

Spring 2005

THE NEWSLETTER OF THE WISCONSIN MYCOLOGICAL SOCIETY

March 2005

Volume 22 Number 1

- 1 MESSAGE FROM THE PRESIDENT by Chuck Fonaas
- 2 WMS EVENTS
- 3 POINT BEACH FORAY REPORT by Chuck Soden
- 4 MADISON INTEREST GROUP FALL MUSHROOM DINNER REVIEW by Lisa LaBissoniere
- 5 JANUARY SOCIAL
- 6 CHEESEMAKING CLASSES
- 7 REVIEW OF THE DINNER AT ELLIOT'S BISTRO February 7, 2005 by Steve Shapson
- 8 FEBRUARY MEETING REPORT: STEVE NELSEN on MUSHROOMING IN JAPAN
- 9 ANGELS OF DEATH by Colleen Vachuska
- 10 MYCOBRIEFS by Colleen Vachuska
- 11 BOLETUS SECTION BOLETUS, SUBSECTIONS CALOPODES AND RETICULATIS by Steve Nelsen
 Subsection CALOPODES
 Subsection RETICULATI
- 12 RECIPE: Spinach and Mushroom Pie by Barrett in Chicago

MESSAGE FROM THE PRESIDENT

Spring has sprung, the grass has riz, I wonder where the mushrooms is? Well, it doesn't go exactly like that. Besides, as of this writing, Spring hasn't been heard from, my grass looks something like mulch and the mushrooms, well... Have no fear! Somewhere out there the flowers are ready to blossom, the morels are ready to spring forth, and the warm days are just around the corner! Yeah, right. This is Wisconsin folks and this is standard operating procedure.

In truth, spring is just around the corner and soon I'll be out there not finding any morels. As I write this, I am anxiously awaiting our lecture by Dr. Cox. Perhaps he can help. Then again perhaps it's not fair to place that kind of burden on him as I do seem to be a hopeless case.

Well, the winter lectures are going nicely and soon we will be having a planning session for our upcoming season of forays. I'm told that a mushroom dinner is again in the offing at Heaven City Restaurant, also, so there really is reason to be optimistic. Spring can be such a frustrating time of year around here but preparations go on and my spirits rise. Ah, somewhere out there, there really is a morel with my name on it. (Probably a very small one.)

Before I close until next time, just one other small note. Whenever the situation arises and I'm called upon to explain just what the Mycological Society is, I am surprised by the reaction. I usually expect raised eyebrows

or some sort of perplexed look. On the contrary, people usually show a great deal of interest and most of the time they feel compelled to relate their mushroom stories. I recently had a situation just like this and so thought it a good time to remind everyone to spread the word about us. There are many more mushroomers out there than I thought. So, wear those t-shirts (when it gets warm in August); talk it up. Let's spread the word! See you soon.

by Chuck Fonaas

WMS EVENTS

April 20 (Wednesday) -- Dan Czederpiltz will speak on Collecting Fungi at the Highest Point in Belize: Adventures at Doyle's Delight.

SO MANY SPECIES, SO LITTLE TIME

It has been estimated that there are about 1.5 million species of fungi on Earth, of which only 5% to 10% have been discovered and named. In comparison, about 90% of the world's 300,000 species of flowering plants have already been described. Thus, mycological researchers have a good chance of finding a new species. Between 1980 and 1999, an average of 1,100 new fungal species were found and described every year. Last August, Dan Lindner-Czederpiltz, of the Forest Products Lab in Madison, was involved in an expedition to Belize in search of new species of fungi. Two other mycologists and several other scientists were involved in this trip to a remote ridge in the Maya Mountains called Doyle's Delight, named for its resemblance to the prehistoric setting of Arthur Conan Doyle's novel, "The Lost World." This myco-expedition was the subject of an excellent feature article, "The Fungi Hunt: So Many Species, Ripe for Finding," by Bruce Barcott, in the New York Times, Sept. 7, 2004. Here are a couple of quotes from the article:

"During the Doyles' Delight expedition, Dr. Czederpiltz could often be found scraping the undersides of rotting logs with a pen-knife. His colleagues traveled low and slow through the jungle. Dr. Czederpiltz moved lower and slower.... "

"This jungle is full of fungi," Dr. Czederpiltz said as he crept slowly down a steep ridge. "It's all around us. If you removed all the trees and soil and left just the fungi behind, you'd still be able to see the outlines of the trees and soil."

On April 20 at the Mitchell Park Pavilion, Dan will be telling us about his field trip to Belize. We could all use a little armchair adventure, so come join us, and learn about a wonderland.

May 16 (Monday) -- Mushroom Dinner at Heaven City Restaurant. A flyer with more information will be sent out soon.

POINT BEACH FORAY REPORT

by Chuck Soden

Another cool breezy day for the Point Beach Foray on October 2. You never know what to expect there. One year we were making snowballs by the end of the day. It does not matter what the weather, the mushroom hunting is always surprising at Point Beach.

It had been very dry, but we were still able to fill several tables of specimens. The most striking mushroom, *Lactarius paradoxus*, bled a vivid blue that almost took your breath away. *Paxillus atrotomentosus* with its fuzzy stem was found in several collections.

It was disappointing that we didn't find our usual bounty of edibles, but the sweetness of Steinke's homegrown watermelons could only be matched by the sweetness of being with old friends.

MADISON INTEREST GROUP FALL MUSHROOM DINNER REVIEW

by Lisa LaBissoniere

The Madison Interest Group of the Mycological Society, in conjunction with the Culinary History Enthusiasts of Wisconsin (CHEW), held their Fall Mushroom Dinner on Thursday evening, October 21, 2004, at Morels Restaurant in Middleton, WI. Attendance at the dinner totaled 33 people. The Chef prepared a sumptuous four-course meal starting with a terrific mixture of forest mushrooms in a puff pastry with roasted shallot cream. The next course was a salad of farmers cheese polenta with hen of the woods mushrooms, organic greens and balsamic vinegar. The entree included chanterelle mushroom and Wisconsin duckling strudel accompanied by a gratin of Yukon gold potatoes with morel mushrooms, roasted rutabaga with crimini mushrooms, and a sherry-laced mushroom broth. The meal ended with a wonderful tart of roasted pine nuts and shiitake mushrooms with bourbon and pumpkin ice cream. The Chef graciously put in an appearance near the end of the meal to receive our applause and appreciation. He also answered questions about his sources for the various mushrooms used in the diverse menu at Morels. Our thanks to the folks at Morels for making the second (annual) dinner a delicious success! To be included on the mailing list for next year's Fall Mushroom Dinner please send an e-mail to mlabiss1@aol.com.

JANUARY SOCIAL

On January 19th, a full house met to share food and stories. The January slide show and social is always a popular event. Only three people brought slides to share this year, but the quality was exceptional. They were David Fisher, Eric Schmidt, and John Steinke. The photos were lovely and the food wonderful. Chuck Soden and Kris Ciombor picked out a fine selection of wines and cheeses. Thanks to LeRoy Ciombor who brought hors d'oeuvres and a special Thank You to *Robert Kaplan* who brought the smoked salmon. Many, many members filled in the gaps with a marvelous array of tasty tidbits. And a good time was had by all.

CHEESEMAKING CLASSES

Betsy True hosted Steve Shapson's Cheese making seminar three times at her home this past winter: November 20, January 29, and March 5. Here's what she had to say about the second and third classes.

"It was pretty successful. I had 13 people (several people were referrals) and I think most left excited to try it at home. Having a kit is the key. Everyone took home an aging container with two molds, and cultures to use with one gallon of milk. The text/book/presentation portion was good, the hands on portion really brought people to life. Everyone got to take home one fresh cheese round to age.

"Steve shared two different aged Stiltons and two different aged Camembert rounds. He also served maitaki canapes and some home brewed wines, I had a couple bottles of Chardonay."

"The third cheesemaking class was held March 5 at my house. Steve Shapson demonstrated the making of Brie from the inoculation to putting the curd in molds. He served Brie and Stilton to an unusual class including microbiologists, wine brewers, a representative from the FDA, a person studying commercial cheese making and several food enthusiasts. All three classes filled (12 each class), but this one was particularly interesting because of the contributions of the knowledgeable participants. Steve's presentations are practiced and informative, and with the kit and list of sources, allow an amateur to begin to make cheeses on their own. More information about this can be found from Steve at steveshapson@hotmail.com or on his website at the address <http://www.thecheesemaker.com/>"

REVIEW OF THE DINNER AT ELLIOT'S BISTRO

February 7, 2005 by Steve Shapson

REVIEW OF THE DINNER AT ELLIOT'S BISTRO by Steve Shapson

This was our first dinner at Elliot's Bistro, a French style restaurant, on Milwaukee's trendy east side. Chef, and owner, Pierre went out of his way to provide our group with a great dinner.

The interior of the restaurant really makes you feel like you're in France. Brightly colored walls of quaint scenes and wall decor adds to the ambience.

Even though hors d'oeuvres and wine were not included in our initial contract price, it was a nice surprise to be offered several different hors d'oeuvres before dinner. While at the bar, we were served stuffed mushroom caps, homemade crispy sweet potato chips, cheese/grape combinations and brioche.

For dinner, our first course was a hearty cup of pureed cream of mushroom soup. It was full of flavor. That was followed by salad Pornic (fresh

mushrooms, peppers, olives, lemon dressing). The salad was light and helped clear the palette. We were offered complimentary wine, both white and red. The wine was delicious.

Our next course was a mushroom medley called Mushroom Provencale (assorted mushrooms sauteed-garlic-shallot-provencal herbs). It was full of flavor.

Unlike some previous WMS dinners, we had a choice of entree and dessert. The three entrees available were Chicken ala Normande, Beef Bourguignon, or Grilled Salmon with Bearnaise sauce. Each entree included potato gratin and tiny veggies. Comments from those attending were that all three choices were excellent.

We also had a choice of desserts; Creme Brulee, Chocolate Mousse or Tarte Tatin (apple). I had the Mousse, which was beautifully thick and rich. I tasted the Creme Brulee; excellent.

Since mushrooms were not really in season this time of year, I think Pierre did a great job of incorporating our friendly fungi into the menu. I'd like to see what he can do when mushrooms like Morels or Chanterelles are in full season.

Elliot's Bistro
2321 N. Murray Ave
Milwaukee, WI 53211
(414) 273-1488
<http://www.elliotsbistro.com>

FEBRUARY MEETING REPORT: STEVE NELSEN on MUSHROOMING IN JAPAN

On Thursday February 17, 2005, Steve Nelsen showed us slides of his mushrooming activities in Japan. Steve outlined trips to the Kanazawa area as well as Kyoto and the surrounding areas near Osaka. As a guest of the Japan Advanced Institute of Science and Technology this summer, he was shown many of the region's attractions including visits to gardens and other natural areas. The majority of the slides were of his trip, though some were of previous trips. Among the highlights were:

The Kenrokuen Garden outside of Ishikawa Castle. This is one of the top three gardens in Japan having been finely manicured continuously since the 16th century.

Kingdom of Mushrooms (I won't try to give the Japanese) was a large outdoor mushroom store with fish restaurant and large mushroom farm where the owner gave Steve and his escorts a tour of the operation.

Hokkaido shrine and other natural areas in Sapporo provided many mushroom finds as well as the shrine itself.

Steve photographed a mix of fungi with global distribution as well as some found only in Japan. The bulk of the photos were of unknown species. (He was after all, traveling on business, without his tools and often in places where he was unable to pick or even step off the path.) As always Dr. Nelsen gives an excellent lecture with beautiful slides.

ANGELS OF DEATH by Colleen Vachuska

The 2004 mushroom season was a tough one for the Japanese. In the fall of 2004, at least 55 persons became ill, and 17 died from an acute brain disorder, evidently brought on by eating the innocuous-looking *Pleurocybella porrigens*. This small, white *Pleurotus*-like fungus, called "sugihiritake" in Japanese, is often known as "Angel Wings" in English. It grows on the stumps of pine and cedar trees. This mushroom has been eaten in Japan for centuries, but experts say that hot weather and heavy summer rains could have caused changes in its chemical composition that would make it more dangerous, perhaps increasing any toxic components. The 2004 mushroom season saw a bumper crop of angel wings. Many specimens were significantly larger than usual. Normally, angel wings grow to 4-5 centimeters, but this past season, many grew as large as the palm of an adult's hand. So, it is also possible that people were eating more of these mushrooms than usual. All of the victims of this brain disorder were in their 50s or older, and most had kidney problems. The disorder which the victims contracted is called acute encephalopathy and symptoms include seizures, disturbances of consciousness and Parkinson-like problems. This disorder occurs when a person is infected with a virus or bacteria, and a toxic substance enters the bloodstream. One possible explanation for the concentration of cases in persons with weak kidneys is that these victims were unable to expel toxic substances. Recent scientific experiments have demonstrated the apparent toxicity of the mushrooms. A large percentage of mice injected with a prepared extract from the mushroom died, as did a large percentage of those eating boiled mushrooms or raw mushrooms dissolved in water. The toxin is described as water soluble and resistant to high heat. (miscellaneous sources including Japan Times, October 26 and 29, 2004, No To Shinkei, Dec. 2004, Asahi Shimbun, Nov. 30, 2004; and The Shroomery message board)

Pleurocybella porrigens is a quite common fungus in our area. It often does not attract attention or make species lists because of its small size and thin flesh. It was generally believed not to be harmful, and I wouldn't be surprised if some WMS members have eaten it. But because of the severe consequences involved with this poisoning (and the small benefit in its consumption), it is definitely a mushroom to stay away from.

MYCOBRIEFS by Colleen Vachuska

* FIGHTING FUNGI: Just like other organisms, fungi must spend much of their

lives searching for food. This means competition between fungi over food, whether it be dead wood, a pile of leaves, or a piece of stale bread. Professor Lynne Boddy of Cardiff University in Wales has been studying the "fungus wars" for more than 20 years. Researchers at Cardiff "arrange" fights between different species of fungi. They set up experiments in which trays of soil or dishes of agar are inoculated with different fungi. As the fungi grow, their mycelia advance toward each other. "If you take a dead branch from a tree or from the forest floor and cut a section through it, you will see elaborate patterns of black or even orange lines," says Professor Boddy. "These mark the boundaries between the territories of individual fungi growing in the wood - they are the battlefronts where the mycelia have been slogging it out. "What are the possible outcomes of these fungal wars ? "One scenario is like hand-to-hand combat," Prof. Boddy says. A hypha of one fungus coils around a hypha of the other and penetrates it. This is called mycoparasitism. Other battles involve chemical warfare, for which there seem to be two main strategies. One strategy involves the subtle release of chemicals, which results in deadlock or one of the species retreating. The other involves a massive release of powerful enzymes that destroys the opponent's hyphae very quickly. Chemicals released by the fighting fungi can attract insects, such as springtails, who burrow into the zone where the mycelia are interacting. (The Independent, London, Feb. 2, 2005)

* COULD FUNGI HAVE CAUSED THE DEMISE OF THE DINOSAURS?: There is a new theory in the endless and intriguing mystery of what caused the demise of the dinosaurs. It is believed that a massive die-off of life on earth began after a meteor crashed into the Yucatan peninsula about 65 million years ago. Scientists have found evidence that there was a significant increase in the fungal population after the meteor collision. Dr. Arturo Casadevall of Albert Einstein College in New York speculates that this large increase in fungal spores in the atmosphere may have overwhelmed animals' immune systems, particularly cold-blooded animals, which are what dinosaurs are thought to have been. Warm-blooded animals and birds would have had an advantage in that their body temperatures are too hot for fungal infections to easily take hold. Casadevall came to this hypothesis when he wondered what was the advantage to being warm-blooded when warm-blooded animals have much greater energy needs than cold-blooded animals. He also noted that fungal infections are often deadly for plants, fish, and insects, while usually having a limited affect on mammals. Problems with Casadevall's theory are: no one knows for sure whether dinosaurs were cold-blooded or warm-blooded, and many smaller cold-blooded animals such as lizards and frogs did survive the mass extinction. However, fungal infections may now be playing a role in the current worldwide decline of amphibians. (Boston Globe, Feb. 22, 2005)

BOLETUS SECTION BOLETUS, SUBSECTIONS CALOPODES AND RETICULATIS
by Steve Nelsen

BOLETUS: SECTION BOLETUS

Smith and Hesler's diagnosis for Section *Boletus* of the genus *Boletus* (The *Boletes* of Michigan, 1971) is: Stipe (a fancier word for stem) finely to conspicuously reticulate at least at the apex (top). If the stipe is not reticulate, then pores red to dark brown before maturity; basidiocarps (a fancier word for mushroom) often very robust. They go on to say that some *Boletes* with reticulate stems belong other places, without mentioning *Tylopilus felleus*, the usual confusion problem for amateurs. They probably cannot believe that anyone would be silly enough to confuse a *Boletus* and a *Tylopilus*. Pardon me, I do it frequently.

Subsection CALOPODES

has tubes yellow when young, taste usually bitter to disagreeable, stipe finely reticulate over apical portion (at the top) at least. It includes a manageable four species in Michigan that in S&Hs key are separated by cap color: *B. calopus* Fries (1821) [olive to yellow brown], *speciosus* Frost (1874) [rich rose-red], *peckii* Frost in Peck (1878) [red, fading to brown; stem brighter than cap], *inedulis* Murrill (1938) [whitish to pale brown], and *pseudopeckii* Smith and Hesler (1971) [ferruginous red, fading to tan].

We find *B. speciosus* in the oak opening along Marsh Creek at Walking Iron.

As discussed in the Newsletter, WMS 20/3, September 2003, *B. rubissimus* was described by Smith in 1973, too late for the monograph, but also belongs in Subsection Calopodes. The description includes: Cap deep pink, context pale yellow, only weakly to not bluing, pores yellow, stain graying blue, stipe yellow above and finely reticulated there, red and pruinose lower. We found this species in the same area of Mauthe Lake that we found *B. vinaceobasis*, which is another good area for *Boletes*.

Subsection RETICULATI

has a reticulate stem, and the microscopic feature of pleurocystidea with distinctly yellow content in KOH. There are, however, only two species in Michigan.

B. ornatipes Peck, 1878. Yellow pores, yellow context, yellow stem, and yellow tones developing in the pileus. Smith and Hesler call it one of the most easily recognizable *Boletes*, saying that it could be confused with an old specimen of the following species, which had turned unusually yellow.

B. griseus Frost in Peck, 1878. Cap pale gray overall, with appressed darker fibrils, pores and context pallid, sometimes yellowing in age. We found a poorly developed dried-up mushroom that may be this species at Walking Iron in 2003, but have not seen it since.

RECIPE:

Spinach and Mushroom Pie by Barrett in Chicago

RECIPE: Spinach and Mushroom Pie

10 oz. spinach, either frozen or fresh, washed and stems removed
8 oz. sliced baby portabella mushrooms
1 1/2 cups ricotta cheese (I use low fat, you can use whatever you want)
1 cup grated Parmesan divided into two quarter-cup and one half-cup portions
1 cup breadcrumbs
3 eggs
1/2 stick softened unsalted butter
1 tblsp olive oil
salt, pepper
1 tablespoon dried basil
1/3 cup feta cheese
1/4 cup sour cream or creme fraiche
pinch of nutmeg

Mix the softened butter, 1/4 cup of parmesan and breadcrumbs together. Press into the bottom of a 9" pie pan, smoothing and evening mix out. Put pie pan in the refrigerator for at least 10 minutes.

Saute spinach in a pan with 1/2 cup water until wilted (or thawed and warm if you used frozen). Drain. Saute mushrooms in 1 tablespoon olive oil. Salt and pepper to taste. Drain, mix with spinach. Set aside.

Combine eggs, ricotta, sour cream, 1/2 cup Parmesan, feta, dried basil, and nutmeg together and stir until smooth and well mixed. Salt and pepper to taste. Add spinach/mushroom mix. Pour whole mess into pie pan previously prepared. Sprinkle last 1/4 cup Parmesan on top.

Bake in 350 degree oven for 45 minutes. Let cool one hour before slicing. Serve warm or cold.

END