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MESSAGE FROM THE PRESIDENT

Well, the fall mushroom season is over and except for the most ardent mushroom hunters, we've all come in out of the cold to enjoy our harvest of dried, frozen and canned mushrooms, and to reflect. This fall mushroom foray season was certainly above average with a good variety of specimens found on each foray (though perhaps not in as large a quantities as we would have liked). The weather was very cooperative, cool with plenty of rain, falling mostly during the week, but with sunshine on the weekends. The only weekend with bad foray weather was the Saturday of the mini-forays. Fortunately, the pickings were outstanding. Unfortunately, the weather turned sunny the next day causing a slight decrease in attendance at the Ninth Annual Mushroom Fair. Nevertheless, those that were there made up in enthusiasm for what was lacking in numbers. (One enthusiastic individual must have become overzealous, as by the end of the day one of our *Boletus edulis* was missing). I thank Martyn Dibben and Kris Ciombor for their time and skill organizing the Mushroom Fair. Also, thank you to all the volunteers and people who brought in specimens.

Turning our thoughts to the future, the Wisconsin Mycological Society is planning lectures and events to help keep us in touch during the next few months. Our January meeting starts things off with a member slide show, followed by a party, with a wealth of hors d'oeuvres provided by LeRoy Ciombor, who does such a marvelous job each year.

Maybe, if the weather warms up for a spell, go out and look for some of the winter mushroom, *Flammulina velutipes*. I did last February and found a few. In the middle of winter, they were delicious.

Best Wishes,  
Peter Vachuska

Greetings Mushroom Maniacs and aspiring Mushroom Maniacs,

I would like to take this opportunity to greet our new members. We received 15 new memberships at the Mushroom Fair; another member came to us via Dr. Parker's class on fungi and two more were compelled to join after talking fungi with long time members and good friends, Chuck Soden and Ray Germonprez. These memberships, that can be generated by every one of you reading this newsletter, are very important! Spread the word whenever the opportunity comes along. Don't be afraid to let the world know that there is a Wisconsin Mycological Society and most anybody can find an area of interest, that they enjoy, within the Society.

You should not give up when you have trouble identifying fungi to species. That is just part of what keeps mycology interesting. I like to think of each specimen as a mystery book; you read it and pick up clues as you go along. Usually if you can find enough clues you will figure out who did it or, in our case, what is it. The one problem with our mystery book is that many of the clues are written in a language that is foreign to us.

I hope to see you all at the winter meetings. Don't be afraid to introduce yourself. The people in the society are as interesting as the fungi.

Secretary/Treasurer  
John Steinke

ANNOUNCEMENTS

Name-the-newsletter contest: As you probably read in the last newsletter,

or can tell from the look of this one, the WMS newsletter is under new management. During this time of transition, we are especially interested in getting your input on what you would like to see in the newsletter. Also, please consider contributing any mycologically related anecdote, announcement, article, recipe, etc. Even if you don't consider yourself a writer, what you have to say will probably be more interesting than you think (We can edit it, if necessary). Send any comments or contributions to: Colleen Vachuska, P. O. Box 564, Kewaskum, WI 53040.

While we are on the subject . . . , most mushroom clubs have a name for their newsletter (other than "newsletter of . . ."), and we'd like to do the same with ours. Please give it a thought, and if you come up with a name that would be appropriate, either mail it to the Society before you forget it, or else write it on a slip of paper, put it in a safe spot, and bring it to the January 20 social. The Board of Directors will choose the best name from those submitted, and that name could be in use by the March newsletter.

Winter meeting schedule:

20 January 1993 - Members' slide show and hors d'oeuvres party.  
Please bring up to 5 slides to show to other members.  
Photographs are also welcome.  
17 February 1993 - Lecture/slide show on Gasteromycetes by Alan Parker.  
16 March 1993 - Presentation by shiitake grower, Joe Krawczyk.  
21 April 1993 - NAMA video and/or slide show.

More detailed notices will be sent later.

Membership renewals: Your 1993 dues notice is enclosed with this newsletter. Please take a minute now and send in your dues payment. If you joined at the 1992 Mushroom Fair or at one of the fall forays, your dues are paid through 1993. For those of you that belong to NAMA (North American Mycological Association) or wish to join, you can pay your NAMA dues through WMS at a reduced rate of \$12 (instead of \$15). Please note that we have enclosed an extra renewal form. Give it to a friend or acquaintance that might be interested in joining WMS.

#### BRIEFS ON FUNGI AND FUNGOPHILES

Poisonings: \* There was a rash of mushroom poisonings in Russia and the Ukraine this summer (Milwaukee Journal 8/11/92). More than 60 people were reported to have died at the time of the article. The poisonings were very mysterious as they occurred from mushrooms normally considered safe and edible. Had the mushrooms mutated or were they merely contaminated, and by what? How significant is it that a large number of the poisonings occurred in the vicinity of a nuclear power plant in the Voronezh region of Russia? There have not been any updates on the problem.

\* Most deaths from consumption of poisonous mushrooms are due to Amanita phalloides, or Amanita verna/virosa/bisporigera. We don't usually consider Amanita muscaria to be "deadly". However, the Oct. 31 Milwaukee Journal reported the death of a Michigan man from eating Amanita muscaria. A plastic bag containing some specimens of Amanita muscaria was found near the body of the man, who had been camping in the Hiawatha National Forest. An autopsy revealed that the man had eaten some of the mushrooms, which were determined by a toxicologist to be "hallucinogenic and highly poisonous in large doses."

WMS Members: \* The Sept. 4 Milwaukee Sentinel contained a 3-column article, with a picture, on John Steinke's life and mushroom loves. Most of the article, "A Mushrooming Job," was devoted to John's shiitake growing.

\* Sami Saad, biology professor at UWC-Washington County, graced the front page of the West Bend Daily News 9/11/92 with a photo and caption. He had taken his "Fungi and Man" class foraying in Lizard Mound State Park, where they collected 30-40 species of mushrooms.

Miscellaneous: \* In late 1991, a 5,300-year-old frozen corpse was discovered in a melting glacier high in the Alps, near the Austria-Italy border (Time 10/26/92, also Milwaukee Journal 8/30/92 and 11/23/92). Dubbed the "Iceman," he, and the implements found with him, are giving researchers much insight into the late Stone Age. Among the items found at the site were 2 specimens of Piptoporus betulinus strung on a knotted leather cord. The articles state that these mushrooms have long been known to have infection-fighting properties and may have been part of a first-aid kit at that time.

by Carol Czarnecki

One Saturday night in late September, after enjoying a concert at the PAC, Henry (my husband) and I were wending our way east along Kilbourn Avenue towards the spot where our car was parked. As we strolled along, our attention was captured by the sight of several small whitish objects down at our feet, trying to break their way through the dry and inhospitable soil between the sidewalk and the road. Upon further inspection we determined that these were --wonder of wonders---mushrooms! White and firm---caps dirty and cracked from their cruel surroundings, with gills that were a chocolaty brown. As I bent over and extended my hand towards these little treasures I heard someone (Henry) hissing behind me---"What are you doing? You're not going to pick those, are you???" Well, of course I was---I had to make sure exactly what they were, didn't I? So---taking some Kleenex out of my purse, I carefully plucked three of the best-looking specimens, wrapped them up, and triumphantly bore them home.

Upon checking the spore print (chocolate brown) and a few other characteristics, we determined that these were indeed *Agaricus campestris*---edible and choice! But no, we did not eat them. We had no idea what sort of influences these mushrooms might have been subjected to on Kilbourn Avenue, just east of North Water. But we thought that perhaps the Mycological Society could schedule their next foray along Kilbourn Avenue and we could all go downtown with our mushroom baskets, hand lenses and field guides and have a 'shrooming good time!

1992 MUSHROOM FAIR REPORT  
by Dr. Martyn Dibben

The Ninth Annual Mushroom Fair was held on Sunday, September 27, 1992. The general theme was Nature's Recyclers and starred club members. A nice sunny day enticed only 855 museum visitors. One hundred forty-four enjoyed the Mushroom Brunch which ran from 11:30 a.m. to 2:00 p.m.

The annual Midwestern Mushroom Photo Competition drew a whopping 184 entries (a record) compared to last year's 97 entries. This year's winners were from Illinois (Darien, Lockport); Massachusetts (Springfield), and Wisconsin (Green Bay, Madison, Menomonee Falls, Milwaukee, Nashotah, and River Falls).

Some 19 WMS and 12 museum volunteers are to be thanked for their contributions of time and talent, along with the chefs, face painter, growers, and magician. The fair generated 14 new members. The museum's gift shop sold 32 mushroom-related books that day as well. They were pleased.

The 1993 Mushroom Fair (10th Annual) should be even better, yet it will retain many of the current activities. We still need a central theme. Please try to come up with some ideas. Face painting and mushroom magic will remain along with the children's activities. Adult areas will include arts & crafts, cooking demonstrations, field and collecting techniques, fungus flicks, identification tables, mushroom growing kits, stamps, photography, poison information, morels, and WMS membership. Any other suggestions or changes?

Next year's event will be on Sunday, September 26, 1993. The deadline for next year's photo contest will be on Wednesday, September 8, 1993. Mark your calendar now and sign up now as a 1993 fair volunteer with fair coordinator Kristine Ciombor (Work: 257-6563; Home: 321-8531). State your preferred time (10:00 a.m. to 1:00 p.m. or 1:00 p.m. to 4:00 p.m.) and area of activity. It is up to you to make the fair a success.

MAUTHE LAKE FORAY  
by Dr. Sami M. Saad

Mauthe Lake was the place for mycophiles on September 19, 1992. The Wisconsin Mycological Society hosted more than 46 people at this year's foray. The weather cooperated beautifully, with plenty of rain during the week prior to the event and clear, sunny skies on the day of the foray. The participants included members of the WMS, students of my mycology class, and guests from the Lac Lawramm Conservancy volunteers. As always, Tula Erskine, Vice President of the Society, helped in leading one group on the south trail of Mauthe Lake, and I led the other group on the north trail. After two hours of foraying, the participants displayed their collections. On the tables were nearly 50 different species. Among the collections were many interesting finds.

*Leccinum aurantiacum*, *L. insigne*, *Cortinarius* sp., *Armillaria mellea*, *Tricholoma* sp., *Lactarius deliciosus*, three species of *Hericium*, *Oudemansiella radicata*, *Suillus luteus*, *Lycoperdon perlatum*, *L.*

pyriforme, *Helvella crispa*, *Galerina autumnalis*, *Clitocybe flaccida*, *Hygrophorus conicus*, *Pholiota squarrosoides*, *Laetiporus sulphureus*, *Langemannia gigantea*.

This year's picking of giant puffball was remarkable.

The Mauthe Lake foray which I led will be remembered as a successful foray in terms of fun, enthusiasm, picking and learning the wild fungi of the northern Kettle Moraine.

#### POINT BEACH FIELD TRIP REPORT by Tula Erskine

Point Beach State Forest is some 90 miles from my home (near U. W. Milwaukee). That distance usually translates into cooler and wetter climate. Yet, on Saturday, October 3, the weather was just fine for mushroom hunters. The thirty or so members that came were well rewarded with finding abundant amounts of prime *Armillaria mellea*, some *Cantherellus* species and *Leccinum* (scabers), even a few *Amanita caesaria*-like specimens. However, we found no *Catalathesma*, and fewer *Russula*, *Lactarius* and *Rozites caperata* than in the past. Still, in all, our treasures easily exceeded in number and variety those of the previous two years.

Did you notice the new trail to the west of the main road? If not, do keep it in mind for next time.

#### MONCHES WOODS FORAY by Peter and Colleen Vachuska

The Monches Woods foray for the WMS was held on a sunny Saturday morning, September 5. The sky had earlier been cloudy, but the clouds blew away. The fungi had come out earlier than usual this fall, and 30 people showed up by the Ice Age Trail on the west side of the Oconomowoc River.

Four chanterelles were collected as we entered the main woods on the trail, raising our hopes. And we were not disappointed in the number of mushrooms, only perhaps in the number of edibles. The woods bore large numbers of *Russula*, *Cortinarius* and *Tricholoma* spp., mostly left unidentified. *Helvella crispa* was fairly numerous, as was a small white jelly fungus around the bases of plants, probably *Tremella cancrescens*. Among the less numerous, but still notable fungal finds were *Bulgaria rufa* (an unusual cuplike fungus), *Inocybe pyriodora* (the sweet-smelling *Inocybe*), a *Melanogaster* species (an underground fungus), and a lone *Strobilomyces floccopus* (the old-man-of-the-woods).

So, in spite of Dr. Alan Parker's constantly being pressed to identify mushrooms, very little was found for the mycophagist. And, the four fair chanterelles found in the beginning of our foray were the prize of the edibles found.

#### MELTZER'S SOLUTION by Steve Nelsen

Meltzer's solution is triiodide anion in "knock-out drops," typical recipe: 100 g chloral hydrate, 110 ml water, 7.5 g potassium iodide, 2.5 g iodine. Two different color reactions are obtained with Meltzer's: amyloid: darkening to blue-gray to blackish blue-violet, and dextrinoid: (= pseudoamyloid) darkening to deep reddish-brown. Non-amyloid means no color change (or yellowish to light orangey brown). Meltzer's itself is orangey brown. It turns paper deep brown, so spores to be tested should be carefully transferred to glass (a microscope slide) before testing. Hydroxide destroys the iodine, so KOH can't be used as a mounting medium. A substantial heap of spores can help for seeing weaker reactions. Cell walls which show color reactions with Meltzer's solution are made of different material than most fungal tissue, which is presumably why their presence is of taxonomic significance.

Meltzer's can help to reliably tell some types of mushrooms from others. Differences in shapes of even well-marked genera are subtle enough that it takes practice to learn to recognize them. It is hard to gain this practice if you are always uncertain as to whether you have assigned your finds to genus correctly or not. Pictures in books can be confusing because the most obvious things they convey are differences in color and texture, and "excellent specimens" are of course chosen for illustration. Matching color and texture of your find to illustrations in books is often a poor way to decide what genus it is in. Meltzer's solution can help with:

Gilled Mushrooms:

(Asterosporaceae) *Russula* and *Lactarius* spores have strongly amyloid raised ornamentation, making these genera relatively easy to learn to recognize by shape. Especially the larger light colored species can look confusingly like other genera.

(Amanitaceae) *Amanita* subgen. *Lepidella*, (sect. *Lepidella*, *Validae*, *Amidella*, and *Phalloidiae*) have smooth amyloid spores, allowing distinction from *Amanita* subgen. *Amanita* (sect. *Amanita* [fly, panther, and relatives] and *Vaginata* [old genus *Amanitopsis*]). Two especially similar looking species are the amyloid *flavoconia* and the non-amyloid *frostiana*. The slimy universal veil genus *Limacella* has non-amyloid spores.

(Lepiotaceae) *Lepiota* takes practice to tell from other white-spored annulate species. Many common species (including *naucina*, *rubrotinctata*, *procera*, *rachodes*, *clypeolaria*, *acutesquamosa*, and *cristata*) have dextrinoid spores, making genus assignment easy if Meltzer's is used. Looking similar to some *Lepiota* species are some in *Cystoderma* (in *Tricholomataceae*) which has several amyloid-spored species (including *granosa*, *amianthinum*, and *fallax*), as well as non-amyloid ones (including *cinnabarinum* and *granulosum*), helping to distinguish them from mealy-capped species of *Lepiota*.

(Pleurotoid fungi) Amyloid-spored genera include *Panellus* (*stipticus*, *mitis*, *ringens*, and *serotinus*; especially for the latter, spores must be well-dried to see a color change), *Lentinellus* (*cochleatus*, *vulpinus*, *ursinus*, *omphalodes*), and *Tectella* *patellaris* (ex *Panus operculatus*).

(*Tricholomataceae*) *Mycena* is a huge, mostly amyloid-spored genus, but some species still kept in *Mycena* are non-amyloid, including *hiemalis* and *speirea* (resembling the amyloid-spored bark inhabiting *corticola*, *osmundicola*, and *setosa*), and some highly colored species (*acicula*, *adonis*, *flavo-alba*, *amabilissima*, and *minitula* = *olida*). Largent says the *Mycena*-segregate *Hemimycena* (*delicatella* and *cucullata*) is non-amyloid, while Bon says it is amyloid (sigh!).

*Armillaria* (*Armillariella* is usually re-united), *Tricholoma*, *Clitocybe*, *Collybia*, *Omphalina*, and *Marasmius* have been mostly pared of amyloid species. Segregates include:

*Leucopaxillus* (ex-*Tricholoma* and *Clitocybe*), spores with amyloid ornamentation, mostly large, light colored species with white mycelium 'usually' visible at the base of the stem (including *giganteus*, *candidus*, *albissimus*).

*Melanoleuca* (ex-*Tricholoma* and *Collybia*), with smooth-appearing amyloid spores; including *albaflavum*, *melaleuca*, *brevipes*, *grammopodia*, *cognata*.

*Hygrophoropsis aurantiaca* (false chanterelle) and *olida* (ex- *Clitocybe*) have dex- trinoid spores, and are sometimes placed in a separate family with the *Boletes*.

*Cantharellula* (= *Pseudoclitocybe*) *ectypoides*, *cyathiforme*, and *umbonata* are three rather distinct small funnel-capped *Clitocybe* with amyloid spores (which some leave in *Clitocybe*).

*Baeospora* (ex-*Collybia*) with amyloid spores, (*myriadophylla* (purple when fresh, fading) and *myosora* (tiny, on pine cones; pine-cone inhabiting look-alikes in *Strobilurus* have non-amyloid spores).

*Crinipellis* (*zonata*, *stipitaria*, and *campanella*) are ex- *Collybia* species having dextrinoid hairs on their caps and non-amyloid spores.

*Xeromphalina* (including *kaufmanni*, *campanella*, *tenuipes*) have amyloid spores, allowing easy separation from their old genus, *Omphalina*.

(*Gomphidaceae*, a gilled Bolete family) *Chroogomphus* (*flavipes*, *rutilus*, *vinicolor*) species have amyloid cap flesh, allowing their easy separation from *Gomphidius* (*maculatus*, *glutinosus*, *subroseus*), which do not.

Non-Gilled Fungi:

(Coral) The common and confusingly variable wood-inhabiting species *Clavicornia pyxidata* (once *Clavaria coronata*) has amyloid spores, and is the only ramarioid species which does.

(Toothed) amyloid-spored species include the *Hericium* (*ramosum*, *coralloides*, and *erinaceus*), *Creolophus cirrhatus*, *Auriscalpium* (*vulgare*, 'ear-pick' fungus), and *Echinodontium tinctorium* ('indian paint', apparently not known in the Great Lakes).

(Stereoid) Having a smooth hymenium define a genus was one of the poorer ideas of early mycologists, and Stereum has been fragmented to a bewildering variety of taxa on microscopic grounds. I certainly need all the help I can get in trying to figure out where things belong here. Genera retained in Stereaceae, having amyloid spores include modern Stereum (ostrea, hirsutum complex [hirsutum, complicatum, and subtomentosum are microscopically indistinguishable and thought to be only growth forms], striatum = sericeum, ochracea, fulvum); Haematostereum (sanguinolentum, gauspatum, rugosum); Amylostereum (chailleti, laevigatum); Laurilia (sulcatum); Xylobolus (frustulosus, subpileatus). Non-amyloid spores are present for Borostereum (radiatum); Columnocistis (abietina, ambigua); Cystostereum (murai). Several other old Stereum species with amyloid spores have been transferred to Corticariaceae, including Laxitextum (bicolor = Stereum fuscum) amid the small disk-shaped bark-inhabiting Aleurodiscus (oakesii, amorphus) which allows separation from their non-amyloid look-alike relatives, Dendrothele (candide, maculata, and seven other species in the North-East).

(Cup fungi) A microscope is necessary for a principal characteristic used for both operculata and non-operculata genera, whether or not the tip of the ascus is amyloid (shortened to "pore bluing"); if the rest of the ascus or other cells in the hymenium are dextrinoid, this cannot be distinguished properly without a microscope. Pore bluing is used to define Pezizaceae including Peziza, Plicaria (spherical-spored trichycarpa, nigrescens), and Sarcosphaera (crassa). Non-bluing genera including Humaria, Aleuria, Otidea, and Sarcoschypa (scarlet cups; the pores do not blue, but the red pigment is turned blue-green by Meltzer's) are placed in other families. Some non-operculate cup-shaped Ascomycetes also show bluing pores, including Hymenoscyphus (fructigenium, herbarium, scutula), Sclerotina, Ciboria, and Rutrostoeimia.

#### MUSHROOM RECIPE:

##### CHANTERELLE-EGG SCRAMBLE

contributed by Tula Erskine

2-3 cups chanterelles, cut into 1/4" strips  
4 tbsp. butter, margarine, or bacon drippings  
6 eggs, beaten  
1/2 tsp. sea salt  
pepper  
chives, finely cut  
parsley, finely cut

Melt shortening in a large fry pan. Add chanterelles and stir cook for 2-3 minutes. Cover and simmer 10 minutes. Cooking time depends on age of chanterelles, which can become tough with maturity. Use your own judgement or experiment.

Add 1/2 cup milk, mixed with 1 tsp. flour, to beaten eggs and seasonings. Mix and pour over chanterelles. Stir until not runny.

Serve with toast, biscuit, or bagel.

Note: To those of you with a particular interest in cooking with fungi, we are looking for someone to contribute mushroom recipes and/or cooking ideas on a frequent basis. Other possibilities for contributions include information on preserving mushrooms, buying mushrooms, cookbook reviews, medicinal uses of fungi, etc. If anyone is interested in doing this, please contact: Colleen Vachuska, P. O. Box 564, Kewaskum, WI 53040 [phone: (414) 626-4347]

For those of you that are primarily interested in "pot hunting," there is a new field guide out that's specifically devoted to this. It's called Edible Wild Mushrooms of North America, a Field to Kitchen Guide, by David W. Fischer and Alan E. Bessette. I have not seen it, but it was (mostly positively) reviewed in the Fall issue of Mushroom. Evidently, the reviewer felt it filled a niche in the fungal literature by focusing on the identification and preparation of edible mushrooms. The book gives "extensive descriptions" of about 100 species of edibles and 18 species of poisonous mushrooms that are likely to be mistaken for edibles. It also contains general advice on "preparing, preserving, and cooking wild mushrooms," and has 70 recipes, complete with photographs.

THE END