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MESSAGE FROM THE PRESIDENT

Winter is starting to lose its grip on Wisconsin. The snow is melting and patches of grass are starting to show. The talk at work is moving from ice fishing to where will we find those morels.

We had an excellent morel season last year. The seed for how good our season will be this year was planted last fall. If conditions for the sclerotia were right then, with proper moisture, soil conditions and environment, we will have another excellent year. Plan on a morel hunt this spring with Peter Vachuska and myself.

Morels are not all the club has to look forward to. We also have our annual Heaven City mushroom dining experience coming up on April 30. This is always a favorite of our long-time mushroom aficionados. We also have a microscope workshop planned for the UW-Waukesha campus on March 21. This should be interesting and informative for those of us that want to get to know the mushrooms we collect a little better. Just like seasons change during the year, our club continues to change. Each year we try several new projects, while still maintaining those that have been successful in years past. I feel that change in the club helps it to stay strong and to continue to grow. That is why I and all of the other board members are always looking for new and exciting ideas. This is the time to bring your ideas forward while we are getting ready to plan next year's events. Step forward with your ideas and help your club to continue to grow and to stay strong.

by Chuck Soden

UPCOMING EVENTS

March 21 (Wednesday) -- Microscopy workshop with professor Alan Parker at UW -- Waukesha April 30 (Monday) -- Mushroom Dinner at Heaven City Restaurant May 12 (Saturday) -- Morel Foray June 23 (Saturday) -- Annual Picnic & Business Meeting July 21 (Saturday) -- Summer Foray

Members should have received announcements with details and directions to each of the above events.

JANUARY SLIDE SHOW AND SOCIAL by Peter Vachuska

Everyone has a good time at our January wine and cheese social. In the midst of winter, about thirty people showed up on January 17th for the first of our winter meetings. Many people brought food to share, including Chef LeRoy Ciombor. Kris and Chuck were in charge of wine and cheese and produced an excellent variety of both. Bill Blank donated a magnum of expensive French champagne, and several other people made special vinous contributions.

A good number of participants brought slides for the main event. Those bringing slides this year included: David Fisher, Chuck Fonaas, Ray Lanaas, Steve Nelsen, John Steinke, and Peter Vachuska. (Forgive me if I've forgotten someone.) It is always amazing to see the photographic talents of our members.

The third purpose of the evening was more serious: A memorial to Tula Erskine, who passed away this past year. We had two of Tula's best long-time friends and admirers present as guests, Laurie Otto and Maurow Parsons. Laurie Otto provided a video taped interview that she did with Tula about natural landscaping. Also, Bill Blank brought a video tape of the WMS annual picnic from June 1993 with segments on both Tula and Sami Saad. Overall, the evening was both full and intense.

FEBRUARY MEETING by Colleen Vachuska Most of us are probably at least somewhat curious about what effect forest management has on the fungi that we like to comb the woods looking for. Fortunately, the February 15 WMS meeting gave us an excellent opportunity to learn more about this important topic. The speaker, Dan Lindner-Czederpiltz, is a graduate student at UW-Madison. His thesis topic is rather verbose as most thesis titles are: "The Diversity of Wood-Inhabiting Polyporoid and Corticioid Fungi in Northern Hardwood Forest Stands with Different Management Histories". In his research, he compared primarily 3 types of forests: 5 stands of old-growth, 3 stands of uneven-aged (the most common forest management type), and 3 stands of even-aged (as would result from a clear-cut). Unfortunately, he had to travel to the UP of Michigan to find a large enough area of old-growth. He also looked at 2 stands of thinned, even-aged trees. The design of the study was to take a 60 meter by 100 meter stand and break it up into 5 meter square quadrats and do sampling over a 2-year period.

Preliminary results from Dan's research show the old-growth as doing slightly better than the uneven-aged stands in terms of diversity, with the old-growth having an average of 21 polypore species per site, compared to 20 species per site in the uneven-aged, and 14 species per site in the even-aged. Certainly, though, this suggests that the old-growth and uneven-aged are quite similar in levels of diversity, which might be somewhat surprising. Dan said that he had actually predicted the uneven-stands would do the best, since there is some evidence that moderate levels of interference generally enhance diversity, the thought being that with no interference at all there gets to be too much competition.

That being said however, there are many species that are more common in, or found only in, old-growth habitat: Ganoderma applantum (the artist conk, probably because there are greater amounts of woody debris in old-growth), Laetiporus, Hericium, Climacodon septentrionales (which grows on large diameter maple), Panellus stipticus, Pluteus species, and matsutake (Tricholoma magnivelare), a late-successional fungus which grows by old jack pine. (From my own experience with looking for mushrooms, I know that I am more likely to find certain things near older, larger-diameter trees.) The diversity that one gets get with uneven-aged stands may be more of the form "one common species after another." Also, many species just turn up bigger and better in old-growth, such as conks with 70 spore layers.

The fact that even-aged stands came up lowest in diversity probably doesn't surprise anyone. Nonetheless, there are species of fungi that seem to prefer even-aged stands, such as Oxyporus populinus, the mossy-topped conk, and various species of Phlebia. Also, many people enjoy the open, park-like quality of even-aged stands.

MYCOBRIEFS by Peter Vachuska

- * Books from Waukesha to Harvard: Local mycologist Alan Parker, professor at University of Wisconsin -- Waukesha, has contributed a series of mycological notes by the great American mycologist G.F. Atkinson to the Farlow Library at Harvard University. Dr. Parker is a student of the history of mycology and is always on the lookout for myco-historical works. A few years ago he stumbled upon a "curious" volume in a used bookstore in Madison entitled Fungi by G.F. Atkinson, dated 1906. The contents were mimeographed notes from Atkinson's class on fungi at Cornell University. Purchasing it for \$9, Alan proceeded to look for a good home for this work. He found that it was quite rare and that the Farlow Library at Harvard (named for another great turn-of-the-century mycologist, W.G. Farlow) did not own a copy. Doctor Parker is donating the volume, giving it a good home where it will be put to good use.
- * A bit of fungus and bacteria in all of us: The LA Times reports some interesting facts to keep us from getting too aloof. Before we shun the lowly bacteria, we should consider that "Fully 10% of our dry body weight consists of bacteria." Having handled someone's `dry body weight' recently, I know this is no small amount. An average person probably has two pounds of bacteria in them. And no amount of anti-bacterial soap is going to help. Another fact brought up was that "We still share 50% of our genes with fungi." So even though we are from different kingdoms and have gone our separate ways, we're still cousins. So even if you only eat 'shrooms, you're still a semi-cannibal. ("We've Moved Up a Bit From the Center of the Universe" by K.C. Cole, www.latimes.com)

PECK'S EDIBLE AND POISONOUS FUNGI OF NEW YORK by Steve Nelsen

I recently could not resist the bargain when the Dutch publishers of reprints of Peck's Annual Reports to the New York State Legislature for 1868 through 1907 were remaindered for \$150 (for four thick hard-bound volumes, the best bargain for technical books that I have ever seen). The most famous American

professional mycologist of the last third of the 19th century was undoubtedly Charles Horton Peck (1833-1917), New York State botanist from 1868 to 1913, who although responsible for all plants, especially concentrated on fungi (which he continually "justified" in the introductions to his annual reports). He first described and named a huge number of mushrooms, as well as hosts of smaller fungi. I had not, however, realized what a mycophage he was. In his report for 1894 (the 48th) he introduced a new section in his Annual Report of the State Botanist, Edible and Poisonous Fungi of New York. Here he described mushrooms he recommended for eating or (in very few instances) to warn against, in a 110 page section plus 43 plates (making this single section much larger than almost all of the previous annual reports). Each of the 63 recommended edible species covered had a description approaching a page including a very short technical description and one in simple English that is longer than the descriptions in most modern manuals. Each species described is illustrated on a plate that shows several fruiting bodies. It also shows the appearance of a spore for each species at constant magnification (400 power), a feature lacking from the great majority of recent mushroom manuals. Unfortunately, Peck was no artist, and most of his mushrooms look like they had been turned out on a lathe. Perhaps mercifully, the original (quite crude) coloring for the illustrations is not given in the reprints I have (John Steinke has an original volume, and I have seen the coloring, which is solid watercolor wash done from a description of the color). Only four poisonous species were covered, and only one more was added, the next year. Peck's message clearly was that a great many mushrooms are edible and good, and few are dangerous. Peck's list of recommended edibles was updated almost every year afterwards. He states in the report for 1896 that he has witheld 8 edibles because the light in his office is not good enough to do the illustrations, and that he will include them in the future "hoping that soon better facilities for such work will be available" ('96, p. 82). Through 1907 he had recommended an additional 112 species. After 1894, plates in his reports showing fungi he was not designating as edible or poisonous were placed in a separate series, lettered instead of numbered. Peck's list of New York fungi (more recent genus names inserted in italics, species marked [P] were described by Peck): Stomach fungi: Lycoperdon gemmatum('07). Calvatia giganteum('94), cyathiforme('94). Morganella subincarnatum('07[P]). Bovista plumbea('01), pila('03). Ascomycetes: Hypomyces lactifluorum('05). Morchella esculenta('94), deliciosa('94), conica('94), angusticeps('94[P]). Verpa bispora (bohemica)('94). Mitrophora semilibra (hybrida)('94). Gyromitra esculenta('94), (Peck says it doesn't taste particularly good. It is now known to be dangerously poisonous). Helvella crispa('94) (Peck says that the other Helvellas are OK too[! this is dangerously wrong]). Mitrula vitellina var. irregularis (Spragueola i.) ('94[P]). Boletes: Strobilomyces strobilaceus(floccosus)('04). Boletinus (Suillus) pictus('98[P]). frostii('06), chrysenteron var. albocarneus('00[P]) [not obvious what it
is], nobilis('04)[not sure what it is: ? = separans].
Leccinum versipellis('94), scaber('94), niveus(holopus)('07), rugosiceps('06). Suillus granulatus('94), luteus('94), subluteus('94[P]), castaneus('94), brevipes('95[P]), subglabripes('97[P]), clintonianus('98[P]).
Tylopilus eximus('01[P]), larcinus('04), rubropunctus('04[P]). Other non-gilled: Polyporus (Laetiporus) sulfureus('94), Fistulina hepatica('94). Hydnum repandum('94), albidum('97[P]). Hericium coralloides('94), caput-ursi('97). Cantharellus cibarius('94), cinnabarinus('98), floccosus('98), dichotomus('02[P]) Craterellus cornucopioides('94), cantharellus (and three varieties[P])('95). Clavaria (Ramaria) flava('94), botrytes('94), cristata('94), botrytoides('04[P]), conjuncta('05[P]), (Clavariadelphus) pistillaris('04). Gilled Dark Spored: Agaricus campestris('94), rodmanii('94[P]), arvensis('94), subrufescens('94[P]), haemorrhoidarius('94, and var. fumosus[P] illust.'00), placomyces('94[P]), sylvaticus('94), silvicola ('99, mentioned), diminutivus('00[P]), micromegethus('06[P]). Coprinus comatus('94), atramentarius('94), micaceus('94). Cortinarius violaceus('94), collinitus('94), cinnamomeus (and var.

semisanguineus) ('94), corrugatus('98[P]). Pholiota praecox('95 and var. sylvestris[P]), adiposa('95), caperata('00), squarrosoides('00), squarrosa('01), vermiflua('03[P]= Agrocybe dura, acc. to A.H. Smith). Crepidotus malachius('07) Hypholoma perplexum('95[P]), incertum('98[P]), aggregatum sericeum('01[P]). Stropharia bimellata('07[P]). Psilocybe foenisecii('03). Paxillus involutus('94 [now listed poisonous?]). Clitopilus prunulus('94), orcella('94). Entoloma abortivus('01), micropus('01[P]) Pluteus cervinus (and var. albipes[P] and var. albus[P])('00). Gilled Light Spored: Amanita caesaria('94), rubescens('94), Amanitopsis (Amanita) vaginata('94), strangulata('97).(Note: Recommending eating Amanitas? There must have been very many fewer lawyers around a century ago.) Lepiota procera('94), naucinoides('94[P]), americana('95[P]), clypeolaria('00), cepaestipes('04). Armillaria mellea('94).(Note: Interestingly, he already notes an abortive form that looks like Clitopilus (Entoloma) abortivus (p. 265) and names 6 mellea varieties [A. H. Smith's group demonstrated that the abortive forms of E. abortiva are parasitised by A. mellea, and Burdsall's was investigating the reverse]) Tricholoma transmutans('94[P]), imbricatum('94), terreum var. fragrans('95[P]), portentosum centrale('98[P]), russula('01), subacutum('02), radicatum('02[P]), silvaticum('02[P]), unifactum('05[P]), hirtellum('06[P]) (Tricholomopsis hirtellus (Pk.)Sing.). Lepista personatum (and var. bulbosa[P])('94), nudum('06). Clitocybe nebularis('94), media('94), infundibuliformis('94), clavipes('95), (Armillaria) monadelpha('97), maculosa('00[P]), adirondakensis('00[P]), subcyathiformis('07[P]). Laccaria laccata (and var. striatula[P], pallidifolia[P])('94), amethystina('06), ochropurpurea('06). Collybia acervata('03), familia('03[P]), dryophila('07). Flammulina velutipes('97). (Xerula, etc.) radicata('97) and var. furfuracea[P]. Marasmius oreades('94). Pleurotus ostreatus('94), sapidus('94). Hypzizigus ulmarius('94). Hygrophorus fuligineus('95), flavodiscus('97), puniceus('98), laurae('01), pudorinus('02), laurae var. decipiens('04[P]). Camarophyllus pratensis('94), virgineus('98). Hygrocybe miniatus (and var. pratensis('94), virgineus('98). Hygrocybe miniatus (lutescens[P])('94), cantharellus('00), nitidus('04). Lactarius deliciosus('94), volemus('94), chelidonium('98[P]) distans('98[P]), gerardii('98[P]), subpurpureus('00[P]), deceptivus('00[P]), gerardif(') (02[P]), subparpareas(') (0017, mariae('03[P]), furcata('03), albida('05[P]), flavida('05), sordida('05[P]), subsordida('05[P]), viridella('05[P]), variata('05) compacta('06), earlei('06[P]), pectinatoides('06[P]), uncialis('06[P]), pusilla('07[P]).

Poisonous and Unwholesome:

Amanita muscaria('94), verna('94), phalloides('94). Boletus (Tylopilus) felleus ('94). Clitocybe (Omphalotus) illudens('95).

References: Listed as the year assigned for a report number. This is when Peck found or decided to report something, and is far more interesting to me than when it was "effectively published". Name-changers are especially interested in the "year of effective publication", which is not the year given on the cover, but always 1-3 years later, when the report in principle became available (the New York State Legislature was pretty casual about coughing up the funds to actually print the reports they received). Mushrooms were being described so fast in this period that whose name should be given precedence is frequently in question. I am especially irritated by people who change names on the basis of finding a publication that they decide is of the same species by another author that "takes precedence", to change a name that has been in use since Peck's day. I can think of few less productive activities.

48(1894), 63 spp., p. 206-309, pl. 1-39. Poisonous and unwholesome: 4 spp, p. 309-16, pl. 40-43.

49(1895) 10 spp., p. 70-78, pl. 44-48. Unwholesome: p. 79 (Cl. illudens), pl. 49.

51(1897) 11 spp., p. 300-312, pl. 50-56.

52(1898) 12 spp, p. 673-682, pl. 57-61.

54(1900) 16 spp., p. 173-186, pl. 69-76.(Note: plate I is mislabelled Edible

Fungi, but these species are not in the edible fungi set. There was no Edible Fungi section in the annual report for 1899, but plates 62-68 are missing in the Annual reports. Alan Parker's bibliography shows them as published in a collected volume, for 1895-1899 as New York State Museum Memoir Vol. 3: 131-234, plates 44-68.)

55(1901) 11 spp., p. 966-978, pl. 77-81.

57(1902) 8 spp., p. 39-47, pl. 82-84.

58(1903) 7 spp., p. 27-34, pl. 84-86.(Note: There are different plates 84 for 1902 and 1903.)

59(1904) 9 spp., p. 44-50, pl. 87-93.

60(1905) 11 spp., p. 36-44, pl. 94-103.

61(1906) 11 spp., p. 38-45, pl. 104-109.

62(1907) 7 spp., p. 135-140, pl. 110-114.(Note: The series continues through Peck's last effective year of work, 1912, extending through plate 132. Unfortunately, the Dutch reprints I bought stop in 1907 (they couldn't find enough people who would buy them at their real price, and never finished the set). Sorry I have been too lazy to go look up the later ones.)

C. H. PECK: AN OLD, BOLD, MYCOPHAGE? by Steve Nelsen

One of the standard jingles current among mushroom enthusiasts is that "there are Old mushroom hunters, and Bold mushroom hunters, but there are no Old, Bold ones". I changed my mind about the applicability of this jingle after reading some of Peck's annual reports. Peck's attitude toward Amanita muscaria (the fly mushroom) is especially interesting. He does list it as poisonous (one of only four species he singles out in his first, 1894 report), but also says some people have eaten it with impunity. On p. 312: "Some have attempted an explanation of the contradictory statements concerning this plant by supposing that its poisonous properties are not always developed, that in some localities or under some favorable circumstances it is harmless." After musing about the effects of peeling and throwing away the water it is cooked in, he gives a footnote: "Since this was written, another correspondent writes that he has eaten as many as four caps of the yellowish form of this species at one meal and without any evil consequences, and that the caps were not peeled. This makes pertinent the question, is this variety, indeed, a distinct and harmless species? It scarcely seems possible that the different experiences are explainable by reason of individual idiosyncrasy, or by variation in the properties of the plant." In the report for 1903, Peck returns to this theme, armed with a new anecdote. (p. 22-23) "In September, Mr. A. P. Hitchcock of New Lebanon reported to me a case in which a sheep ventured to try the edible qualities of the mushroom. He says: While I was gathering a few specimens of boletus in the pastures one evening last week, my cosset buck sheep, which follows me about like a dog, watched my proceedings with close attention for a time. Then, having assured himself of what I was doing, he walked to a small group of the fly amanita, which grows luxuriantly in places in my fields, and proceeded to gobble down about a dozen fair sized specimens, eating the caps as greedily as he eats lump sugar from my hand. He is still with us and in no way worse for his indulgence".... Peck then comments: "In this case as in all other cases of harmless eating of the fly amanita that have been reported to me the variety formosa is indicate.... The form having the pale yellow cap was described by Gronnermann and Rabenhorst as a distinct species but Fries reduced it to a variety. The instances mentioned above are strong presumptive evidence of its harmless character and may be taken as another point of difference between this plant and the poisonous fly amanita. Still, these two mushrooms are so closely allied in size, shape, and structure that it does not seem prudent to regard them as distinct species and the yellowish capped one as edible, till full trial and investigation has established the fact beyond question."

It should be noted that every manual (at least every one that I have seen) lists var. formosa as well as Amanita muscaria as toxic. Indeed, even Charles McIlvaine, well known as a nearly fearless mushroom eater, says (reprint of the 1902 edition of One Thousand American Fungi): "It (the fly amanita, including both yellow and red varieties, from the context) is undoubtedly poisonous to a high degree. Its juices in minute quantity, carefully and scientifically injected into the circulation of etherized cats, kill in less than a minute. A raw piece of the cap, the size of a hazel nut, affects me sensibly if taken on an empty stomach. Dizziness, nausea, exaggeration of vision and pallor result from it. The pulse quickens and is full, and a dreaded pressure affects the breathing. I have not noticed a change in the pupil of the eye. Nicotine from smoking a pipe with me abates the symptoms, which entirely disappear in two hours, leaving as reminiscence a torturing, dull, skull-pervading headache." He later goes on to say that extracting the poison with water or acetic acid or vinegar "does not destroy the poison", and that "there is no means of telling how much of the poison remains in the plant after this treatment". So, I guess cats aren't sheep, but neither is likely to be an especially good human either. Certainly in this instance it is not McIlvaine who is behaving like the "madman", but the consummate professional mycologist, Peck. Peck advocates being recklessly bold, but he lived to be reasonably old (he died at 84). I note, however, that Peck never says the he actually tried Amanita muscaria var. formosa; he just says things that would be likely to tempt others to try it.

RECIPE: GRETA'S INDEFINITE MOREL CHICKEN by Greta Menke

4--6boneless, skinless chicken breasts lcup dry rice --- long grain white or mixed wild cornstarch salt and pepper morels, dried, 1--2 (or 3) handfuls!!!

Reconstitute 1 or 2 handfuls of dried morels in a bowl of water. Be sure there is plenty of liquid. You will need at least 2 cups. You will use it later.

Fix 1 cup of rice in 1 cup of the liquid from the morels, according to usual rice directions. Put in a tablespoon or two of crumbled dried morel pieces along with the rice. Do not use minute rice.

Saute the chicken breasts in butter. Cover to steam through. Halfway through cooking time add reconstituted morels. Stir while breasts are cooking. If you don't want to use butter, put a little water or white wine in the pan and poach breasts until done.

Add 1 cup or more of morel liquid and deglaze pan. This really works better if you have more than one cup of liquid.

Thicken with cornstarch until you have a thin sauce.

Serve over rice. In this recipe you really get the taste of morels with no other spices to interfere.

MARASMIUS DISCOVERED IN WAUKESHA by Steve Mazur

As a seasonal worker for the Waukesha County Park System, I spent my spare time searching the woods for mushrooms. Cantharellus cibarius, Lepista nuda, Leccinum insigne and Boletus pallidus are but a few of the mushrooms which I found.

On one of my clandestine forays in a remote area of the woods, I saw a slight movement in the forest fauna followed by a slight popping sound. Upon examination of the area, I discovered seventeen small mounds of loose soil, 15 cm in diameter and 7 cm in height. They were arranged in a crude 3 meter circle. Excavation of the mounds revealed 8mm holes in the ground. One of the mounds had the remnants of a Marasmius cap stuck in the 8mm hole. Spore prints made from the cap identified the genus Marasmius, but not to any known species.

I set up a pin-hole camera in the area which would make images of stationary objects but not of objects which move rapidly. That following evening I heard the familiar popping sounds when I approached the area. Nothing had been disturbed. However, the film revealed (Fig. 1 [not in text version]) a crude image of what appear to be mushrooms which emerged from the mounds only to disappear upon my approach. I e-mailed Dr. Ruzamski, Society of Czech Mycology at Masayk University, the image along with my field notes.

I was astonished to learn that Dr. Ruzamski as well as other prominent mycologists in Europe were all familiar with Marasmius subitarus but never had any proof of its existence.

My photograph was the first ever taken of Marasmius subitarus which has revealed its ability to hide by popping back into the ground. The rapidity with which it opens and closes (similar to a piston in an internal combustion engine) have some speculating it to be a mycological engine, which when synchronized with other fairy rings around the world are capable of spinning the Earth on its axis. The latter is just speculation; however, it does account for the many mushroom forays which have been less than successful recently. Is it possible that other mushrooms are evolving with the same abilities?

The area which yielded Marasmius subitarus is still being observed. Research on the ability of Marasmius subitarus to hear continues. Researchers have developed a whistle which when blown, slows the reaction of the mushroom. This allows one time to sneak up and cut off its stalk before it can pop back into the ground.

The Marasmius Sonic Interrupter "tm" emits a low frequency sound (imperceptible to the human ear) and is available in Small, Medium or Large. Please indicate the size of the mushroom you wish to locate. Whistles will be sold through "Whistles for Mycologists" and available to W.M.S. members at a nominal cost beginning on April 1.

THE END