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CONTENTS

- 1) MESSAGE FROM THE PRESIDENT by Chuck Soden
- 2) UPCOMING WMS EVENTS
- 3) 1999 DUES ARE DUE
- 4) MONCHES WOODS FORAY OR WHATEVER HAPPENED TO THE FORAY LEADER? by Bill Blank
- 5) BRISTOL WOODS FORAY by Dave Menke
- 6) WHY SANTA DIDN'T LEAVE ANY WILD MUSHROOMS UNDER THE TREE THIS PAST CHRISTMAS by Bill Blank
- 7) FUNGI IN THE NEWS by Colleen Vachuska
- 8) MUSHROOM MECCA: HAIDA GWAII by Jennifer Lawlor (reprinted from Fungifama)
- 9) NOT ONLY FISH SPORT GILLS (reprinted from The Mushroom Log)
- 10) DID A MUSHROOM TAINT YOUR WINE? by Jeff Long (from the Potomac Sporophore)
- 11) RECIPE: USZUKI (POLISH DUMPLINGS) from The Dumpling Cookbook contributed by Donna Naujokas

MESSAGE FROM THE PRESIDENT

We're at that time of year when the mushroom forays have been successfully completed and our winter programs are about to begin. Did you find some mushrooms this fall that are still haunting you to identify? Sometimes it takes years to piece together enough information to finally solve that special identification problem. But that's the fun and the challenge of mushroom identification.

The WMS winter program should be very exciting this year. In March, we will have an excellent slide presentation on Boletes of the Smoky Mountains given by the very knowledgeable Steve Nelsen. The February lecture will be given by our local experts on Gasteromycetes. (I've always wanted John Steinke to slow down long enough to explain how he can tell those gems apart.)

In January, we will have our annual wine, cheese, and potluck party. That is always a highlight of my winter. There is always such a nice variety of wines and cheeses to sample. Some wines are even homemade by our members. Come out and try a few potluck dishes (you cannot go wrong as they are all good), sample some wine and cheese and make several new friends. Not only does that sound like fun but that is another reason our club is there: To make new friends.

Chuck Soden

UPCOMING WMS EVENTS

Jan. 20: Annual Wine and Cheese Potluck and Members' Slide Show. Please bring up to 10 slides to share with other members.

Feb. 17: Slide/Lecture on Gasteromycetes

March 9: Slide/Lecture on Boletes of the Smoky Mountains

All of the above programs will be held at the Mitchell Park Pavilion. Members will receive separate announcements for these events.

1999 DUES ARE DUE

Your annual Wisconsin Mycological Society membership dues are due once again. Please fill out the enclosed 1999 renewal form and mail it back, along with your check, to John Fetzer at the address given. (John is our new secretary/treasurer.) WMS dues are \$15 for a single or family membership. If you are interested, annual dues for NAMA (North American Mycological Association) are an additional \$17. Also, be sure to complete and return the project on the back of the renewal form for a chance to win a prize.

MONCHES WOODS FORAY OR WHATEVER HAPPENED TO THE FORAY LEADER?

September 19, 1998

First off, I'd like to apologize, as foray leader, for getting lost on the trail that fateful September Saturday and for arriving 45 minutes late to the lunch and I.D. session that usually follows.

It was a beautiful day; the woods were wet from a recent rain. The long trek up the escarpment to the woods above was uneventful; no chanterelles appeared. Once on top, the group of twenty to thirty foragers spread out finding very little. Ominous signs that warned hikers to "Stay on the Trail" were nailed to trees, and further ahead an area of logged out woods gave little hope of finding any mushrooms. People started heading back to their cars one by one. Others farmed out into the woods. I led a small group onward confident that the Monches Woods Trail would loop around back to the beginning.

One point of interest I was looking for was the remains of an old building that a farmer had built as a honeymoon cottage. Nothing appeared as each turn of the trail revealed just another part of the woods that now was growing more unfamiliar to me. We did find a large fallen tree full of prime artist's conk. We collected in earnest with just 20 minutes left until the time we were supposed to be back.

When the trail started rising in elevation, I realized that we were now on the Ice Age Trail and must turn around and follow the trail back to the beginning. This took about 40 minutes. Only one person had waited for us to return. He stated that everyone had eaten lunch and left. Pointing at a small pile of mushrooms by the road, he stated that not much of anything was found and that he was glad we had returned. We thanked him for his concern, ate lunch, and went over our small collection of *Agaricus* sp., *Russula* sp., etc. Another member of our group came out of the woods suddenly and asked where was everyone. Overall, I guess it was a great day for a hike and a lesson in getting lost on the trail. Hopefully, those artist's conks produced some fun later on, too.

Bill Blank

BRISTOL WOODS FORAY

September 26, 1998

At 9:00 a.m. about a dozen members of the WMS and Parkside Mycology Club met at Bristol Woods, a county park west of Kenosha. A few more joined in later in the morning. Weather was favorable, and a light rain the night before seemed to help bring out some fruiting bodies; numerous clusters of silvery *Coprinus* along the trail were particularly conspicuous. We split up into groups of 3-5 and took different branches of the well-marked trails. One trail passed the new Nature Center, a facility dedicated mainly to educational activities. As usual, during dry times, the lower and wetter areas were most productive.

At 11:00 we started identification and socializing. About twenty species were identified, with about a half dozen more left in doubt. We finally reluctantly left the pavilion at 12:15 to make room for a family group that had reserved it for an afternoon picnic.

Species List, Bristol Woods Foray, 9/26/98:

Scientific Name Common Name

Agaricus campestris Meadow mushroom

Armillaria mellea Honey

Bisporella citrina
Calvatia gigantea
Giant Puffball

Calvatia gigantea Giant Puffball
Coprinus cinereus

Grifola frondosa (syn. Polyporus frondosus) Hen of the Woods, (locally – Cauliflower)

Gyrodon meruloides (syn. Boletinus meruloides)

Hebeloma crustiliniforme

Hericium erinaceus

Bear's Tooth

Laetiporus persicinus (syn. L. sulphureus, v. alba) White Sulfur Shelf

Laetiporus sulphureus Chicken of the Woods, Sulfur Shelf

Phlebia tremulosa
Pleurotus ostreatus
Oyster

Pluteus admirabilis
Pluteus cervinus
Pluteus cervinus
Deer mushroom

Pluteus cervinus
Polyporus radicata
Psathyrella velutina

Deer mushroom

Scleroderma citrinum

Stropharia sp.

Xylaria polymorpha Dead Man's Fingers

WHY SANTA DIDN'T LEAVE ANY WILD MUSHROOMS UNDER THE TREE THIS PAST CHRISTMAS

by Bill Blank

- 1. The elves were tired of hearing that their boss is a "fun guy."
- 2. Santa's bag of presents had a plastic liner which could cause mushrooms to spoil.
- 3. Morels are in short supply this time of year.
- 4. Reindeer kept eating the mushrooms.
- 5. Santa just gives field guides.
- 6. That "Portabello fellow in the red suit" can't replace jolly old Saint Nick.
- 7. Mushrooms are low on most kids' "wish" lists.
- 8. You might have confused them with those red and white "fly agaric" ornaments.
- 9. That living Norfolk pine Christmas tree had sprouted some already.
- 10. Shiitake mushrooms might have ruined the wooden toys.

FUNGI IN THE NEWS

The portobello started it: The commercial success of the portobello mushroom in the past few years has led to a

greater variety of mushrooms being cultivated and commercially available than ever before. Farms where until recently only white button mushrooms had been cultivated are now growing brown varieties, as well as shiitake, enoki, oyster mushrooms and several other kinds of edible mushrooms. Many of the newly cultivated exotic mushrooms, particularly the Ascomycetes, are trickier to grow than the commonly grown *Agaricus* buttons. They seem to require a much closer simulation of their natural habitat. For instance, morels like the forest floor of Minnesota, northern Ohio and Michigan and so, researchers at Terry Farms, a morel farm in Auburn, Alabama had to find a way to make the dust and leaves from Alabama seem as if they were from the Midwest. They also had to create a growing environment which could simulate "spring in the mountains, complete with fog, low-level lighting, and the ground temperature and moisture that simulates a good snow melt," according to chief researcher and cultivator Rod Sorensen. In general, the lower on the evolutionary ladder a fungus is, the smaller the niche in which it can grow. For example, enoki mushrooms thrive on cedar near the snow line in the mountains of Japan and growing them requires large amounts of cedar and an environment which simulates that of the Japanese highlands. Thus, they were too expensive to grow in the United States until a cedar substitute made of pulverized corncob pellets was developed. ("After the Portobello," by Molly O'Neill, The New York Times, Nov. 4, 1998)

The evolution of wild mushroom politics in the Pacific Northwest: Ever since the market for wild mushrooms greatly expanded in the 1980's, the amateur mycological societies in the Pacific Northwest have been concerned with the impact of commercial mushroom harvesting on wild mushroom resources. These groups have had two basic strategies for attempting to protect those resources. The first approach was organised political advocacy. In the 1980's, the amateur mycological societies of the Puget Sound area formed a coalition to support legislation limiting the commercial harvest of wild mushrooms. They were largely unsuccessful in this regard, though they were successful in getting wild mushrooms labeled a special forest product and requiring buyers to keep records on the kinds and the quantities of mushrooms that they purchase. The politics of wild mushrooms ran a similar course in the state of Oregon. The second approach to protecting wild mushrooms from overharvesting is to try to generate scientificly based information which could be used to develop justifiable harvesting gudelines. This is the approach that the Oregon Mycological Society initiated in 1986 by forming a research partnership with the Mt. Hood National Forest to carry out a chanterelle harvesting experiment at the Bull Run Watershed. Since that time, other research collaborations between resource management agencies and amateur mycological societies have been created. Even though this science-based approach may seem more appropriate for amateur scientists than the political advocacy route, both strategies have in fact generated tension within the amateur mycological community. Attempts to regulate commercial mushroom harvesting at the state level have lead to some regulations on noncommercial picking, particularly on federal lands, and there are concerns that scientific data collected from research partnerships might be used in ways which will be harmful to the amateur mycologist. ("When Amateurs are the Experts: Amateur Mycologists and Wild Mushroom Politics in the Pacific Northwest, USA", by Rebecca McLain, Harriett Christensen, and Margaret Shannon, in Society Natural Resources, September 1998)

MUSHROOM MECCA: HAIDA GWAII

by Jennifer Lawlor reprinted from <u>Fungifama</u>, March 1998 via <u>Spore Prints</u>, April 1998

Last year at this time, I looked back to the previous fall and begrudged the time I spent indoors wishing I could be in the forest. I was determined not to miss another season. Unsatisfied with casual, interspersed forays, I needed more.

Recalling mushroom stories told to me by others who had journeyed to Haida Gwaii [to go commercial mushroom picking], I knew this was where I wanted to be.

When the end of August rolled around and I had to fly out of Alaska (remember the ferry strike?), I was more than a little financially insecure. Still, I was not going to give up my dream. I had heard of chanterelle picking on the islands but hadn't a clue where the sites were, or how to get to them by foot. Would there be chanterelles everywhere? Would I see a shimmering golden hue as I approached the islands from the water? I hadn't a clue. Driven by my foolish passion,

I hopped on the ferry from Prince Rupert headed toward Skidegate, Graham Island. Things would work themselves out (I hoped!)

At 4 AM we reached Skidegate, still dark before sunrise. Worry set in as I realized that once all the cars left the ferry, I would be on my own. "Uhh, excuse me, but you wouldn't happen to know anything about chanterelle picking, would you?" I asked the young woman on my right as we waited to disembark. "Well, I don't really know, but I am with some other folks who have been here picking before. I think we are headed to Skidegate Lake, did you need a ride?" Did I need a ride? Yahoo! Mushrooms, here I come...

Within hours I was setting up a temporary camp on Skidegate Lake, Moresby Island, with my new friends. This was my home for the next couple of months: a beautiful place! Just under 2 km from us were the buying stations—a total of four impermanent structures put together with young alder and blue tarpaulins or a simple extended canopy from the side of a trailer.

The buzz around mushroom camp: no chanterelles. There had been a flush early in the summer followed by a dry spell. We needed a lot of rain if there was going to be any season at all. Oh well, I was happy to be there. I headed into the forest to take a look for myself.

There were mushrooms everywhere: *Cantharellus*, *Hydnellum*, *Lactarius*, *Russula*, *Polyozellus*, and *Sparassis* to name a few genera. I headed back to camp that evening with a big grin on my face declaring: Mushrooms galore. Well, I guess not everyone there was interested in genera other than *Cantharellus*.

The rains eventually came, but either they were too early or too late, before the full moon or after the full moon, the weather was too mild or else too cool –everyone had their own theory as to why the chanterelles did not fruit in abundance. El Nino? I was continually told stories of entire hillsides glimmering with the beautiful golden yellow chanterelle. It would have been a sight to see. Perhaps next year.

I spent two months camping next to Skidegate Lake and was able to support myself (and save some money too) by harvesting chanterelles. Each day I would head into the forest fully adorned with rain gear, a knife, and a five-gallon bucket strapped to my back. Most days I filled my bucket. At the end of the day, I took my harvest to the buying station and gently poured the beautiful chanterelles into several small plastic containers carefully separated from my night's feast of blue chanterelles, or cauliflower mushrooms, chicken-of-the-woods, or pines. I loved this part of the day–surrounded by the fresh pumpkin aroma of chanterelles.

Camp life was another daily pleasure. I had heard so many terrible stories about mushroom pickers being disrespectful, competitive, and unfriendly. My experience with the pickers on Haida Gwaii was completely the opposite. There was a real sense of respect between people and toward the mushroom resource. A picker who showed up at the buying station with a button was scorned by both the buyer and other pickers—everyone wanted to maximize the harvest and it doesn't take an ecologist to realize that this requires a responsible harvest.

Chanterelle picking was a wonderful experience in so many ways: spending so much time focused on one species gave me a real sense of familiarity and kinship with it, and searching for the elusive patch was like a game and inspired my primeval hunting instinct. I was living closer to my roots, supporting myself (albeit indirectly) by harvesting a product sustainably from the forest; and perhaps most importantly, I saw and was a part of the transformation of the forest and its fungal communities. In the two months I spent at Skidegate Lake, I leamed more about fungi than I have since I first discovered the kingdom for myself. My curiosity has just been whetted; I am dreaming of the fall.

NOT ONLY FISH SPORT GILLS

(reprinted from <u>The Mushroom Log</u> of the Ohio Mushroom Society via the Snohomish County Mycological Society Newsletter, May-June 1995; the author's name was not given.)

Gill attachment is a very important character to help with mushroom ID. It is rather vague in itself, but in combination with other traits it often solidifies an ID. Moreover, some of the terms used in the popular mushroom manuals may leave you a little perplexed. We will try to define these for you so that the subject is not so formidable. For instance, in *Stropharia coronilla* and *Agaricus campestris*, both lawn or meadow growing species, the caps appear very similar. The stem is annulate and the growth habitat quite twinlike. Everything is similar including the above mentioned spore color. What then? Look at the gills: the former are **attached** and the latter are **free**. The gills of *Tricholoma* species are **notched** just before they connect to the stem, an easily recognizable trait in the field. Although gills of some species of the *Entoloma* group at times **secede** from the stem (tear away as the cap opens), they do not have the same clean notch as *Tricholoma*. If there is ever indecision between the two genera, the spore color easily settles the matter-pink in *Entoloma*, white in *Tricholoma*.

Gills of the important genus *Amanita* are free from the stem, for the most part. Some species of *Volvariella* look much like them, especially the non-annulate *Amanitas*, but again spore color settles the matter — pink in *Volvariella* and white in *Amanita*. Gills of *Clitocybe* are **decurrent** (run down the stem) only a short span in immature specimens, but as the cap becomes funnel shaped, the gills appear very decurrent. This same arrangement is also typical of *Lactarius* and *Russula* in those species that have their caps upturned in age. For this reason, all look very similar in the field and one must apply other factors for a decision. *Russulas* are very brittle, crumbling easily; *Lactarius* exudes a latex when cut or broken. *Clitocybe* has neither of these characteristics. Admittedly, more characters must come into play to solve the riddle, but the decurrent gills suggest any of these three species at first glance.

Species of *Pleurotus* have gills that run together (**anastomose**) on their usually-short, lateral stem. These gills run together so much that very near the stem, they appear "**rivulose**" meaning that they run together resembling rivers and tributaries, i.e., very broadly netted. Those shelving species of *Lentinus* that occasionally look like *Pleurotus* have very **saw-tooth** edged gills and rise to different highs and lows, i.e., one gill higher than the next, alternating in sequence. All the gills of *Pleurotus* are even in height and not sawtoothed. Gills of chanterelles run very decurrent on the stem and until closely observed, look much like the funnel-shaped *Clitocybes*. But closer observation shows that the gill edges are very blunt and have many interconnecting ridges running between them. The term "**adnate**" gills means fastened or attached to the stem. Actually, decurrent is a variety of adnate, but if the arc of attachment is short and runs down the stem by only a small amount, it is said to be current by a tooth. This condition changes as the cap expands when they become obviously decurrent. Gills that meet the stem at their innermost end only are called "**adnexed**" (or next to) and just barely attach themselves to the stem. Sometimes this is a tough call without using a lens. Gills that secede are not consistent with a species or genus. *Entoloma* seems most often involved. When the uplifting margin puts a strain on the gill connection that is either broadly adnate or fastened the full width of the gill, the tension tears the connection away from the stem often leaving lines or bits of the gill where it formerly was detached. By observing this, one may differentiate gills that are notched or even free.

Gills of *Psilocybe* and *Panaeolus* are often black spotted. Although visible to the naked eye, the use of a hand lens shows it better. These spots develop when moisture gathers black colored spores into a droplet on the side face of a gill. Gills may be **fimbriant** with a fine feathered edge or saw-toothed (as in *Lentinellus*). **Crenulate** is a term often used when these serrations are more finer toothed. So gills are important not only to fish; they form the hymeneal, sporebearing layer of a large portion of mushrooms called Agarics. Use gill attachment as a part of your tools to make IDs. Practicing it often helps uncover some mysteries for you when all else fails.

DID A MUSHROOM TAINT YOUR WINE?

by Jeff Long, <u>Potomac Sporophore</u> (3/98) via <u>Spore Prints</u>, May 1998

Armillaria mellea and Quercus suber? Yes, it's very possible that the last time you had a bottle of wine that was "corked," or afflicted with a musty odor and/or a woody, funky taste, a honey mushroom was the culprit. The world's cork production comes from a regenerative layer, the cambium, of the oak tree known as Quercus suber. About every decade or so, starting from the age oy 30 to 40 years, the bark (also regenerative) of this species of oak tree is removed,

and the cambium layer is stripped from the tree. These cork boards are then left outside approximately 6 months to season. Thereafter, the boards are processed, and most of the wine corks with which we are familiar are punched out, classified, washed, polished, and branded.

Although a cork can also be affected by off-odors picked up during later processing from products used to sterilize corks, many wine and cork experts believe that *Armillaria mellea*, the honey mushroom, is the main culprit. This fungus is prone to attact trees growing in soil with poor drainage, humidity being its preferred element, but it typically affects the bark and cambium layer only to a height of about a foot up from the ground. Although that part of the cork layer on the tree should not be used for making corks, the piece-workers who typically strip the cambium layer even go so far as to strip that layer underground in order to get more cork board.

Despite the seasoning and sterilizing that take place thereafter, a problem may occur when the finished cork is placed in the filled bottle of wine, as the cork then is normally in contact with the wine. Since the surface of the cork consists of an enormous number of cells that have been cut in the punch-out process, the cork's surface contact with its immediate environment is much greater than that of a perfectly smooth surface. Each microscopic cork cell is a microcontainer, and cork easily takes odors from its environment. Unfortunately, the wine in most bottles of wine is similarly susceptible to adulteration or contamination. To the bane of wine producers almost everywhere, all too frequently this results in "corked wines." Although a dish containing honey mushrooms may be fine to consume with your favorite bottle of merlot or chardonnay, the same wine with its problematic cork may already have had an unhappy encounter with the same mushroom!

RECIPE: USZUKI (POLISH DUMPLINGS)

from The Dumpling Cookbook contributed by Donna Naujokas

3-1/2 cups all-purpose flour, plus additional flour for shaping uszuki

2 eggs

1 cup water

1 teaspoon salt

• 1. In a bowl, mix together flour, eggs, water, and salt to make a stiff but workable dough. Remove to a floured board and knead until the dough feels smooth and satiny, about 5-10 minutes. Form the dough into a ball. Cover it and let it rest while you make the filling.

FILLING

1/2 pound dried imported mushrooms

1 onion

1 clove

pinch of salt

1 stick butter

1 medium onion, finely chopped

1/4 teaspoon thyme

1/4 pound fresh mushrooms, finely chopped

1/2 cup fresh breadcrumbs, from dark bread if possible

1 tablespoon fresh dill, finely chopped

1 teaspoon salt

several grindings black pepper

7-8 quarts salted water

TO SERVE

1/2 stick butter, melted

sour cream (optional)

- 2. Simmer dried mushrooms with onion, clove, and salt in a quart of water for 1 hour.
- 3. Drain simmered mushrooms and wash them carefully. (Reserve the broth for soups or sauces; strain it through cheesecloth.) Discard the onion and clove. Chop the mushrooms finely.
- 4. Melt the butter in a skillet. Add chopped onion and thyme and saute until soft.
- 5. Add all the mushrooms, bread crumbs, dill, salt, and pepper. Saute, stirring often, for 15 minutes. Taste for seasoning and adjust if necessary. Let cool before using.
- 6. Cut the dough into 4 parts. Cover 3 parts while you roll out the fourth on a well-floured board until it is very thin, about 1/16 inch thick. Cut out circles or squares with a 2-inch cookie cutter.
- 7. Place 1 teaspoon of filling on each circle. Pinch the edges together to form a half moon. Make sure the edges are well-sealed. Repeat until all of the dough and filling are used. As the uszuki are made, place them on a well-floured cookie sheet, without touching each other. Cover the filled cookie sheet with a flour-dredged towel. They can stand for several hours in a cool dry place (or can be frozen at this point for future use).
- 8. Bring salted water to a boil and drop in the uszuki, about a dozen at a time. Simmer them until they float to the top.
- 9. Remove the dumplings with a slotted spoon and place them in a buttered oven-proof dish. Keep warm in a slow (250°) oven until all are done.
- 10. Before serving, pour melted butter over uszuki, and pass a bowl of sour cream.

Makes 80 to 90 uszuki. Also, instead of boiling, saute the dumplings in butter until golden brown on both sides. This method is good for cold leftovers.