



Western Pennsylvania Mushroom Club



Newsletter Volume 7, Issue 5
December 2006

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The newsletter of the Western Pennsylvania Mushroom Club is published and distributed 5 times per year: April/May, June/July, Aug/Sept, Oct/Nov, and Dec. Articles, photos, news items, and other submissions should be sent to the editor at least 6-8 weeks prior to targeted distribution for the best chance of inclusion. The editor cannot guarantee that submissions will be included in the next newsletter. However, all submissions will be included in future newsletters as long as it relates in some way to fungi. The editor reserves the right to make spelling or grammatical corrections and may suggest content changes to the author. Material published in our newsletters may be used in other non-profit publications only with expressed permission and with appropriate acknowledgements.

Mushroom Toxicity

Article by Drs. John Stuart and Frank Lotrich



Destroying Angels (Amanita bisporigera, formerly Amanita virosa) Photo by John Plishcke III

Mushrooming is a fascinating hobby with many advantages. It gets us outdoors, there are more species than we can possibly identify, and they are amazing in their delicacy, beauty, and variations in size, shape, color, smells, and tastes. Hunting fungi can be a lifelong experience that brings surprises with every foray. Unfortunately eating the wrong mushroom can also kill you. Thankfully, fatalities from mushroom poisoning are quite rare.

The Mushroom Poisoning case registry was established by the Trustees of the North American Mycological Association to collect information on mushroom poisoning in North America. According to Dr. Michael Beug, a mycologist at Evergreen State College in Washington and affiliated with NAMA, there are about 70 cases of human mushroom poisoning and 30 cases of animal poisonings that are reported to NAMA for all of North America yearly. Reporting is voluntary so undoubtedly most cases are missed. Dr. Beug has a website that discusses many of these mushrooms at <http://www.evergreen.edu/mushrooms/phm/index.htm>.

In 2004, the American Association of Poison Control Centers reported 8,601 cases of mushroom poisoning and 5 fatalities. The offending mushroom was identified in only 19% of cases. A 12 year study by Goldfrank revealed that 50% of mushroom poisonings had no symptoms, 25% were treated in a health care facility, 10-15% had minor symptoms, less than 5% had moderate symptoms and 0.2% had major toxicity. Mortality rate was estimated at 0.016%. Of 8,996 exposures, 5,976 were younger than 6 years of age. This last figure should be particularly noted. Most cases of potential poisoning occur in young children.

Continued on page 3, see "Mushroom Toxicity"

From the Editor

By Jim Strutz
strutzj@strutz.com

One of the things that I appreciate the most about WPMC is the diversity of expertise and interests among our members. What really awes me is how willing and able so many of our members are to share their knowledge and experiences with the rest of us. I certainly am honored to present them to you in this particular venue, our newsletter. It all makes for a good Thanksgiving theme and it is one of the intangible benefits of being a member of WPMC.

Most of us mycology amateurs know the potential dangers of consuming the wrong mushrooms – sickness or death. We know that some kinds of mushrooms can kill us, some can make us seriously ill, some can upset our stomachs, and some only make us sick when consumed with alcohol. I remember Dr. Tom Volk telling us at a Morel Madness a couple of years ago that some mushroom toxins are only one molecule different than rocket fuel (I've since wondered if these mushrooms could somehow wean us away from our dependence on fossil fuels and all of the associated Middle East issues). Drs. John Stuart and Frank Lotrich have collaborated to write about mushroom toxins. They explain the major toxin categories and some of the associated kinds of mushrooms.

Mushrooms have long played an important role in European and other older cultures. I took a clue from a quick web search that mushrooms were so highly prized in ancient Egypt that only royalty were permitted to eat them: mushrooms may also have been prized in old European cultures and perhaps were saved for special occasions. Joe Luzanski writes about the traditional role that wild mushrooms have in his family's Christmas celebration. It is one of the reasons why Joe is interested in wild mushrooms and why he joined our club. I always love reading about food and culture. Now, if I only knew how to read those Slavic words with the funky accents...

The results of the 2006 photo contest are in! Read about the winners in each of the categories and check out a couple of the pictures. More pics to appear in future issues.

It's that time of year when our club elects new officers. We had a complete turnover of officers this year. My double duty as the Vice-President has ended but not without some mixed feelings. It was time for me to concentrate my efforts on the newsletter editor job but I will always reflect on the past 2 years with a sense of accomplishment in helping to carry the club forward. I am proud to have served with Joe Luzanski, George and Mary Jane Yakulis, and Val Baker. Great job guys.

May the coming year bring you many mushrooms and lots of enjoyment finding them, growing them, crafting them, eating them, and whatever else. Best wishes for a happy, healthy, and prosperous 2007.

WPMC News Items

WPMC Yahoo Groups

Yahoo Groups is a great resource for our club members and other mushroom enthusiasts from across the country. There are always interesting discussions in the 'Message' section on all kinds of subjects involving wild mushrooms. Find out what mushrooms are up, where people are finding them, recipes, weather, and latest announcements. Also find award winning photos in the 'Photo' section and articles, lists, and other files in the 'Files' section.

<http://groups.yahoo.com/group/wpamushroomclub/>

WPMC Website

Another great resource to club members is our professionally designed website. There you will find information and links pertaining to our club, including our walk/foray species lists and Java data miner. Don't forget to read the President's Blog while you're there. Please see www.wpamushroomclub.org for more information.

WPMC Mushroom Items

Our club sells several mushroom items to raise money to fund club activities. We have club T-shirts available for \$15, club cookbooks for \$5. Loupes and boxes of wax bags are also available. We should have our new WPMC hats available in time for the Gary Lincoff Mid-Atlantic Foray

Renew Your Membership for 2007

Now is the time to renew your WPMC membership if you already haven't done so. We are one of the largest mushroom clubs in the nation with well over 400 members. Because of our size, we have been able to attract nationally known amateur and professional mycologists to our forays. Gary Lincoff, author of the "Audubon Field Guide to Mushrooms", regularly speaks at our annual fall foray which is named in his honor. Dr. Ernst Both (Bolete expert) spoke at our 2005 foray and Dr. Rod Tulloss (Amanita expert) spoke at our 2006 foray. Our Mushroom Mania foray is among the best in the nation with great mushroom walks, great speakers, and great food. Additionally, our club organizes mushroom walks virtually every weekend between April and October, we publish 5 informative newsletters, and we hold meetings every third Tuesday of each month from March to November. The best part, however, are the relationships you build with other people who share your passion for all things fungi. You help to make our club what it is. Individual memberships are \$10 for full time students, \$15 for individuals, and \$20 for families. Fill out the membership form in this newsletter and send in your dues today.

Lost & Found

Some personal items were left at Mushroom Mania. Please contact Mary Ellen Dougall (412-486-7504) if you are missing any of the following:

- Man's (large size) black jacket with quilted lining
- Cap with "WPSX"
- Compass/whistle/light – all in one

There are more than 5000 mushroom species in the U.S., approximately 100 are very poisonous and 15-20 can be deadly. Many more can cause problems under the right circumstances. Even significant amounts of the common button mushroom can cause stomach upset when eaten raw. However, there is no easy method or formula to determine whether a mushroom is toxic or not. Tales such as "boiling with a silver spoon, safe if growing on wood, OK if you can peel the cap" are absolutely not true and hold no validity. Even ingesting a small piece of a toxic mushroom may cause death. Cooking, salting, or drying does not inactivate many mushroom toxins and even fumes that arise from cooking certain species can cause poisoning. To repeat, there are no general rules for determining if a mushroom is toxic or not.

Mushroom "toxi-syndromes" can be classified into at least 8 major categories based on the toxin and clinical presentation. Each mushroom group exerts its toxic effects by a different mechanism and certain toxins have a predilection for certain organ systems. The toxins are

1. amatoxins (cyclopeptides), 2. orellanus (Cortinarius species), 3. gyromitrin (monomethylhydrazine), 4. muscarine, 5. ibotenic acid, 6. psilocybin, 7. coprine (disulfiram-like), and 8. GI upset from both known as well as miscellaneous, unknown toxins that are produced by a vast range of species. There are many other toxins that have been identified, as well as numerous others that await characterization. However, the ones discussed in this article are the most commonly encountered and reported in the U.S.

One group of these toxins is the most common cause of deaths in the US. Dr. Andrew Chang reported in an e-medicine article (www.emedicine.com/emerg/topic818.htm) in Jan. 2006 that 95% of all mushroom fatalities in North America are associated with amatoxins. Worldwide, amatoxins have a mortality rate ranging from 10-60%. With the help of modern medicine, the rate of death is thankfully much lower in the U.S. However, it is still significant (about 5-10%). Because liver damage can be predominant, many



Deadly *Galerina* (*Galerina autumnalis*) Photo by John Plischke III

people survive but require liver transplantations. The amatoxins are heat stable proteins, insoluble in water and are not destroyed by drying. This means that cooking, boiling, and/or drying do not destroy the poison. The mushrooms associated with this poison include *Amanita phalloides*, *A.virosa*, *A.ocreata*, *A.verna*, and *A.bisporigera*, *Conocybe filaris*, *Galerina autumnalis*, *G.marginata*, *G.venenata*, *Lepiota castanea*, *L.helveola*, *L.josserandii*, *L.subincarnata* and close relatives. Amatoxin poisoning is especially dangerous due to a long latency period of 6-24 hours before symptoms become apparent. That is, you might think that you're OK for a day or two and then start feeling sick. You may not even associate your sick feeling with the mushroom that you ate a day or two prior. During this time the toxins have been completely absorbed by the body. Three stages have been described, i) cramping, nausea, vomiting, profuse watery diarrhea 6-24 hours after ingestion, ii) recovery of gastrointestinal symptoms after 24 hours that can last for 2-3 days during which liver damage is ongoing, and iii) hepatic and renal damage clinically evident and potentially life threatening. Mortality is higher in children because they absorb a larger dose of toxin per body weight.



Cortinarius camphorates, photo by John Plischke III

Orellanine poisoning can similarly have a delayed onset of symptoms from 36 hours to 3 weeks. Orellanine results in nausea, vomiting, lethargy, burning thirst, frequent urination, sensations of coldness and shivering progressing to kidney failure. The mushrooms involved include several *Cortinarius* species. People have died from eating these mushrooms. In general, it is recommended that you don't eat *Cortinarius* mushrooms, as the comprehensive list of those that contain Orellanine has not been completed.

Mushrooms that contain Gyromitrin are the "false morels" *Gyromitra esculenta*, *G.ambigua*, and *G.infula*. It is also in many related Ascomycetes such as some species of *Helvella*, *verpa*, and *Cudonia*. When heated, Gyromitrin's product of hydrolysis is monomethylhydrazine (MMH) a very volatile, highly toxic, carcinogenic compound that has been used by NASA as rocket fuel. Fumes from cooking may even cause toxicity. Certainly, eating it can be bad. Gastrointestinal symptoms such as nausea, cramping, and throwing up can be delayed 2-24 hours post ingestion and

progress to liver, kidney and red blood cell damage, delirium and seizures. The amount of MMH in particular mushrooms may vary widely from one mushroom to the next, so it is hard to predict whether you'll have minimal symptoms, several problems, or even death from eating false morels. It is best to not gamble.



False Morel (*Gyromitra esculenta*) Photo used with permission from TomVolkFungi.net

Muscarine and ibotenic acid toxicity both have short latency periods of 30-180 minutes. That is, you know very soon that you've been poisoned. Muscarinic symptoms include excessive salivation, sweating, tearing, vomiting and diarrhea, blurred vision, pupil constriction, irregular pulse, decreased blood pressure, and severe confusion. Victims usually recover within 24 hours, unless they are very young or very old. The mushrooms involved include certain *Inocybe*, *Clitocybe*, *Omphalotus* and red pored *Boletus* species. Ibotenic acid and other isoxazole derivatives cause symptoms of nausea and vomiting, confusion, visual distortion within 30min to 2 hours after ingestion and last several hours. Drowsiness is common and may simulate coma. The effects are only temporary and recovery is normally spontaneous. The mushrooms involved in this group include several *Amanita* species and *Tricholoma muscarium*. Ibotenic acid has been used in research



Red Mouth Bolete (*Boletus subvelutipes*), Photo used with permission from PamelasMushrooms.com website, photo by Pamela Kaminski

because of its ability to kill brain cells. Even though death is rare (except in very young children), it is best to avoid this toxin.

Psilocybins are well known hallucinogens. They cause primarily psychological and perceptual effects within an hour of ingestion lasting 4-6 hours. A very few severe reactions have been reported in accidental exposure in small children. Seizures are possible. Many mushrooms containing psilocybins are also similar in appearance to those containing orellanine or amatoxins (such as the deadly *conocybe*). Take care.



Blue Foot Psilocybe (*Psilocybe caerulipes*) Photo by John Plischke III

Coprinus syndrome is a rapid onset of nausea, vomiting, increased heart rate, palpitations, sweating and flushing. It is precipitated by alcohol ingestion anywhere from 30 min to 5 days following the mushroom meal. Called a disulfiram-like reaction because it is similar to effects of the drug Antabuse given to alcoholics. The mushrooms involved include *Coprinus atramentarius* (inky cap), *C. insignis*, and *Clitocybe clavipes*. Don't eat these mushrooms if you'll be drinking alcohol within the next several days or you'll experience this syndrome.



Alcohol Inky (*Coprinus atramentarius*) Photo by John Plischke III

There is a final group of miscellaneous and unknown toxins produced by a vast array of species that universally cause gastrointestinal dysfunction. Cramps, nausea, vomiting and

Diarrhea usually resolves within 24 hours and the prognosis is good. The most common complication is dehydration from the vomiting and diarrhea. But it can be an unpleasant experience. Many mushrooms can cause gastrointestinal problems when not cooked. Notably, this even includes the tasty morels.

This is not a complete list of toxins and syndromes from poisoning. There are many others that are known. Moreover, there are many others that are not as well known. But this is a good starting point for thinking about what things to avoid. Some people can also have adverse idiosyncratic reactions to "harmless" mushrooms and some have adverse reactions to species that previously gave no trouble. There is also the chance of psychosomatic symptoms.

No doubt mushroom toxicity is an important concern when eating wild mushrooms. But there are some basic rules to follow: Since most of the fatalities occur in the amatoxin group, know how to identify mushrooms with amatoxin well. Avoid eating amanita species. Don't eat any little brown mushrooms (LBMs). Don't eat any mushrooms that look spoiled or rotten. The first time eating a new species, take only a small test amount with no alcohol. Avoid eating raw mushrooms. Watch for possible contamination of mushrooms from environmental pesticides or herbicides. There are certainly pitfalls but by following common sense rules like "when it doubt, throw it out", by educating ourselves regarding the major species offenders, and by ingesting in moderation only those mushrooms we have repeatedly identified with certainty, we should be able to stay away from any major troubles.

Dick Dougall Honored with NAMA's Knighton Award

By John Plischke, excerpted from Yahoo Groups

Congratulations to Dick Dougall for winning the North American Mycological Association's Knighton Award. The Knighton Award is named for Harry and Elsie Knighton who founded NAMA. It is given to recognize and encourage persons who have distinguished themselves in service to their local clubs. Dick won this award over a potential 10,000 candidates. Congratulations Dick! The award was well deserved.



Gary Lincoff presenting Knighton Award to Dick Dougall at Mushroom Mania. Photo by Becky Plischke

2006 Photo Contest Results

Digital Pictorial

1st place: Dick Dougall, "Siamese Twins"

2nd place: Dick Dougall, "Coprinus"

3rd place: Shirley Caseman, "Bleeding Mycena"

HM: Shirley Ann Caseman, "Orange Mycena"

HM: Shirley Ann Caseman, "Turkey Tail on Wood"

Digital Documentary

1st place: Dick Dougall, "Bleeding Mycena"

2nd place: Dick Dougall, "Common Brown Cup"

Digital Judge's Option

1st place: George Yakulis, "Bearded Oyster"

2nd place: Shirley Ann Caseman, "Gary Lincoff"

3rd place: Shirley Ann Caseman, "John Plischke Interview"

HM: Shirley Ann Caseman, "Vintage Chanterelles"

HM: Shirley Ann Caseman, "Cooking Chanterelles"

HM: George Yakulis, "First Day of School"

HM: George Yakulis, "The Award Winner"

HM: George Yakulis, "Guess Who I Am"

Prints Pictorial

1st place: Don Ulin, "Fairy Ring"

Prints Documentary

1st place: Don Ulin, "Lepiota rachodes"

Prints Judge's Option

1st place: Don Ulin, "Fairy Ring Meditation"



"Fairy Ring", photo by Don Ulin, 1st place Prints Pictorial

Editor's note: Participation in this year's photo contest seemed somewhat lacking as evidenced by the same 4 winners in all the categories. I, for one, had sorted out the best of my pictures for 2006 but never got around to submitting them before the deadline. I'll be sure to submit my entries for the 2007 photo contest plenty early.

Christmas Mushrooms

Article and Photos by
Joe Luzanski



It's not easy to write about mushrooms as we get into the winter months. Well, except for cooking with them. And that is the biggest benefit to safe mushroom hunting.

We do some of our best mushroom cooking for Christmas Eve, a day of fasting and feasting. In many areas of Eastern Europe, more specifically Slovakia, Carpatho-Rus, Ukraine, Poland and Belarus, a strict-fast Holy Supper or Svjatyj Večer is observed on Christmas Eve. No meat, eggs or dairy products are eaten during the fast and the menu for the evening meal reflects that rule. Some observe the strict fast until sunset others until mid-night. While there are common threads, the customs for Christmas Eve differ from region to region, village to village and family to family. Over time our "tradition" has evolved to suit our present time and circumstances. In many ways this Christmas Eve Holy Supper is the highlight of our Christmas celebration and more exciting than Christmas Day.

The day begins with Vinšovania. On Christmas Eve men and boys carry good wishes to their friends, relatives and neighbors and are repaid for their kindness with small treats and perhaps something to ward off the winter's chill. It is early in the day that the men and boys make their rounds for it is good fortune to have a man enter a home first with his good wishes for Christmas and the New Year and misfortune indeed to find a woman at the door early in the morning. In our house my son and I show up at our front door and then I use the phone to call my mother and my in-laws.

The adults use this wish.

I wish you, I wish you on this Christmas from today peaceful many years to await you. That you might have from the field bountiful harvests, home abundance. That you might walk between the rows of your fields like the bright moon among the stars. I wish you good luck. Christos Raždajetsja! Slavite Jeho!

The children use this wish.

I am such a small well-wisher give me kolač, whiskey and a slice of bacon on a piece of bread. Christos Raždajetsja! Slavite Jeho!

Once the Vinšovania is accomplished, cooking for the meal begins in earnest. Traditionally twelve courses are prepared, but even if you cut that in half it is a lot of

cooking and takes all day. When my Aunt Anna used to do this for her extended family she began cooking at four in the morning. Of course, she had so many people at her house that they had to eat in shifts. With two of us cooking there is stiff competition for prime kitchen space and turf battles do occur. There is no harm in preparing some of the dishes a day early to prevent conflict in the kitchen and I think that a day of rest actually improves the flavor of some of the dishes.

The foods on the table include fish, succotash, mushrooms with gravy, Slovak mushroom soup, mushroom sauerkraut soup and mushroom stuffed cabbage, sauerkraut navy bean soup, breaded fried prunes, garlic, honey, bobal'ki and pagach made with sauerkraut. As I said, each region, village and family have their own traditions so I'm sure we are missing out on some of other's family's favorite dishes.

I got back into mushrooming in order that I could gather the same mushrooms that I had gathered with my family when I was a kid and use them for our Christmas Eve holy supper. Before I joined the mushroom club I tried to find "experts" who would help me get back into mushroom hunting (safely). I figured that the old-timers at church would be experts and I went out with one fellow and we found some mushrooms. I decided to discard them after he told me that he "thought" that they were good. We also discussed the silver dollar theory of preventing mushroom poisoning. That is never a good idea.

The mushroom that so many people use for their Christmas Eve dishes is the "Podpnovka obycajna", "podpinka", "popinky", "stump mushrooms" or honey mushroom. These mushrooms belong to the *Armillaria mellea* family. Within that group there are many subspecies that have their differences as well as similarities so I am always careful with my identification.

Honey Mushrooms are pretty durable and they hold up well in these recipes. You don't have to use honey mushrooms, store bought "button" mushrooms will do. We've also used oyster mushrooms, horse mushrooms and Sheepshead (hen of the woods). Pick mushrooms that work with the dish that you are preparing. This year, in the Spring, I insisted that we make the Slovak mushroom soup with morels. It did not turn out well. Morels just don't have the heartiness to carry it off.

Some of the mushrooms that we use are dried and some are frozen. Horse mushrooms are always precooked and frozen. Oysters are usually dried and we both dry and sauté and

freeze the sheepshead. I think that boletes would work well with these recipes but we just never find enough to give it a try.

As I said, meal preparation takes all day and the excitement builds as we await the setting sun and the appearance of the first star in the evening sky. Before the meal is served, all partakers of the Holy Supper wash their hands in bowl of water with silver coins for prosperity in the New Year. We use a silver dollar given to me by my baba. That was her Christmas gift to me and now is Christmas connection to her.

In preparation for the meal, a candle that symbolizes the Star of Bethlehem is lit and placed into the bread that is in the center of the table. A chain is placed under the table in such a way that everyone's feet rests upon it to bind us together as a family.

The meal begins with prayer and liturgical song. Then I pick up some straw or hay and place some on the table and the remainder on the floor under the table while reciting this blessing.

We wish happiness, fortune and health with the approaching Feast Of The Nativity Of Our Lord. And we hope that all of us may live to another Christmas. To live the year long in peace and happiness. And we ask God's Blessings on all of us.

Then those present take a Christmas wafer, called oplatki, dip it into honey with the toast "May God grant you be as sweet as this honey." Next we dip the garlic into the honey and eat it with the toast "May God grant you be as strong as this garlic." The honey symbolizes the sweetness of life, the garlic the bitterness. Then I offer a toast "Vinšovania", with sweet wine saying:

Grant oh God that we may live to an even better holy night next year. May the Lord Give health to you my dear wife and to you my son. To our family, to our good and bad neighbors, to my friends and enemies. May God bless all Christians here and abroad and may He grant eternal memory and heaven to the departed. And above all, my little Jesus, born this day, bring peace, health and happiness.



Washing your hands with money

Now the food is brought to the table. The first soup served is always my wife's family's Slovak mushroom soup. This is a favorite that we make only once a year on Christmas Eve. This soup, like Mrs. Cratchet's pudding, must turn out well. At this point the Christmas icon and any decorations are removed from the table to make space for the remainder of the meal. There is no set order to the rest of the meal. Tradition dictates that everyone must at least taste each and every item served. In reality that doesn't happen. My son is a picky eater, my mother doesn't eat mushrooms and my mother-in-law is leery of wild mushrooms. Imagine that!



Waiting for dinner to be served

Just taking just a dipper of this, a spoon of that and a fork full of something else fills both the plate and the stomach quickly. We always overcook and there are always leftovers. But we have a perfect solution. We package everything up and freeze it and when Christmas Eve comes again thirteen days later on the Julian calendar we do it all over again, but on a smaller scale.

The meal ends with coffee, tea and Christmas deserts that do not keep the spirit of the strict fast. Then everyone gathers in the family room around the fireplace where we've piled up its fires half-chimney high.

Recipes

It would be fair to say since we have been making these for years, we tend to adjust quantities on the fly. If we've defrosted or re-hydrated more mushrooms than the recipes call for, they don't ever go to waste. So in reality the quantity of mushrooms in these recipes is understated.



Slovak Mushroom Soup

This recipe comes to us through my wife's family. This is our Christmas Eve favorite.

- 2 pints fresh mushrooms
- Salt & pepper
- 1 large onion
- 4 eggs
- Paprika

Cook mushrooms for 1/2 hour in 5 cups of water with salt and pepper (to taste.) Mix 1 1/2 tbsp of flour with a little water and make a smooth paste. Add 1 egg and beat well, then add enough water to make 1 cup liquid. Pour into the mushrooms and cook slowly, stirring constantly. Beat 3 eggs and drop into soup with a fork. Sauté a large diced onion in 3 tbsp. butter till light brown. Add paprika and brown slowly. Add onion and paprika to soup. When cooled slightly add 1 can of condensed milk.



Mushroom Stuffed Cabbage

- 1 head cabbage
- 1 can sauerkraut
- 2 c. ground mushrooms (either canned, dry or frozen) it is best to course chop the mushrooms.
- 1 c. rice (uncooked)
- 2 Tbsp. oil
- 1 medium onion
- 1/2 tsp. salt
- 1/4 tsp. pepper

Cut core out of cabbage to loosen leaves. Place the head of cabbage into boiling water for a few minutes. Remove leaves as they get slightly softened. You can also rinse the head of cabbage and then put the head into the microwave for a minute or less. Peel off the leaves as they become soft. Cut away the thick rib from each cabbage leaf.

Fry onion in oil until soft and add to mushrooms and rice. Add salt and pepper. Mix. Place about 1 tablespoon mixture in each cabbage leaf and roll. Drain and rinse the sauerkraut; use about half the kraut in the bottom of the pot. Arrange the rolls over the kraut. Cover with remaining kraut. Now you have a choice either: Fill pot with water just to the top of the rolls. Cook slowly for about 2 hours. Or. Bake them in the oven at 350F until done. (I prefer this method.) For flavoring and coloring you may add 1/2 can tomato soup, tomato sauce and lump tomatoes over the top of kraut before cooking.



Joe's Sauerkraut & Bean Soup

- 1 can of navy beans
- 1/2 can of sauerkraut
- Potatoes
- Carrots (just a little bit for flavor and color)
- Salt & pepper to taste

Just cook this together with enough water to cover.



Mushroom Sauerkraut Soup

- 1 cup dried mushrooms
- 2 Tbsp. oil
- 1/2 can sauerkraut
- 1 small onion, chopped
- Salt and pepper
- 1 Tbsp. flour

Soak dried mushrooms in cold water until re-hydrated. Drain and chop. Rinse the sauerkraut (if you want the soup to be less sour and salty). Add the sauerkraut and enough water to cover the mushrooms to soup pot. Simmer 2 hours or until mushrooms are tender.

Brown the onion and add it to the soup. You can cook the onion in the brown sauce (Zapraška) but I always burn the mixture so I do a two-step here.

Make a Zapraška, blending oil and flour together in a frying pan. Keep on medium heat and keep stirring until lightly browned. Cool slightly and add 1-cup cold water and blend until smooth. Pour this brown sauce into the cooked mushroom mixture. Add salt and pepper I use only a little bit of Zapraška because I do not want this to be gravy but a soup.



Mushrooms And Gravy

- 1 lb. fresh mushrooms or canned mushrooms
- 4 Tbsp. Oil
- 4 Tbsp. flour
- 1 clove garlic, cut up
- Salt and pepper
- 2 c. water
- Vinegar (optional)

Clean, wash and drain mushrooms. Cut mushrooms up with garlic. Add 1-cup water and let simmer for about 1/2 hour.

Make a brown sauce (Zapraška), blending oil and flour together in a frying pan. Keep on medium heat and keep stirring until lightly browned. Cool slightly and add 1-cup cold water and blend until smooth. Pour this brown sauce into the cooked mushroom mixture. Cook the mushrooms until tender. Add salt and pepper and a little vinegar to taste.





Western Pennsylvania Mushroom Club

2007 Membership Application



The purpose of the Western Pennsylvania Mushroom Club is to promote the enjoyment, study, and exchange of information about wild mushrooms. Everyone who has an interest in wild mushrooms is welcome to become a WPMC member. Members are entitled to:

- The WPMC newsletter
- Nine monthly WPMC meetings
- Free participation in WPMC Walks
- Fee discount for WPMC Forays
- Fee discount on WPMC sponsored merchandise

Name (please print) _____ Address _____
 City _____ State _____ Zip _____ County _____
 Phone _____ Email _____

Interests

- | | | |
|--|---|--|
| <input type="checkbox"/> Learning Mushrooms | <input type="checkbox"/> Mushroom Walks | <input type="checkbox"/> Club Committees |
| <input type="checkbox"/> Eating Wild Mushrooms | <input type="checkbox"/> Toxicology | <input type="checkbox"/> Cultivating Mushrooms |
| <input type="checkbox"/> Dyeing with Mushrooms | <input type="checkbox"/> Mushroom Art | <input type="checkbox"/> Mushroom Photography |

How many mushrooms could you identify? _____

WE NEED YOUR HELP! Find something you would like to do. Check the appropriate boxes. We can have a lot of Fungi, Fun, and Friends but it takes your participation to make it happen. Please check 3 boxes below.

- | | |
|--|--|
| <input type="checkbox"/> Scout for walk locations-lead walks | <input type="checkbox"/> Publicize meetings, forays, events |
| <input type="checkbox"/> Help organize forays | <input type="checkbox"/> Club Historian |
| <input type="checkbox"/> Print club materials, flyers, etc. | <input type="checkbox"/> Compile meeting & walk sign in sheets |
| <input type="checkbox"/> Work on newsletter committee | <input type="checkbox"/> Outreach-speak to clubs & organizations |
| <input type="checkbox"/> Contribute articles, photos to newsletter | <input type="checkbox"/> Call or e-mail members |
| <input type="checkbox"/> Help with webpage & e-group moderator | <input type="checkbox"/> Give a program at Club monthly meeting |
| <input type="checkbox"/> Line up speakers for meetings | <input type="checkbox"/> Produce or acquire teaching materials |
| <input type="checkbox"/> Host guest speakers and mycologists | <input type="checkbox"/> Welcome and orient new members |
| <input type="checkbox"/> Record meetings, discussions, events | <input type="checkbox"/> Work on hospitality committee |
| <input type="checkbox"/> Sell club items, tee shirts, cookbooks | <input type="checkbox"/> Participate in special projects |
| <input type="checkbox"/> Present or assist with a club workshop | <input type="checkbox"/> Record mushrooms that are found |
| <input type="checkbox"/> Help with sign in at walks and meetings | <input type="checkbox"/> Door prize committee |

Dues enclosed \$ _____ (\$20 Family, \$15 Individual, \$10 Full-time Student)

Return completed signed and dated form with check payable to W PA Mushroom Club to:

Glenn Carr
 1848 Fairhill Road
 Allison Park, PA 15101

Signing and dating the release is an absolute requirement for membership.
 If you don't, your membership application will be returned.

(OVER)

**Western Pennsylvania Mushroom Club
2007 Release and Indemnification Agreement**

This Release and Indemnification Agreement (the "Agreement") is entered into by and between the Western Pennsylvania Mushroom Club, as it is presently organized and may be later structured ("WPMC") and the undersigned Member (the "Member") on this _____ day of _____, 2007.

WHEREAS, WPMC is a non-profit educational organization that has as its principal purpose the sharing of mushroom related information among its members; and

WHEREAS, all officers, directors, identifiers and members serve WPMC in a voluntary capacity and receive no remuneration for their services; and

WHEREAS, in cases where WPMC charges a fee for its forays, walks, lectures and other events (collectively "WPMC Events"), it is doing so only to cover its direct costs and does not operate in a for-profit capacity; and

WHEREAS, the Member understands that there is inherent and unavoidable risk in outdoor activities relating to hunting and consuming wild mushrooms. These risks include but are not limited to the dangers of hiking in difficult terrain, the possibility of misidentifying a wild mushroom, and the possible allergic or toxic reaction that some individuals may have to otherwise edible mushrooms.

NOW THEREFORE, THE MEMBER HEREBY AGREES TO THE FOLLOWING:

- 1. THE MEMBER ASSUMES ALL RISKS ASSOCIATED WITH WPMC EVENTS. THE MEMBER EXPRESSLY ACKNOWLEDGES THAT IT IS THE MEMBER'S SOLE RESPONSIBILITY TO HIKE SAFELY AND TO DETERMINE WHETHER A WILD MUSHROOM MAY BE CONSUMED.**
- 2. THE MEMBER RELEASES, HOLDS HARMLESS, AND INDEMNIFIES THE WPMC, ITS OFFICERS, DIRECTORS, IDENTIFIERS AND REPRESENTATIVES FROM ANY AND ALL LIABILITY RELATING TO ANY INJURY OR ILLNESS INCURRED BY THE MEMBER OR THE MEMBER'S FAMILY MEMBERS AS A RESULT OF PARTICIPATION IN A WPMC EVENT.**

This Agreement shall be governed by the laws of the Commonwealth of Pennsylvania. If any portion of the Agreement is declared for any reason to be invalid or unenforceable, such invalidity shall not affect any other provision of the Agreement. **This Agreement shall apply to all WPMC events for the calendar years 2007.**

MEMBERS:

Member Sign Here

Member Sign Here

Member Sign Here

Member Sign Here

Member Sign Here

Member Sign Here

(If Member is under age 21, Parent's signature)



From left to right: Glenn Carr, Jean Petrisek, Dick Dougall, Shirley Ann Caseman, John Stuart. Photo by Jim Strutz

President: Dick Dougall. We know Dick well as the president of our club 2002-2004, recipient of Distinguished Service Award, recipient of NAMA's Knighton Award, co-chair of our Gary Lincoff Mid-Atlantic Mushroom Foray, and active in many other aspects of our mushroom club.

Vice-President: John Stuart. John is a medical doctor and has an interest in mushroom toxicity. He co-authored the article on "Mushroom Toxicity" that appears in this newsletter.

Treasurer: Glenn Carr. We also know Glenn as Dick's vice-president for 2002-2004. Glenn has also been active in many aspects of our club including co-chair of our Gary Lincoff Mid-Atlantic Mushroom Foray for the last two years and Nomination committee among others.

Recording Secretary: Shirley Ann Caseman. "I've always been interested in all aspects of the wonders of nature. Finding mushrooms adds to the enjoyment of walking in the woods".

Corresponding Secretary: Jean Petrisek. "My interest in the club comes from a desire to learn about the fungi I see on walks with the dog in the woods, and a desire to experiment with food".



Holiday Gift Idea

Why not gift your favorite *fungal fanatic* with a 2007 WPMC membership? Just \$15 will get 5 informative newsletters, 8 monthly meetings, 25 or so weekend walks, and lots of other great mushroom fun. See membership form within.

Researchers have found that an Asian mushroom, *Phellinus linteus*, may be a nontoxic weapon against prostate cancer. Cancerous cells were treated with a combination of extracts from the mushroom and a small dose of the chemotherapy drug doxorubicin. The mix was at least as effective at killing cancerous cells as larger doses of doxorubicin by itself but without harming healthy cells. More studies are planned.

References: Reuters, "Mushroom extract may boost prostate cancer drug", August 1, 2006.

Two types of fungus have affected pumpkin crops throughout the northeast United States. The fungus causes mold to appear in spots on the pumpkins. The pumpkins begin to decompose and eventually rot. A combination of high temperatures and above average rainfall has fueled the fungus growth. Pumpkin production has been cut by more than half in some areas and consumers could see increased prices throughout the holiday season.

References: KDKA, October 6, 2006

Researchers in the UK have suggested that a common fungus, *Beauveria bassiana*, is effective in killing mosquitoes – a carrier of malaria. Malaria is a difficult disease to treat because the parasite becomes resistant to drugs and mosquitoes become resistant to pesticides. Malaria kills thousands of people every year. The fungus, upon contact, begins to grow inside the mosquitoes and eventually kills them. The key is to infect the insect with spores soon after they feed on infected blood so that the malaria parasite cannot be passed on. Laboratory results showed that malaria transmission was reduced by 98%.

References: BBC News, "Fungus may help to fight malaria", June 9, 2005.

Fusarium keratitis is a very painful and potentially serious eye infection which, if left untreated, can lead to blindness. It is caused by a species of *Fusarium* fungus and has been linked to soft contact lens wearers, particularly to a certain brand of contact lens solution. The contact lens solution has been recalled until further studies are completed. Fungal keratitis can be misdiagnosed by physicians as bacterial keratitis since the latter is more often associated with contact lenses.

References: Centers for Disease Control and Prevention, April 2006.

Most fungi in the *Fusarium* genus is widely distributed in soil and organic matter. Most species are harmless but some produce mycotoxins that can effect our food and our health. One such fungus that has threatened the world's banana and plantain crops is known as Panama Disease. It probably originated in Southeast Asia but was first detected in Australia in the 1870s. It is particularly known to attack single cultivars resulting in widespread damage. The popular Cavendish banana cultivar has been resistant until recently. Cavendish accounts for almost all of the bananas consumed in the western hemisphere. Unfortunately, there are no effective options to manage this destructive disease. Some limited management options include finding resistant strains and genetic engineering.

References: Plant Management Network International, November 2000.

Western Pennsylvania Mushroom Club
129 Grant Street
Greensburg, PA 15601

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Club Officers

President: Joe Luzanski, president@wpamushroomclub.org
27 Ted Road, West Newton, PA 15089, 724-872-7867
Vice President: Jim Strutz, strutzj@strutz.com (see Newsletter Editor)
Treasurer: George Yakulis, yakg@connecttime.net
4879 Christopher Drive, Allison Park, PA 15101, 724-444-6628
Secretary: Mary Jane Yakulis (see above)
Corresponding Secretary: Valerie Baker, vbbaker8@hotmail.com
1413 Parkmont Road, Allison Park, PA 15101, 412-367-7696

Committees

Cultivation Chairman: Mark Spear, msspear@penn.com
RR4, Box 237E, Kittanning, PA 16201, 724-297-3377
Education Chairman: Jim Tunney, aminitam@hotmail.com
6041 Stanton Avenue, Apt#1, Pittsburgh, PA 15206, 412-441-3958
LaMonte Yarroll (see Club Mycologists)
Festival Chairman: George Yakulis, yakg@connecttime.net
4879 Christopher Drive, Allison Park, PA 15101, 724-444-6628
Historian: Joyce Gross, jagart@verizon.net
58 Seventh St Ext., New Kensington, PA 15068, 724-339-8547
Hospitality Co-Chairs: JoAnna Jenkins, Shirley Caseman
Elaine Hruby, Eugene Kadar, Charlotte Tunney
Legal Council: Mike Lloyd, mllloyd@williamsoulson.com
Membership Chair: Dr. John Stuart
Mushroom Display: LaMonte Yarroll (see Club Mycologists)
Mid Atlantic Foray Chairmen: Dick Dougall, rsdme@imap.pitt.edu
202 Wadsworth Drive, Glenshaw, PA 15116, 412-486-7504
Glenn Carr, browncarrs@verizon.net
1848 Fairhill Road, Allison Park, PA 15101, 412-369-0495
Mycological Recorder: Bob Lucas, mlucas@microspell.com
5840 Northumberland St., Pittsburgh, PA 15217, 412-422-8976
Newsletter Editor: Jim Strutz, strutzj@strutz.com
82 Pilgrim Road, Carnegie, PA 15106, 412-276-7471
Photography Chair: Robert Boice, rlgym@aol.com
507 Offbeat Lane, Irwin, PA 15642, 724-446-0524
Publicity Chair: Susan Baker, smidwife@zoominternet.net
329 First Street, Butler, PA 16001, 724-283-9123
Sales Chairman:
Scientific Advisor: Walt Sturgeon, mycopossum@yahoo.com
Speakers Bureau: Dick Dougall
Joe Luzanski, Mike Lloyd, John Plischke III
Toxicology Chairman: Frank Lotrich, lotrichfe@msx.upmc.edu
7219 Witherspoon St. Pittsburgh, PA 15206, 412-661-0950

Walk & Foray Chair: John Plischke III, funqi01@aol.com
411 Center Ave, Greensburg, PA 15601, 724-832-0271
Web Master: Elizabeth Barrow, ebarrow@verizon.net
5840 Northumberland St., Pittsburgh, PA 15217 3412-521-9337
Welcoming Chairman: Mary Ellen Dougall, maried@verizon.net
202 Wadsworth Drive, Glenshaw, PA 15116, 412-486-7504
Harriet Yarroll (see LaMonte Yarroll, Club Mycologist)
Workshop Chair: Joyce Gross (see Historian)
Robin Durr, Dick Duffy
Yahoo Groups Moderator: Jim Strutz (see Newsletter Editor)
NAMA/NEMF Trustee: John Plischke III (see Walk & Foray Chair)

Club Mycologists

Robert Boice, (See Photography Chairman)
John Plischke III, (See Walk & Foray Chairman)
Kim Plischke, Ladiebugz@verizon.net
411 Center Ave, Greensburg, PA 15601, 724-832-0271
Dr. Fred Schrock, 610 South 7th St, Indiana PA
La Monte Yarroll, piggv@baqagi.chi.il.us
5770 Clark Ave, Bethel Park, PA 15102, 412-854-5684

Identifiers

Jack Baker, vbbaker8@hotmail.com, 412-367-7696
John Bumbarger, shrumall@yahoo.com
Doug Dickman, larshalfass@yahoo.com, 724-626-1542
Bob Lucas, (See Mycological Recorder)
Ed McConnell, ourmuthouse2@peoplepc.com
Jim Tunney, (see Education Chairman)

Walk Leaders

Valerie Baker, vbbaker8@hotmail.com, 412-367-7696
Glenn Carr, (see Mid Atlantic Foray)
Dick Dougall, (see Mid Atlantic Foray)
Dick Duffy, 412-486-3913
Robert Fornof, 412-767-9925
John Plischke, (see Past President)
Mary Lou Riegel, mriegel@federatedinv.com
Don Stone, dastonearch@yahoo.com
Charlotte Tunney, aminitam@hotmail.com

Past Presidents

Past President: Mary Woehrel, marigold4343@yahoo.com
Past President: John Plischke, morelbp@aol.com, 724-834-2358
Past President: Dick Dougall, (see Mid Atlantic Foray)