The Newsletter of the Wisconsin Mycological Society

Volume 12, Number 2
June, 1995

MESSAGE FROM THE PRESIDENT

This is my last message from the president. It's been three years since I hesitantly accepted the responsibility of being president of the Wisconsin Mycological Society. I'd like to thank everyone in the club for making it an enjoyable three years. I'd especially like to thank the board of directors and the WMS secretary/treasurer John Steinke, who, like all good secretaries, keeps everything running smoothly, no matter what happens.

It's been quite gratifying to see interest and enthusiasm in mycology take off over the last few years. Our membership has grown by 50 and there's a new sense of excitement in the air.

It seems to have been a late spring for morels, but with sufficient rain and a good crop showing up. The WMS spring foray was a success. Almost everyone found morels, though not in quantities that a morel magnate would be satisfied with, but enough for a meal. See the morel reports and spring foray report in this newsletter for details.

I'm looking forward to seeing everyone at the annual business meeting and picnic on Saturday, June 24th. Come early and before the picnic we can have a short foray in the park.

Best Wishes, Peter L. Vachuska

UPCOMING WMS EVENTS

June 24 (Saturday) — Annual meeting and picnic, 4 p.m. at Falk Park.

July 29 (Saturday) — Third annual midsummer's foray, 9:30 a.m., John Steinke farm.

August 6 (Sunday) — Photography foray, 10:00 a.m., Scuppernong Nature Trail, South Kettle Moraine.

October 1 (Sunday) — Twelfth annual Mushroom Fair, 10:00 a.m., Milwaukee Public Museum.

- Notices on the July 29 and August 6 foray are included with this newsletter.
- The notice on the annual meeting has been mailed out previously.

OTHER EVENTS

August 12 (Saturday) — "Fleshy Fungi of Wisconsin", slide show/lecture by Sami Saad, 7:30 p.m., Ice Age Center, North Kettle Moraine State Forest.

August 19 (Saturday) — "Mushroom Fest" from 10 a.m. to 3 p.m. in Manitowoc, WI. (At the time of printing we have no other information.)

PRELIMINARY FALL FORAY SCHEDULE

September 9 (Saturday) — Fred Hainier Foray, Point Beach State Forest

September 16 (Saturday) — Mauthe Lake

September 23 (Saturday) — Madison area foray

September 30 (Saturday) — Pike Lake State Park

WINTER MEETING REPORTS

The February 21 meeting featured Steve Nelsen of UW–Madison showing slides of fungi he has observed in the Baxter's Hollow area in Sauk County. Steve does most of his photography there in a small part of Baxter's Hollow on the R.D. and Linda Peters Nature Preserve, belonging to the Nature Conservancy. At least 300 species have been identified from this area. Steve's slides began with non-gilled fungi — Ascomycetes, Polypores, Boletes, etc. — and then went on through the different spore-color groupings of gilled fungi. Along the way, he gave us interesting tidbits of information about each fungus, such as unusual spores, etc. Documenting the fungi of a small area seems like a wonderful idea and our club should probably think about doing similar projects.

The March 21 meeting featured Alan Parker of UWC–Waukesha giving a brief history of North American mushroom identification books. He traced popular mushroom books from the late 1800's to the present day. In addition to mentioning the usual well-known mycologists such as Peck, McIlvaine, Smith, and others, Alan's talk pointed out a number of mycologists that no doubt many of us were less aware of. For instance, the "father" of mycology in this country is Lewis D. Schweinitz, a Moravian minister, who identified several thousand species of fungi in the early 1800's. Schweinitz has a species named after him, *Phaeolus* (*Polyporus/*) *schweinitzii*, a colorful stout polypore that grows on roots and stumps of conifers.

During his lecture, Alan showed slides of pages from some of the books. I often consider older books with their line drawings and paintings to be more attractive than modern books with color photographs. One of the most attractive of these was an 1895 book by Gibson, *to Our Edible Toadstools and Mushrooms and How to* Distinguish Them. It had wonderful imaginative drawings with fairies, etc., but also good informative drawings, such as one of the *Amanita* life cycle that Alan says he uses in his classes.

Other interesting tidbits: One of the authors discussed, C.G. Lloyd, published his own mycological journal, the subscription price of which was sending him some specimens. Seems like a good pricing system. There have also been a number of publications devoted to Wisconsin fungi, such as Huron Smith's Mushrooms of the Milwaukee Region. Also, all of the species listed in the more recent Courtenay and Burdsall field guide can be found in Wisconsin, though the book unfortunately is out of print.

More information on early mycology and mushroom books can be found in "Early North American Mushroom Books", an article Alan wrote for issue 18 of Mushroom, the Journal (Vol. 6, no. 1, winter 1987–88) and several he wrote for our WMS newsletter (June '86, June '87, June '89, March '90).

Colleen Vachuska

MUSHROOM MANIA AT HEAVEN CITY

by Kris Ciombor

On April 10 Chef Scott McGlinchey wined, dined, and educated almost 60 of us at Heaven City Restaurant. He created a five-course dinner with mushrooms in every course and a scintillating wine to match each one. I wondered how this dinner would measure up to his spectacular accomplishment last year, but I needn't have been concerned …

He began with a crimini mushroom terrine served on a fresh green herb sauce with nine secret herbs that provided a piquant accompaniment to the mild brown mushrooms. Not being a full-time gourmand, I must admit that it looked like meatloaf in pea soup, but that crude comparison is no comment on the very delicately blended flavors of the sauce and the mushrooms. During each course Scott spoke to us briefly about what we were eating. In this case he commented

that the brown cremini mushroom was the staple of the U.S. market in the 1940's, but lost its popularity to the white version we now eat and is only just returning to the market. The Sanford Sauvignon Blanc was a delightful palate cleanser.

The second course was an oven-roasted stuffed artichoke with a mushroom ragout on a dijon mushroom hollandaise. This one didn't look like anything but what it was — unique and incredibly delicious! The artichoke was a tiny, tender heart scooped out and and stuffed with a mild blend of wonderful flavors delightfully emphasized by the wild and exciting sauce with mushroom powder in it. LeRoy Ciombor declared it the best part of the meal. Even Mr. Soden was seen sucking his whiskers which was surprising because he usually saves that for later. The wine was a Wollersheim Domaine du Sac that was satisfying, but not memorable.

The third course was a grilled Portabella and roasted red bell peppers on seasonal greens with a Portabella chive vinaigrette. Scott declared that when you close your eyes the Portabella tastes like steak and has quite a "hearty" flavor. It's no wonder that it is gaining in popularity. Even his peppers had a delightful smoky flavor. The grilling gave the peppers and mushrooms a surprising "anchovy" sort of texture (NOT flavor) that was refreshing. The Boeger Walker Zinfandel was appropriately hearty to compliment the course, but again was not memorable. Perhaps by this point the memory problem was mine, not the wine.

The rainbow trout on watercress with sauteed morels accompanied by porcini pasta tossed in white truffle oil with black truffles — well, you had to be there. The morels were the first of the season — what more needs to be said. The truffle oil was strong, but not over-powering; the watercress was a tongue-tingling `apertif'. This triumph was the high point of the meal in my opinion. The wine was a Sonoma Cutrer, but my memory banks were definitely folding up shop for the night by this point.

The shiitake mushroom and pecan pie with tiny little scoops of `fun' ice creams was raved about by some people, but not having a sweet tooth it wasn't my favorite. Actually, after 4 glasses of wine I don't think I would have been a good judge of much of anything. The fifth wine was a Rutherford Hill port which I vaguely remember as coming in a cute glass, but being, like the dessert, too sweet for my taste. But, certainly by that time, my memory banks had long been tucked in for the evening.

This exceptional one of a kind dinner was all to be had for the incomparable price of $26.00 (tax and gratuity not included). The luscious flight of five wines was offered for a special price of $14.00. If you haven't experienced this restaurant or Scott's artistry yet, don't hesitate. His love of what he does shows in his every creation and has made him one of the premier chefs in this part of the country.

A special thanks goes to John Steinke who arranged this magnificent repast for the second time. Many thanks, John!

SPRING FORAY

About 30 people interested in finding morels came out for our spring foray on May 20th (It was nice to see so many fairly new members.). The group met at Mauthe Lake and caravaned to the youth camp nearby for the actual foray. This spot was selected because the foray leaders had found a few morels there in past years growing near ash trees. Ash trees are fairly easy to identify at this time of year (May) as their bark tends to form diamond-shaped grooves and they are not leafed out yet like other trees. With a little practice, one can usually learn to spot them fairly readily and this seems to increase your chances of finding morels. However, it had been a cool spring and we expected the morels to perhaps be a little later than usual, so we were not sure what we would find. Fortunately, though, the morels were out. Overall, we collected perhaps a few hundred specimens of *Morchella esculenta* and *Morchella semilibera* (and one lone specimen of *M. augusticeps*), with almost everyone finding at least a few morels.

Colleen Vachuska

HOW WAS YOUR MOREL COLLECTING?

Chuck Soden, Milwaukee: I took off from work one Friday and went up to the Kettle Moraine State Forest around the Kewaskum area. Walking on the horse trails, etc., we collected only 3 or 4 dozen morels, but they were some nice ones.

David Cohen, Milwaukee: We went to Muscoda and bought some morels. After that, we went looking around the area and found a little grouping of about ten morels. That was the first time I had ever found more than one.

Sami Saad, Elm Grove: With the cool spring we had, it was a good morel season. I collected about 2 pounds of morels in the West Bend area. I also saw about 50 at Riveredge Nature Center, but I did not pick them because picking is not allowed at Riveredge.

Tom Volk, Madison: "I was in Ohio for a week and found morels in (to me) unusual places, like under living green ash and shagbark hickory, and I found a single morel under cottonwood here in Madison. I found enough to use for experiments and enough to eat as well. I missed most of the prime time in Madison because of going to Ohio to help my sister move. But students were bringing me morels from on campus, in wood chip piles and even from old stumps on Bascom Hill on the main part of the campus."

Steve Nelsen, Madison: "We had a rather disappointing morel season where we mainly look, at Wyalusing State Park in Grant Co., and adjacent places in Crawford Co. and Clayton Co., Iowa. We found over 100 *Verpa bohemica* on April 21-22, but only found any in the two best spots, and by the 29th we found only 39, same spots. This is about 1/5th of what we found last year. The first morels were seen by May 7-8th, but they were very small, and there were only a few where we look. By May 10th they were bigger, and had turned from gray to "yellow", but we could find only two dozen. On the 12th many were overmature, and we found only a couple of dozen, along with a few hybrid morels. Most of the spots we look didn't produce any by this time, but one old field produced half a dozen large ones. It is quite remarkable to find morels growing in tall grass, but they do in this field some years. We got discouraged looking in the woods, haven't been back to Wyalusing, and haven't seen anything but a couple at a time since. For morels to eat by far the most reliable spot appears to be Heck's Farm Market on US 14 west of Arena, where they were selling for $12-15 per pound this year."

John Steinke, Mukwonago: Oh, I suppose I jumped off the tractor once in a while. I found 30 here, 30 there, and collected maybe 200 total. (John says he found most of them locally among sumac, apple, and elm.)

FUNGAL BRIEFS

- Northern Michigan had a bumper crop of wild morels this year, possibly the best morel season in 20 years. Unfortunately, the oversupply of morels has driven down the price to about $6 a pound, and hurt the income of morel pickers. (recent article in the Chicago Tribune)

- Tom Volk, WMS member/foray leader and mycologist with the Forest Products Lab in Madison, was recently featured in the food section of the Wisconsin State Journal in an article "Mushroom Hunter Travels Far in Search of Wild Prey." In his interview, Tom discussed mycophagy and the fun of hunting mushrooms. (Wisconsin State Journal, March 8, 1995)

- A Montana teenager won first place in the medicine and health category of the National American Indian Science and Engineering Fair, held in Milwaukee in early April, for her work investigating fungi as a source of the anti-cancer drug taxol. Seventeen-year old Kendra Bird of the Blackfeet Indian reservation has worked for several years with a scientist from Montana State University on the derivation of taxol from Pacific yew trees. While working on the yew logs, Kendra noticed fungi growing on the trees and wondered if they might be sources of taxol as well. Using a mass spectrometer to identify chemicals produced by the fungi, she found that one of the samples appeared to have significant concentrations of taxol. A mycologist was unable to completely identify the fungus, and a search of known fungi is underway to determine if a new species has been found. If it is confirmed that the fungus does produce taxol independently, Kendra will have the makings of a patent that could pave the way for a new source of the drug. (Milwaukee Journal Sentinel, April 14, 1995)

- A fungal infection has caused the deaths of at least three Wisconsin people over the past winter and spring. Two

Clintonville women who lived on the same road died this winter of a pneumonia-like respiratory infection called blastomycosis. The same infection is also believed to have contributed to the death of former Menominee Tribal Chairman Glen Miller of Keshena in April. This infection is caused by a fungus that lives in soil with a high organic content consisting of decomposing wood products and animal waste. Ground disturbance and moisture cause the fungus to release spores that can cause the infection if inhaled. Symptoms of the infection include fever, cough, weight loss, chest pain, and lesions. Roughly 700 cases of blastomycosis have been recorded in Wisconsin since 1982, though for most people who get it, it's not a serious illness. (based on articles in the West Bend Daily News, Milwaukee Journal, and Milwaukee Journal Sentinel this past winter and spring)

- Agricultural Research Service scientists have discovered that fungal bits found in the soil, known as sclerotia, contain at least 85 natural compounds which could someday be developed into environmentally-friendly biological insecticides. The researchers believe that the chemicals isolated from the fungal bits may have been used by fungi to defend themselves against fungi-eating insects. So far, over 125 of the 200 compounds tested appear to be potential insecticides. (Agricultural Research, Jan. 1995, p. 20, quoted from INFOTRAC database)

- Giorgi Mushroom Co. in Pennsylvania evaluates alternate materials for mushroom composting and reveals that leaves can be used as an effective ingredient for composting. Sugar and lignin present in leaves substitute for the carbohydrates required for mushroom composting. The other advantages of leaves include their cheap renewability, cost-free delivery and environment-friendly characteristics. The company is currently using 500 tons of leaves annually and hopes to increase the rate to over 1,000 tons. (Biocycle, Sept. 1994, pp. 79-82, quoted from INFOTRAC database)

- Scientist at Cornell University in New York say they have developed a strain of fungus that is effective at killing common flies that torment dairy and poultry producers, yet is safe to humans. The fungus, *Beauveria bassiana*, is common and found in soil. It first was observed attacking silk worms in the 1860s and once was a cause of major losses in the silk industry. Cornell entomologists, however, began studying the fungus more closely in the late 1980s after federal legislation was adopted that tightened restrictions on pesticides used to control flies. The researchers screened several strains of fungus until in 1993, they settled on what they considered the most virulent one against flies. They then tested various media that would contain the fungus and lure flies to feed on the fly bait. Flies can pick up the fungus spores simply by walking on treated material. They spread it over their bodies inadvertently by grooming. Tests showed the fungus killed every fly that picked up the spores within five to seven days. (Milwaukee Journal Sentinel May 19, 1995)

Editor's note: The following article may be of interest to those of you that have heard the term "key council" and wondered what it meant. Also, this type of project might be something our club could get involved with in the future.

PACIFIC NORTHWEST KEY COUNCIL

excerpted from an article
by Brian McNett in MYCOINFO

For those of you who don't know what the Key Council is, or what it does, the Pacific Northwest Key Council was created for the purpose of writing and disseminating easy-to-use macroscopic keys to the fungi of the Pacific Northwest for the use of amateurs and professionals alike. As a non-profit organization, these keys are sold at cost, any profits go to create more keys and to maintain and update old ones. The Key Council is composed of both professional and amatuer mycologists from all parts of Washington, Idaho, Oregon, and British Columbia. A listing of mycological societies in the Pacific Northwest confirms that there are plenty of expert mushroomers to draw upon, and quite a lot of pent-up demand for what the Key Council does. Each Key Council member takes on a specific family, or even a specific genus and writes a key to it. For example, Ben Woo wrote the Key Council's key to *Russula*. Kit Scates did *Boletus*, then *Ramaria* (or was that the other way 'round). Jan Lindgren handles *Amanita*. Doing this, of course, takes a certain amount of expertise, and isn't a task for the beginner. To a large degree, the Key Council has fulfilled it's

original goal. This is not to say that they now have complete keys to all the fungi in the Pacific Northwest, or that the Key Council is ready to pack it in and close up shop. Far from it. However, with most of the major genera covered, the Key Council is in search of a new direction. What will that direction be? Perhaps mycological keys on CD-ROM? Mycological outreach to the Russian far east? Helping create similar organizations in other parts of North America?

THE SPECIES OF TYLOPILUS

by Steve Nelsen

Tylopilus has only a single species in Europe, but Smith and Thiers describe over a dozen Michigan species in their 1971 monograph. Spores of *Tylopilus* have vinaceous tones, and the pores are initially white to light-colored. The genus description in most books is of the type (and overwhelmingly most common) species, *Tylopilus felleus* (Fr.) Karst, which is a large, convex tan species with a strongly reticulated upper stem and white pores which get pinkish in age from the spores. It is extremely bitter, and completely inedible. I have spent considerable time trying to convince myself that specimens were the delicious *Boletus edulis*. McIlvaine says he "long ago ceased collecting for the table any *Boletus* questionable for *B. felleus*. I have been deceived so many times… I take no chances for the bitter." Other species in subgenus *Tylopilus* include the similar looking but non-bitter *intermedius* (ST) as well as *indecisus* (Pk.) Murrill and its several tan to light brownish relatives, the beautifully violet-stemmed (when young) *plumboviolaceus* (Sn.) Snell, the dark gray to black-capped *alboater* (Schw.) and *eximius* (Pk.) Sing., and the dark red-brown *rubrobrunneus* ST. *Tylopilus chromapes* (Frost) ST has a bright pink cap, dark pink scabers on the stem, and a yellow stem-base, but I have not seen it in southern Wisconsin; it rates its own subgenus *Roseoscabra*. ST's subgenus *Porphyrellus* is considered a separate genus having only two species in Europe, and is placed in family *Strobilomycetaceae*, with "Old Man of the Woods". ST report seven species in the midwest, which are dark-colored and rather slender with dark scabers on their stems, and there are several more in the west. The scabers are dark from the first, which Smith and Thiers say means they are not *Leccinum* species (where others have put them and *Tylopilus chromapes*), or *Boletus* section *Pseudoleccinum*, whose scabers don't darken; ST want only species with scabers which darken in age in *Leccinum*. I unfortunately cannot convince myself that I can tell *gracilis* (Pk.) Hennings, *pseudoscaber* (Secr.) ST, and *porphyrosporus* (Secr.) ST apart even with a microscope.

The July 1994 WMS Foray led by John Steinke was especially productive for *Tylopilus*, when we found *rubrobrunneus*, a *Porphyrellus*, and (probably) *plumboviolaceous*, as well as (of course) *felleus*.

GILLED BOLETES

by Steve Nelsen

Although Boletes have pores, two families of mushrooms which are clearly gilled, *Paxillaceae* and *Gomphidaceae*, are now included in order *Boletales*, because of microscopic similarities to the pored Boletes. For example, *Phylloporus rhodoxanthus* (Schw.) Bres. (once in genus *Paxillus)* looks just like a *Boletus* subsection *Subtomentosi* species until you see the gills, and is placed by Moser in Family *Boletaceae*. The cap cracks, the gills stain blue, and it is even parasitized by the same white *Verticillium* mold which so vigorously attacks its pored close relatives.

Family *Paxillaceae* is centered on the genus *Paxillus*, which has brown spores and decurrent gills. The large and rather common velvety brown-capped and -stemmed *Paxillus atrotomentosus* Fr. looks appetizing but is supposed to be poisonous. *Paxillus involutus* Fr. is viscid, has an inrolled margin with fibrils when young, and usually grows in sphagnum, while a duller brown one not in most guides is called *Paxillus vernalis* Watling, and is found in wet forests (including Baxter's Hollow). *Paxillus panuoides* Fr. is a stemless shelf mushroom which is obviously not very closely related to the others, and has been removed to genus *Tapinella* by Gilbert, and the only other *Paxillus* species likely to occur in Wisconsin is the stemless *corrugatus* Atk., which I have also never seen. *Hygrophoropsis* is a small decurrent-gilled, white but dextrinoid-spored genus that is also now included in *Paxillaceae*. The commonest species is *Hyg. aurantiaca* (Wulf. ex Fr.) Maire, which is in most guidebooks because it is relatively common, has rather bright orange cap and gills, and is a poisonous species which can be confused with a chanterelle, although the gills are clearly too

narrow and sharp-edged, and the color too intensely orange. The pallid *Hyg. olida* (Quel.) Metr. also occurs in Wisconsin, and was once considered a *Clitocybe* or *Cantherellus*. *Omphalotus olearis* (Schw.) Big is the only Wisconsin representative of the genus, which was also placed in *Clitocybe* formerly, also has a bright orange cap and decurrent gills when young, is poisonous, and can be confused with a chanterelle, although once again, the color is too intense, the gills are too well-formed, and it usually grows in most un-chanterelle-like clusters. Its spores are small and round to drop-shaped, but don't turn color in Meltzer's solution. It is supposed to be luminescent, although I have never found any fresh enough to glow in the dark.

Finally, Family *Gomphidaceae* has blackish spores and decurrent gills. Genus *Gomphidius* is used for dark-capped ones of which *maculatus* (Scop.) Fr. and *glutinosus* (Schff.) Fr. appear to be the ones seen in Wisconsin. *Chroogomphus* was separated from this genus, has buff to yellow colors in the flesh and gills at first, and differs in having amyloid flesh. The species *vinicolor* (Peck) Miller, *rutilus* (Schff. ex Fr.) Miller, and *flavipes* (Peck) Miller probably all occur in Wisconsin, although *vinicolor* seems the most common.

RECIPE:
CHANTERELLES LA FRANC-COMTOISE
by Pierre Dupin in a 1927 cookbook
reprinted in Honey from a Weed by Patience Gray

Freshly gathered, you clean them as best you can without washing them, leaving them whole but paring the tip of the stem. Put them in an earthenware or enameled pan on a very low heat with the lid on. Almost at once they will render some of their liquor in which they continue to cook until this evaporates, care being taken not to let them stick. At this point add a good piece of fresh butter, salt and pepper. Cook till tender, a few minutes. At the moment of serving pour some fresh cream into the pan, stir vigorously and pour the contents onto a dish. The initial cooking in their own juice is significant, a way of tenderizing a mushroom inclined to be tough.