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MESSAGE FROM THE PRESIDENT

The Wisconsin Mycological Society, three words that can stand on their own, but together define us as a group. In preparation for this letter, I have been trying to put these three words in their order of importance, with little luck. Wisconsin is a beautiful state, a finer place to live I cannot imagine. The weather is always entertaining; but then I do not have to commute to work. The glaciers left an almost unpredictable variety of soil types and life that thrives or just barely hangs on to these soils. If I get tired of trying to figure out what the glaciers were doing, I can always drive over to the driftless part of the state and see what the glaciers did not do.

Mycological. What a word. Back in 1985 I was not sure I knew what it meant. Now I can even spell it. I was sure this was the most important word of the three, but after kicking it around as much as I have, I believe its importance is the common bond, or maybe a beacon, that it provides for our group. I do not mean to sell mycology short; it is right up there with Wisconsin and I love them both dearly.

And that is the leadin to Society. The social aspect wins because it can love you back. Of course, it does not always happen that way and everybody has their bad days, but the potential is there. Although I can only give the "Society" the title of number one when in combination with Wisconsin Mycological Society, Wisconsin people are special. Wisconsin people who love mushrooms are great. And the cream of the crop want to share their passion with others and join the Wisconsin Mycological Society.

I am not forgetting our out of state members; I just consider you locationally challenged Wisconsinites.

So in conclusion, new members and old, take advantage of every date we get together. If you have an idea for a new activity, let us know. If there is a spot you would like us to collect at, let us know. If you need to vent or have a story to tell, let the editor know. If you wish to be more active in the leadership of this Society, please let us know.

I hope you have had a great holiday season. Best wishes for 002. I hope to see you at the January social. If you are not there, you will have missed one third of what we are about.

John Steinke
WMS President

WINTER MEETINGS

- January 16 (Wednesday) -- WMS Annual Hor d'oeuvre and Potluck Social.
February 12 (Tuesday) -- WMS Lecture: Cortinarius in Wisconsin by Steve Nelsen.
March 20 (Wednesday) -- WMS Lecture: Milk Mushrooms in the Great Lakes States by Dr. Andrew Methven (Eastern Illinois University).
April 10 (Wednesday) -- WMS Lecture: Fairy Rings and Fungal Folklore by Dr. Alan Parker.

All events start at 7:00 p.m. and take place at the Mitchell Park Pavilion. Members should have received announcements with details and directions to each of the above events.

DUES REMINDER

Remember, WMS dues (\$15) are payable at year end. If you noticed that a "star" (*) preceded your name on the address label of this newsletter, it means your 2002 dues are not yet paid and you will not get your spring foray notices. Please send your dues immediately to: John Fetzter,

Secretary/Treasurer; 1309 S. 73rd Street; West Allis, WI 53214 Note that WMS dues are \$15 and that NAMA (North American Mycological Association) dues are \$32.

BRISTOL WOODS FORAY
22 September 2001 by David Menke

The day was sunny and clear for the Bristol Woods Foray, held on September 22, 2001. About 15 persons took part in the foray, including two new members. These new members were a very enthusiastic and eager bunch, and they contributed greatly to the enjoyment of the other members on this foray.

The participants split up into groups of 3 to 6 persons, and each group covered at least 20 acres of ground, so not much competition ensued, and everyone was able to collect on fresh ground.

As is usually the case at Bristol Woods, a great variety of species was found, although the edibles were not found in abundance. Timing is everything when hunting edible species, and we were somewhat late in arriving for *Grifola frondosus* and *Armillaria mellea*, though some prime specimens were found among the preponderance of over-the-hill specimens. The disappointment over the *Grifola* and *Armillaria* was partly made up for by a limited number of *Hydnum repandum*, a prime edible.

Those with a more scientific interest were presented with a good variety of specimens, mostly typical of the mixed hardwood forest. Since the topography ranged from low wet ravines to high wooded ridges, there were enough varied conditions and a range of tree species as hosts to produce the large number of species found. Thirty three species were identified, along with several not classified at the foray.

After the hunt, we gathered at the covered pavilion, ate lunch, identified collections, and got acquainted with new members.

ASTICO COUNTY PARK FORAY
29 September 2001 by Dan O'Brien

Thanks to everyone that participated in the foray at Astico County Park! There were roughly 15-20 people in attendance from both the Madison and Milwaukee areas. We were blessed with great weather that day, and were also fortunate to find a good variety of fungi, including plenty of edibles to satisfy the mycophagists. Among edible species were lots of *Armillaria mellea*, a few fruitings of *Grifola frondosa*, plenty of worn out *Calvatia*, *Hygrophorus russula*, *Laccaria*, and *Lepista nuda*, as well as a few stray *Hypomyces*, *Cantharellus*, *Hyndum* and *Hericium*. Other common genera that were found included *Cortinarius*, *Lactarius*, and *Russula*. Boletes were scarce for the most part, just *Gyrodon* and another somewhat rare species identified by Steve Nelsen as *Suillus sphaerosporus* ("round-spored" *Suillus*). This misshapen little Bolete with angular pores was apparently discovered in what is now Madison, and its range extends only from Michigan to Iowa. Peck officially identified the species.

My hope in planning this foray was to choose a site that would be convenient for people coming from both Madison and Milwaukee, and it seemed that there was a fairly decent turn out from both areas. It'd be great to do it again next year. If anyone has suggestions for another mutually convenient site, or if you are just looking for someone to go mushroom hunting with in Madison, please don't hesitate to drop me a line.

Happy Mushrooming!

SOUTH KETTLE MORaine FORAY
30 September 2001 by John Steinke

This particular foray started out as many do, with an early morning rendezvous at a local restaurant for breakfast. It is mainly spread by word of mouth, so you really do not know who will show up. On this morning we had a nice group of six of my favorite people, and one, Warren Siskoff, survived to see his 50th birthday that day. Being the only beverage available, great quantities of coffee were consumed while we were having breakfast and poking fun at Warren; we even had a birthday pie and sang happy birthday. Warren did show his age at one point when his mind failed and he picked up the tab; thanks Warren.

After such a roaring start to the day, it was on to the foray, just a few miles down the road. This was a joint foray with the Illinois club, plus Illinois members from our society were also there (yes we do accept them as members). After a short period of 'how you been' and 'what you been up to', we hit the woods in all directions with about 20 hearty souls. The pickings were good in our area for both edibles and fungi of interest,

including one very nice collection of *Geastrum triplex*. Eventually, we ran into a group from the Illinois club and every one agreed it was time to start walking back.

Once back at the road, we drove to Paradise Springs to lay out the specimens and have lunch. The picnic tables were well-filled with fungi. Everyone was very enthusiastic and there was much discussion and examination of the specimens found. For more information on the species found that day, see the enclosed list of all species found during the fall forays.

MYCOBRIEFS

by Colleen Vachuska

* Poisoning by *Tricholoma flavovirens*: *Tricholoma flavovirens* ('man on horseback') has long been considered an attractive mushroom and a good edible. Now however, a recent report in the *New England Journal of Medicine* has thrown its good reputation into doubt. Evidently, over a 9-year period, a dozen French people were poisoned after eating *Tricholoma flavovirens*, 3 of them fatally. All of the victims had eaten 3 or more consecutive meals of these mushrooms. Within 1-3 days of their last mushroom meal, all the victims became fatigued and complained of weakness, symptoms which worsened over the next few days. The victims also reported stiff muscles, red faces, nausea, dark urine, and profuse sweating. Blood tests revealed that the sick mushroomers suffered from severe rhabdomyolysis, a condition in which the iron-containing red pigment called myoglobin leaks out of muscle cells and into the blood. This is what caused the reddish urine the victims experienced. Toxins created by the breakdown of myoglobin can lead to kidney failure. To confirm that the alleged mushrooms actually caused this type of poisoning, toxicologist Edmond Creppy, at the University of Bordeaux, fed an extract of these mushrooms to mice. Two of the mice died within 72 hours, and the rest showed signs of rhabdomyolysis.

Reaction in the United States to this report has been mixed, as many mushroomers defend *Tricholoma flavovirens*/ *equestre*. The issue of whether *Tricholoma flavovirens* and *Tricholoma equestre* are really the same species has also been brought up. One interesting thing about these poisonings is that all of the poisoning victims harvested their mushrooms from beneath pine trees in late fall or winter at spots along the sandy coast of southwestern France. Could there be regional or seasonal variants of this species "complex" which are poisonous, while other variants may be safe? (*Science News* website, October 20, 2001)

* UK maps its fungus sites: The first ever "mushroom map" of the United Kingdom has been created. The list, called Important Fungus Areas, lists over 500 locations in Britain that have mycological significance for one of the following four reasons: 1) the site contains at least 5 rare species; 2) it has an exceptionally rich group of species; 3) it is an example of an important fungus habitat type; or 4) it merits further investigation. Sites listed include the classic site of Epping Forest on the outskirts of London, which has been recorded annually for over 120 years, and Curr Wood in Scotland where 11 rare species were found recently on a single visit. The principal reason for the project was for conservation purposes -- to help ensure that important fungal sites and their often-neglected species are protected. It was also done to get some sort of a handle on the number of fungal species in Britain. The best site for number of species recorded so far is Esher Common in Surrey, which lists about 3,100 species. Many well-wooded sites can have up to 300 larger fungal species. The IFA project was conceived by the well-known wildlife writer Peter Marren, and was carried out by the wildflower conservation charity Plantlife with volunteers from the Association of British Fungus Groups and the British Mycological Society. (*The Independent* (London) Dec. 17, 2001, page 8)

* Fungi may harm ozone layer: A substantial portion of the loss of ozone in the upper atmosphere is due to man-made gases, such as chlorofluorocarbons. A certain portion of ozone loss, though, is due to naturally-occurring gases, such as the methyl halide group. However, few natural sources of these gases, which include the likes of methyl bromide and methyl chloride, have been identified. Now researchers have determined that ectomycorrhizal fungi, which frequently coat the roots of plants, can produce these methyl halide gases. In laboratory tests, researchers at the University of Pennsylvania found that a gram of fungi churned out methyl halide gases at the rate of a few millionths of a gram per day. This doesn't sound like much, but ectomycorrhizal fungi can comprise as much as 15% of the organic matter in the soil of temperate forests. Field tests to measure methyl halide gases escaping from the soil are needed to determine whether fungi actually contribute

significant amounts of ozone-destroying gases. (Science News, Dec. 22 and 29, 2001)

* A man in search of fungi: What a life! Scientist Gary Strobel travels to some of the world's most exotic locations in search of fungi that may help treat human diseases. A plant pathologist by training, Strobel's career changed course when he got into trouble with the EPA for injecting 14 elm trees with a mutated bacterium that he thought might protect the trees from Dutch elm disease. Since he did not go through the proper regulatory channels to get approval before releasing the genetically engineered organisms, he was threatened with fines, jail, and the loss of federal funding for his research at Montana State University. Eventually, he resolved the crisis by cutting down the trees.

Nonetheless, Strobel's motivation to really do something useful with his research had been increased. He became very excited when someone suggested to him that he search for other sources of taxol, a successful but rare and expensive anti-cancer drug obtained from the yew tree. He said, "I'm going out to find fungi that make taxol", and within a few years he did just that, by locating *Taxomyces andreanae* in nearby Glacier National Park. This led to much interest from drug companies, and Strobel saw that here was an opportunity to specialize in mycology and receive funding for it.

Strobel now makes a couple of trips a year to particularly interesting environments to see what chemically useful fungi can be found there. In Australia, botanists guided him to a secret location to check for fungi among living fossil pine trees. In Venezuela, he was dropped by helicopter onto one of the tabletop mountains there, where he found 4 new genera of fungi in 20 minutes. In a flower growing among the rocks there, he isolated the taxol-producing *Seimatoantlerium tepuiense*. On a yew tree in the Himalayan foothills of Nepal, Strobel found the most genetically transformable fungus known, *Pestalotiopsis microspora*, which absorbs genetic material from other organisms and allows them to replicate. In the highlands of Papua New Guinea, a Huli tribesman scaled an oak tree to collect wood samples for Strobel. Among the 18 fungi found there was *Pestalotiopsis jesteri*, which synthesizes a compound with anti-fungal and anti-cancer properties.

After a "fishing" trip, as he calls them, Strobel returns to Montana with his samples. His team extracts the fungi and isolates bioactive compounds. Often, the material is sent out to a network of scientists across the US for analysis. Though no block-buster drugs have come out of Strobel's research, he holds about 50 patents on the substances he has found, and he earns revenue from licensing deals with large drug companies. (The Times Higher Education Supplement, September 28, 2001, page 22)

PSATHYRELLA 1: WHAT SHOULD BE IN IT?
by Steve Nelsen

Of all the genres, *Psathyrella* might have had the most convoluted wrangling about what species belong in it, although there are several rival candidates among the dark-spored mushrooms. Kauffman, probably the most respected American mycologist of his day, said in 1918 that as an *Agaricus* subgenus, *Psathyrella* Fries (1838) refers to a tiny genus having the type species *Ps. disseminata* Fr. It was characterized by being *Coprinus*-like, but non-deliquesting, having black spores, a membranous, plicate to sulcate pileus, slender stem, vanishing veil, and gills that do not become variegate-dotted (to distinguish it from *Panaeolus* and some species of *Coprinus*). Kauffman says that Peck described 12 species, but that he had personally only seen one other, *cretata* (Lasch Fr.), which I have not seen mentioned more recently either in the U.S. or Europe, so a different name is apparently used now. This concept of *Psathyrella* lasted in the popular U.S. literature through Graham (1944), but has now been replaced by a completely different one. Everybody calls the new genus *Psathyrella* (Fr. Quel.). Singer says (1986) that Quelet decided in Champ. Jura Vosg. (1872-3) that Fries had gotten the type species of *Psathyrella* Fr. wrong because this species "did not fit the synopsis" that Fries published (although it appears to me to fit the one Kauffman says Fries published). He therefore rejected Fries' type species and replaced it with *Psathyrella gracilis* (Fr. Quel.). That seems reasonable enough; *gracilis* fits what Kauffman lists as the synopsis for *Psathyrella* just fine (as does *disseminata*). I have not figured out what Kauffman called *gracilis* yet, but it is common enough that he must have had a name for it.

By a logical process I do not pretend to understand, other authors expanded *Psathyrella* (Fr. Quel.) into a huge genus, incorporating part of *Hypholoma* (Fr. Quel.) and all of *Psathyra* (Fr. Quel.). The original *Psathyrella* type species *disseminata*, after spending a while

in *Pseudocoprinus* (Kummer), has been reabsorbed into *Coprinus* in most modern books. This appears to demonstrate again that current mycologists don't really care about macroscopic features, since the principal reason Fries separated *Ps. disseminata* in the first place was that it does not deliquesce. Why they would completely change the definition of a Friesian genus (and pretend that the Rules of Nomenclature somehow justify it) escapes me. If one can both change the type species and eliminate the original one from a genus, the new genus can have no overlap with the old one, as occurred for *Psathyrella*. How could people want it to have the same name, and why would they devise Rules that would make this happen?

Modern *Psathyrella* has spores that vary from blackish through brown, purplish brown, and pinkish gray (so spore color doesn't help much to tell if a species is a *Psathyrella*), but apparently browns in the yellow-to-orange range are excluded. Other characteristics are a veil that varies from absent to copious and persistent (so veil characteristics don't help either), a cap surface that varies from smooth to grooved all the way to hairy (also of no use), a stem that is "usually" fragile and whitish, and complex combinations of microscopic features. This genus concept obviously has nothing whatsoever to do with what Quelet was talking about in 1872-3 (he recognized both *Hypholoma* and *Psathyra*), so calling the genus Quelet's modification of Fries's name without giving a reference is only confusing. It solved some other nomenclatural problems: *Hypholoma* was hopelessly diverse, containing both the species people want to call *Naematoloma* now, and ones that are *Psathyrella*. I have not seen what was wrong with the name *Psathyra*. Quelet used *Drosophila* for a united genus in 1886, but it was later declared to be an invalid name, although no one I have read has bothered to say why. I hesitate to think that the fact that it is used for a genus of fruit flies has anything to do with it.

RECIPE: AMA PASTA (ARTICHOKE/MUSHROOM/ASIAGO)
Greta's Version by Greta Menke

6 oz. capellini pasta
3 Tbsp. olive oil
1 heaping Tbsp. garlic butter
1 to 2 lbs. mushrooms sliced thin
2 large cloves garlic
1 tsp. dried basil or oregano
2 cans of artichoke hearts, sliced thin
1/2l cups chicken stock or canned low salt broth
1/2l tsp. grated lemon rind
2 tsp. fresh lemon juice
1/4 tsp. crushed red pepper
5 Tbsp. butter
1/2l tsp. chopped parsley
3/4 cup Asiago cheese (about 2 oz.)

Cook pasta until tender but still firm to bite. Heat 2 tablespoons oil and a heaping tablespoon butter in a heavy large skillet over medium high heat. Add mushrooms, garlic and basil or oregano. Saute until golden, about 4 minutes. Add artichokes; saute 3 minutes. Add stock, lemon juice, lemon peel and crushed red pepper. Cook until slightly thickened -- about 5 minutes. Add butter; whisk until just melted. Add pasta and parsley; toss until pasta is coated and heated through. Season to taste with salt and pepper. Garnish with lemon, artichokes and parsley. Serve in a large bowl. It can be kept warm in the oven, but be sure to cover so it won't dry out. (This was modified from the recipe in *Bon Appetit* magazine and from a San Francisco restaurant called "Cafe For All Seasons".)

Enjoy!

END