



Symbiosis[©]

The newsletter of the Prairie States Mushroom Club

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<http://www.geocities.com/iowamushroom>

2009 Spring Forays

PSMC Spring forays provided delightful experiences for more people than ever. It was especially delightful seeing people of all ages fascinated by the wonders of the woods. Overall 100+ people have already attended PSMC Spring events including our talk after the Roberts Creek foray and cooking class at New Pioneer Co-op after the Cou Falls foray. Everyone from 8 year-olds to octogenarians showed a healthy respect for nature and interest in its many treasures. There was often laughter when people proudly returned with very full looking bags that were actually full of trash removed from the woods. Of course people were proud of finding many interesting and delicious fungi too. The following are samples of pictures and information gained from our four Spring events.

Roberts Creek, May 2nd:



Bob Scarth photographing Devils Urns



Marla Merts showing Morels to forayers

There are thousands of acres of good morel mushroom woods near Roberts Creek on Lake Red Rock. Maybe there are a thousand morel hunters who visit those woods too. Still our host, Marla Mertz, Marion County Naturalist, located some fresh young morels the minute we stepped into the woods. This was perfect for the novices to see what morels looked like and for photo ops. Soon bright red scarlet cups, miniature pin-wheels and mysterious dark Devil's Urns were found. Young and old alike were off on a treasure hunt.



Group attending mushroom presentation

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Deadly Mushroom Toxin Exposed

PSMC member, Linda Scarth, found an article by Rachel Ehrenberg titled “Deadly Mushroom Toxin Exposed” on the web. It’s about a previously unknown mushroom toxin that changes how we may view *Russula* as a genus. It was commonly thought that digestive poisoning was probably the most danger that species in that genus might pose. Potentially deadly *R. subnigricans* proves that thought wrong. Another frightening aspect is that several very similar species of red and black staining *Russula*, including *R. subnigricans* are both common and abundant in America, though Live Oak which that particular species grows with is not as common around Iowa.



Photo of *R. densifolia* by Michael Wood found at http://www.mykoweb.com/CAF/species/Russula_densifolia.html

Fortunately, around here, these large white *Russulas* are definitely considered as not edible and their fowl smell

doesn’t entice. Still, the Japanese variety of *R. subnigricans* has been known to be poisonous for decades. In 1986, David Arora in Mushrooms Demystified said of *R. subnigricans*, “The rank odor is hardly enticing and the Japanese version is extremely poisonous according to mycologist Tsuguo Hongo.” (p.90)

The most startling aspect of Ehrenberg’s article is the unique, insidious aspect of the deadly toxin it describes. The following paragraphs

from Ehrenberg’s article are excerpted with permission from Science News.

A toadstool toxin that spurs convulsions, nausea, impaired speech and muscle stiffness — and has led to several deaths in Japan in recent years — has been isolated and identified by a team of scientists. The small molecule is familiar to synthetic chemists but had never been isolated from a natural source, researchers report online May 24th in *Nature Chemical Biology*.

Acute poisoning that leads to a breakdown of skeletal muscle tissue — a syndrome known as rhabdomyolysis — is not often caused by a mushroom and is quite different from the effects of toxins produced by *Amanita* species, says Petteri Nieminen, a specialist in physiology and toxicology at the University of Joensuu in Finland. *Amanita* mushrooms, including the notorious death cap and death angel, bear the toxins that are

responsible for more than 90 percent of mushroom-caused fatalities.

The toxic nature of *Russula subnigricans*, the species addressed in the new study, has been on the margins of mushroom research, Nieminen said. The new work “might bring this type of poisoning more to the foreground of mushroom studies,” he says. “

I strongly encourage everyone to read the entire article on the web at: http://www.sciencenews.org/view/generic/id/44223/title/Deadly_mushroom_toxin_exposed

Though no one knowledgeable about mushrooms would eat *R. subnigricans* or any of its close relatives. Strange things sometimes end up in foragers food baskets. The discovery of previously unknown fungal toxins should provide a sober warning. It should also remind us of the value of the collective knowledge gained from belonging to a mushroom club with alert members. Thank you Linda. 

Foxfire Funnies

Eating nasty poisonous mushrooms is nothing to joke about unless you read what David Arora has to say in Mushrooms Demystified about various *Russula* mushrooms mentioned in this month’s article “Deadly *Russula* Toxin Identified”.

R. densifolia, “Better dribbled than nibbled.”

R. subnigricans, “Better trampled than sampled.”

R. decolorans, “Better smashed than stashed.” 

2009 Spring Forays

(cont. from cover)



Jason Clarke being presented Mushroom Master Trophy by Dave Layton
Photo by Mike Krebil

Don Huffman, one of PSMC's founders joined us. Though he was only in the woods for a half hour he reported finding 3 species of, "*Morchella [semilibera, esculenta and deliciosa]* unfortunately not in great numbers, but at least there." Don also added to the excitement when he commemorated 25 years of PSMC by offering his 1984 PSMC Mushroom Master trophy to whoever bought back the largest and most interesting finds. Jason Clarke, a new PSMC member, won easily by returning with a number of very fresh and robust morels as well as other interesting fungi. Jason is a consummate mushroom hunter who has a nose as well as eyes for fungi.

Overall Marla and the folks in Marion County treated us very graciously, some good mushrooms were found and we all learned new things.

Palisades Dows preserve May 9th:



Photo on left: Discussing Adam's Morels



Photo on right: Roger Heidt showing group a *Gyromitra*

Again the biggest surprise for us "regulars" was the large group of people joining us, and several were young people. We were now at the height of a pretty good morel season in Eastern Iowa. Morels were abundant, but the morel hunters seemed even more abundant. Still nearly everyone on the foray found some morels and some of us found good numbers of them. Even so, one young man, Adam Weinstein, might have been a little optimistic carrying a large gunny-sack on his back. Although he did return with a few pounds of morels.



Deb Stringer with her first Morel

This was a very large woods so we split up into small groups led by those of us familiar with it. Dean and I walked with Deb Stringer, a graduate student at the U of I. A highlight for Dean and I was watching Deb find her first morel. Her enjoyment reminded me of my first find as a youth. Once again it was a lovely day with lots of happy mushroom hunters.

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2009 Spring Forays

(cont. from pg. 3)

CouFalls/New Pioneer Food Co-op Morel Cooking Class May 16th:



Panus conchatus

Our goal was to find mushrooms for the cooking class but it was getting late in the season and we knew that this public woods would have had plenty of mushroom hunters so Marty Augustine and I both brought some of our own morels. Still we did find a few good mushrooms including a couple of stuffers for the class. We also found some other interesting mushrooms such as *Panus conchatus* that we thought was a *Hohenbuehelia* until Roger and Dean determined microscopic characteristics later. Again we had several novices who I hoped would find their first morels. A couple of them did find morels and a couple didn't.



Dave with Morel

Photos by Oona-Margaret Burke

We were also interested in wild plants that might compliment our dishes later. Mike Krebil, who is very knowledgeable about wild edible plants, dug up some wild leeks and pointed out grapevines with young leaves and tendrils. The grapevines were excellent in the stuffed morels and leeks gave the quiche a unique deliciousness.



Left: Dave and Marty Augustine planning cooking class with Teresa Carbrey

Below: "Master" chefs in action
Photos by Mike Krebil

The cooking class was a hoot. I knew I was in over my head when they asked me how I wanted to start. Fortunately Teresa Carbrey, (New Pioneer Food Co-op) and volunteer, Roxanne Mitten knew what they were doing. By the time the class started we were well prepared. Still there was much laughter mostly at my expense as the audience showed me the proper way to whip eggs for quiche and reminded me when it was time to baste the stuffed morels. Marty's fried morels were excellent and my grilled cheese and morel sandwiches made good appetizers. Finally, both the stuffed morels with young grape tendrils and leaves and dried morel quiche with wild leeks and asparagus emerged both lovely and delicious to cap off a fun two hours.



(cont. on pg. 5)

2009 Spring Forays

(cont. from pg. 3)

Bill and Marlys Brown's woods on the Maquoketa River near Canton June 13th:



Group studying mushrooms



Cordyceps on larva (photo by Roger Heidt)

Bill and Marlys own property in one of those beautiful hidden parts of Iowa. The lovely setting and hospitality of the Browns was outstanding. Once again we had a good turnout despite rain right up to an hour before the foray. We were joined by a number of birders who were in the right place. They sighted warblers, indigo buntings, bob-whites and many humming birds attacking the Brown's feeders. The color of the birds was matched by many colorful fungi including rose colored *Rhodotus palmatus* and bright orange *Mycena leaiana*. Maybe the most interesting were small white *Cordyceps* growing from a bug larva buried in a log, brought to us courtesy of Roger Heidt's keen eye.

All in all, over 40 species of mushrooms were found despite it being in-between the spring and summer seasons. Dean especially enjoyed trying to identify a small fragile white vase that he believed belonged to the genus *Cotylidia*. Yet with all the fungi, the best photo op went to a large snail on a fungi covered log. Glen Schwartz brings us a great closeup of this little guy.



More foray information, lists of species and photos can be found at the PSMC website: www.geocities.com/iowamushroom. 

In the past, Prairie States Mushroom Club has had some short notice unscheduled forays with a notice sent out by e-mail. The majority of our members have e-mail but there are a few that do not. For those that would like to be informed of any unscheduled forays not published in the newsletter please let me know and I will try to leave a phone message for you.

Roger Heidt (319) 393-5712
PSMC Treasurer and Membership

If you have a favorite mushroom hunting place where you'd like to have a foray, please let me know.

Dave Layton (563) 242-0880
PSMC President davelayton@q.com

Sharing Morels

The only thing more enjoyable than cooking and eating morels is sharing them with friends and loved ones. Here are morel sharing stories from one of PSMC's first members, Don Huffman and one of our newest members, Jason Clarke:

First, Don's report:

I'm sending along a couple of photos which I collected when I took our Chinese exchange teacher out to one of my "old haunts" which usually does not fail me!

We got a couple of dozen nice *Morchella crassipes* mushrooms, and saw a couple of old *M. deliciosa* which were past prime. I think that the past day and 1/2 of rain gave us this fruiting, and I always expect this as the last gasp of morel season here. We showed Hongxin Zhang how to cook them, and she liked them very much — her first time to try sautéed morels, actually her first ever morels!



Hongxin Zhang with her first morel

From Jason:

We went on a week long vacation to Michigan to visit family (we moved to Iowa from Michigan in October, 2007). Here are some pics from May 18th when we took my mom shrooming for her birthday. She hasn't shroomed since 1975, and I took her to my old honey hole in a dead apple orchard hoping that there were still some morels left. The weather was perfect. We were on the tail end of the yellows, but managed to find 6 or 7 good ones that weighed in at about a 1/4 pound a piece! That's how they grow in that old orchard. I wish I was there 2 weeks ago! Moving to Iowa and having to hunt shrooms for "real", in the "real" woods has been hard for me. I've yet to find my honey hole here, but I sure have learned a ton about morels and trees since I've been here.



 Sally Fendt (Jason Clarke's Mom) with big morel

Whiterock Conservancy Bioblitz Needs Foray Leaders

On August 8th and 9th, Whiterock Conservancy will hold its annual weekend long Bioblitz located on a 4,200-acre contiguous block of savanna, woodland, pasture, and prairie (both reconstructed and remnant) on the Middle Raccoon River.

We had hoped to lead at least one mushroom foray there during the weekend but so far no one is available. Hopefully someone reading this will be willing and able to lead a foray at the Bioblitz. Even if no PSMC members are available to lead a foray, we hope PSMC members will join the Bioblitz and document mushrooms found with photographs and detailed descriptions.

For help in identification, email photos and descriptions to iowamushroom@yahoo.com. Other members will do what they can to assist.

For more information about the Bioblitz contact Elizabeth Hill, Ecologist, Whiterock Conservancy (712) 684-2964 x 114 (w) (712) 790-7259 (c) elizabeth@whiterockconservancy.org 

Pot Hunter's Corner

I never thought much of Fawn mushroom (*Pluteus cervinus*) flavor, but I would sometimes eat one or two young buttons with still white gills just because they looked good with better flavored mushrooms. I'd never eat them once their gills turned pink because their smell and flavor became more unpleasant as they matured. So I was somewhat disappointed when the robust, mature, thick stemmed, nearly white gilled mushrooms quickly acquired the unpleasant smell of a ripe Fawn mushroom and dropped salmon colored spores.

What I'd found was some kind of fawn mushroom anyway. Still, there were too many major differences for this mushroom to be *cervinus*. This mushroom was much stouter larger and firmer in both stem and cap. Plus the gills remained nearly white even in a mature specimen. They also emerged from a buried chipped up stump in small groups rather than individually. These mushrooms had to be a different species and they were!

In Mushrooms Demystified, they fit David Arora's description (including growth pattern) of *Pluteus petasatus* perfectly. More interestingly, he described them as, "Edible and very good – the best of the genus for the table." It was too bad that these mushrooms, which had emerged soon after a rain, quickly became soggy and insipid in my fridge while I worked on their identification for a couple days. It was too late to eat them and find out how good they really were.

Fortunately, they grew right across the street from my office window. Yes, I know what you're thinking, "Doesn't he have better things to do at work than sit and stare out the window?" Whether I have better things to do or not, looking out the window paid off this time, for when I came back after the weekend there were a dozen more beautiful, fresh, firm young buttons. A sample in the microwave confirmed a pleasant flavor indeed.

I sautéed several caps with onion, and fresh oregano, then I poured eggs on top as a sort of omelet. They had a rich fatty flavor with a hint of Pluteusness, though not at all unpleasant. They tasted and digested fine, though the overall richness of the meal was a little much. I think they would have been even better in spaghetti sauce or a stew or casserole. One thing for certain though is that they were by far the best of the genus that I'd ever eaten. The abundance and repeated fruitings of these mushrooms



Pluteus petasatus



is also exciting. It means that it's very important that I continue to devote a portion of each work day to looking out the window. 🍄

Cooking *Panus Conchatus*

I already knew they were tough and sure enough they needed more than just sautéing, but, even as I was chewing leather, I was tasting a very good mushroom flavor. They merited further experimenting.

I boiled a couple pieces in the microwave. They foamed up rapidly and gave the water they had cooked in a pleasant aroma. Even better, the thin fleshed outer reaches of the cap were now chewable with a nice oyster mushroom like flavor! I then fried the remaining piece in olive oil till golden brown. That was it! It was crispy but firm and just slightly chewy with a flavor that demanded I eat more. The rest of the mushrooms (outer cap portions) parboiled then fried were part of a delicious meal! 🍄

Recipes From the New Pioneer Morel Cooking Class

The following two recipes come from the cooking class that Dave and Marty led at New Pioneer Food Co-op on May 16th. Note: the Baked Stuffed Morel recipe was also featured in the Spring 08 issue of "Symbiosis." Wild grape tendrils and baby leaves from the foray were included in the baked morels. They went very well. Wild leeks from the foray were used in the quiche quite successfully, but ferns were long past fiddle head stage, so fresh asparagus was used.

Baked Stuffed Morels *(double recipe)*.

2 lbs medium to large fresh morels
2 cups chopped cooked chicken save broth
½ cup bread crumbs
2 eggs
½ cup milk

½ teaspoon Marjoram
dash nutmeg
A little brandy



Stuffing Combine in a mixing bowl: 2 cup cooked chicken, ½ cup bread crumbs, 2 eggs, ½ cup milk, ½ tsp marjoram, dash of nutmeg. *(Note ½ of double recipe pictured)*

Cut clean morels in half lengthwise (the bigger the better, but you already knew that). Place bottom half of each morel in a buttered baking pan almost touching. Add stuffing mixture, then cover with top half of same mushroom.

Pour a little chicken broth and brandy over the top and bake at 375 degrees for 15 to 20 minutes.

Morel Quiche *(double recipe)*

1 ½ cups dried morels
1 bunch of asparagus may substitute fiddle heads
8 eggs
2 oz extra virgin olive oil
½ cup green onions, shallots, wild leeks, garlic mustard flowers
2 - 8 inch pastry shells

1 cup half & half
¾ cup milk
6-8 oz grated or chunked swiss, goat or other white cheese
2 tablespoon vermouth (dry white wine) or
2 teaspoons of lemon juice
2 pinches of nutmeg and paprika



Reconstitute mushrooms by soaking and swishing around in hot water, pull from water and chop. Save water by straining through a coffee filter.

Sauté chopped onions etc. with part of the oil, add rest of oil and morels stir and start morels cooking, add asparagus mushroom water and cook till water is almost gone sprinkle in garlic mustard flowers or chives, add vermouth.

Meanwhile combine eggs, half & half and milk with salt, pepper, nutmeg, and paprika.

Put some of the cheese in the pie crusts, add mixture, add remaining cheese. Evenly pour egg mixture over the top cook at 450 degrees for 10 minutes to brown pie crust then reduce to 350 degrees cook until center starts to set up then remove and let stand for 10 minutes.



PSMC Happenings

Fall Issue of *Symbiosis* to Feature Local Mushroom Photography

More and more PSMC club members are enjoying mushroom photography. We are fortunate to have friends and members who are also master photographers. Our Fall 09 issue will focus on pictures of fungi and how they were taken. There'll be tips and sharing, stories and more. **Please send any pictures or mushroom photography related thoughts you wish to share to Dave at davelayton@q.com or iowamushroom@yahoo.com**

PSMC Fall Meeting and Foray Set

On October 3rd PSMC will hold its Annual meeting at Cedar Bluffs Natural Area State Preserve following the mushroom foray there. It's a large area with a good diversity of habitats. It's located south west of Oskaloosa. The Des Moines River is nearby with canoing, fishing, camping and rental cabins for those who want to make a weekend of it.

Fall Mushrooms and PSMC Featured in *Iowa Outdoors*

PSMC member Mike Krebill will have an article on the "How-to of Fall Mushroom Hunting" published in the September/October issue of *Iowa Outdoors* magazine which is published by the Iowa DNR. Mike's article will focus on choice and good edibles that can be found locally. His article will be complemented with outstanding photographs contributed by several PSMC members.

Another *Iowa Outdoors* contributor, Mike Whye, has submitted an article that is primarily about PSMC and his experience at the Browns Woods foray last fall. While it would be a good companion piece, it will likely be in the September/October 2010 issue instead, due to its length. There is also a possibility that one of Jim Frink's stunning photos will grace the back cover of the magazine.

As an avid canoeist, fisherman and lover of the beauty that can be found in our home state, I've subscribed to this extremely interesting and informative magazine for a number of years now. I'd recommend subscribing to anyone who enjoys any type of outdoor activity. For more information or to subscribe, go to the website: <http://www.iowadnr.gov/magazine/index.html>

Write to the Iowa DNR at: 502 E. 9th Street, Des Moines, IA 50319-0034 or call: (515) 281-5918. 

PSMC Looking to Host Mushroom Talk and/or Other Special Project

PSMC now has some funds in our budget for a special project because members voted to keep dues the same despite sending most newsletters electronically and because we've received reimbursement for presentations and the New Pioneer cooking class. One idea is to host a well known regional speaker on mushrooms. We are seeking input from members on what topic you would like someone to speak on, when and where you would like us to host a speaker and who you would like to hear speak. We especially want someone who would like to join us on a foray. Also if you have any other project that you'd like us to pursue we'd like to know that too. If you have any input please email us iowamushroom@yahoo.com or call Dave at 563-242-0880. Thank you PSMC members for making this possible! 

More pictures, species lists and interesting information can be found at the PSMC Website: <http://www.geocities.com/iowamushroom/>

Submissions are requested. If you have a fungi article, picture, recipe or joke to share please submit it to:
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PSMC Web Site:
[http://www.geocities.com/
iowamushroom/](http://www.geocities.com/iowamushroom/)



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PSMC Summer & Early Fall 2009 Forays

Sunday, July 19th, 9:00 a.m.

Amana Trail near Amana, Iowa
Directions: From Amana Iowa, go South 3 miles on Hwy. 151. On the curve where Hwy. 6 meets Hwy. 151, turn right on the gravel drive, then take the road to the left to the parking lot.

Sunday, August 9th, 9 a.m.

Pinicon Ridge, across the Wapsipinicon from Central City.
Pinicon Ridge Park
4729 Horseshoe Falls Rd.
Central City, IA, 52214

Saturday, September 12th, 10 a.m.

Palisades Kepler State Park near Mt. Vernon Iowa
Directions: From Cedar Rapids, exit I380 at Hwy 30. Go east 8.5 miles on Hwy 30 to the park entrance on the right (south).
From Mt Vernon, go 3.5 miles west on Hwy 30 to the park entrance on your left. Meeting place in the park still TBD.

Saturday, October 3rd, 10 a.m.

Cedar Bluffs Natural Area (PSMC Annual Meeting to follow the foray)
Take Hwy. 92 South West of Oskaloosa, turn South on Indian Way (through the town of Beacon). Right

after you cross the Des Moines River bridge, you'll see a brown sign for Cedar Bluffs. Turn right onto the gravel road (290th St.) and follow the signs. You'll take a right onto Fairfax Ave. (gravel road) and drive until you reach a T intersection. Turn left onto 280th St. and go about 4 miles until you see the sign for Cedar Bluffs on the right.

For more information about Prairie States Mushroom Club forays, go to the PSMC Website <http://www.geocities.com/iowamushroom/> or contact Dean Abel PSMC Secretary, 319-354-3510, email dean-abel@uiowa.edu