricotta cheese  
1/2--1 cup shredded mozzarella cheese  
1/4--1/2 cup grated Parmesan cheese  
2 12 ounce jars chicken gravy

Lightly butter a 9 x 13 dish. Line bottom and sides of dish with rice. Spoon about 1/2 of the jar of chicken gravy over the rice. You may need to use a little more. You are really flavoring the rice a little. Spread the sauteed mushrooms over the rice. If you like lots of mushrooms, saute 4 pounds!!!!!! Combine the spinach, onions, and the 3 cheeses. Spread over mushrooms. Pour remaining chicken gravy over spinach mixture. Cover loosely with foil. Bake at 325 degrees for about 35-40 minutes, taking foil off for the last 10 minutes. ENJOY.

END