



Where Would We Be Without Mushrooms?

By Gary Lincoff

Not so long ago, it was generally believed that our local flora was well-known, of limited diversity, and relatively uninteresting. “Real” nature was out there somewhere in the tropics, the Amazon or Equatorial Africa, or exotic locales in the East, like New Guinea.

Now we know that we are living in a world we hardly know, among plants and mushrooms that are far more various, intriguing, and important than we ever imagined. A single tree in one of our parks, for example, could be host to dozens of different mushrooms. Many of these mushrooms, whose vegetative bodies are microscopic filaments connected to tree roots, grow underground in an unbelievably broad expanse and serve as transit systems, transporting needed nutrients from tree to tree.

Our urban and suburban parks and woodlands are a wood-wide web of filaments, hidden from view, that make our plants thrive. In addition, every plant, even the weeds we try to keep out of our lawns, like common plantain, contain fungal endophytes that live inside their tissues, protecting these plants against animal predators and fungal pathogens, and helping them to survive climatic extremes, too much water, drought, excessive heat, or freezing temperatures.

Without these unseen fungal endophytes, we wouldn't have beautiful lawns, or any plants in our yards, along our streets, or in our parks. Nobody knew this half a century ago, and few people are aware of it today. This is the “news” that should be on our local news stations. Without mushrooms, Pittsburgh would be a desert.

Identifying Boletes in the Pittsburgh Area

By Scott Pavelle & Dick Dougall

Boletes are a big category of mushrooms. Beginners and even many experienced mushroomers need to be cautious eating mushrooms new to them. A way of doing this is to become comfortable in identifying the ones we regularly find, good or bad, then adding additional ones in the future. In this article, we would like to discuss some common and distinctive boletes, and show how they relate to the general rules.

We've been trying *forever* to figure out a useful technique or key for identifying boletes. It's been a constant frustration because there are so few truly unique features, and most of the family are so desirable for pot-hunters. Aside from a few sick-makers, the general run of boletes ranges from good edibles on up to the spectacular King Bolete *a/k/a* Cepe *a/k/a* Porcini *a/k/a* *Boletus Edulis*. This article is a start toward the goal to create something a little more useful for beginners. Our aims are to (a) describe how to avoid the sick-makers, (b) come up with good descriptions of the “easy” boletes that people can learn right away, and (c) start to develop a system for learning to identify the more difficult varieties.

Anyone who's been on our Club walks has seen how hard it is to identify the boletes we find down to a single species. But it is surprisingly easy to decide if specific boletes are edible. All that takes is a small number of general rules. Condensed from the book by Bessette, Roody, and Bessette, *North American Boletes* (pp. 373-375), the rules are:

General Rules for Boletes (*for beginners looking for food*)

1. Avoid boletes with pore surfaces in the orange to red color range.
2. Avoid boletes that stain some shade of blue when cut or scratched.
3. Avoid boletes that taste bitter when a small bite of raw mushroom is nibbled.

If your bolete passes these tests, it's fair to assume that it's edible even though you have not identified it down to a particular species. If your bolete fails one of those tests, assume it is inedible until you learn better, *however never eat an unidentified mushroom*.

These rules are simple and are focused on beginners, but we really ought to understand them better before we jump into eating the boletes we find.

Red Pores and Blue Staining: A Mixed Bag

The books list maybe a dozen generic-looking boletes with buff or yellow pores that stain blue when bruised. A few of these are edible. Many are not, and according to lore (we have not tried it and are not about to) will leave you hovering around a toilet for at least a day, ejecting and/or eliminating. Identifying these mushrooms down to the species is very hard and tedious work, and unnecessary unless you want to get into the “advanced” areas. For beginners and pot-hunters the easiest and best solution is to avoid them.

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Register for the 14th Annual Gary Lincoff Mid-Atlantic Foray Now!

Have you marked your calendar?? Have you registered (either online or by mail)? The time has come!

The **14th Annual Gary Lincoff Mid-Atlantic Foray** will be held Saturday, September 13, 2014 at the Parish Hill hall in North Park. Guest speakers will include:

- **Gary Lincoff:** “Mushrooms and Plants: Connecting the Dots...”
- **Bill Yule:** “The Weird, Wacky and Wonderful: The Most Interesting Fungi I Have Met.”
- **Gary Emberger:** “How Do You Say That?”

Other activities will include

- guided walks for mushroom gathering
- mushroom identification
- sales of mushroom books and related items
- an auction, including some original myco-art pieces by artist Philip Ross, which have just finished a national tour
- cooking demonstration by Chef-restaurateur Tom Chulick (Back Door Café, Johnstown)
- light lunch (soup and dips)
- dinner mushroom feast
- our traditional after-party – this year at the Over the Bar Bicycle Café in the North Park Boathouse.

The morning will be devoted to guided walks and mushroom hunting. Choice edible mushrooms - including chanterelles, boletes, hen of the woods, and chicken mushroom – are usually found in abundance on these walks. Typically, over 100 different types of mushrooms – often some new ones – are found and brought back to “Foray Headquarters” for further identification and cataloguing.

Those who attended last year’s Foray know to bring rain gear, just in case. Walking shoes, walking stick, knife, basket, water bottle, bug spray, compass and whistle (for those who might wander far afield) are generally good things to bring along. You might wish to pack a sandwich if you plan to stay out past noon or have a bigger appetite.

Guest speaker bios:

GARY LINCOFF is the author or editor of numerous books and articles on mushrooms, including *The Audubon Society Field Guide to North American Mushrooms*. He teaches courses on mushroom identification at the New York Botanical Garden. A featured “myco-visionary” in the award-winning documentary *Know Your Mushrooms*, Gary has led mushroom study trips and forays around the world.

Gary Lincoff is again the Principal Mycologist at the Mid-Atlantic Mushroom Foray. He wrote the *National Audubon Society Field Guide to North American Mushrooms*, one of the best-selling mushroom books of all time. Gary has recently published a book, *The Complete Mushroom Hunter, An Illustrated Guide to Finding, Harvesting, and Enjoying Wild Mushrooms*. Gary’s insights about edible and poisonous mushrooms, picking urban mushrooms, mushroom recipes, and his experiences with wild mushrooms in various cultures around the world make it a delightful read.

The center of attention shifts back to our Parish Hill headquarters in the afternoon. Our Principal mycologist, Gary Lincoff, the author of the Audubon Field Guide to Mushrooms, will be our first speaker. Joining Gary as guest speakers this year will be Bolete specialist Bill Yule (Connecticut Valley Mycological Society and Connecticut Field Museum) and Wood-decay mushroom specialist Gary Emberger (Eastern Penn Mushroomers, Messiah College).

Throughout the day there will be an auction of mushroom-related items, and sales of mushroom books, hats, T-shirts and mushroom-hunting paraphernalia. Mycophagy, the tasting of mushroom dishes, will be another of the highlights of the afternoon program. WPMC club cooks usually prepare dozens of wonderful mushroom dishes. You won’t leave hungry and chances are that you will have tasted some entirely new things. Since we have to wrap up our Parish Hill activities at 7 PM, an “after party” of coffee and desserts is planned at Over the Bar Bicycle Café in the North Park Boathouse on North Park Lake. It’s a nice chance to unwind after a long day and socialize with our guest speakers.

Special thanks to team leaders Kim Plischke (Cooking), John Stuart (Walks), Mike Ott (set-up & clean-up), G. Mueller (sales), Sandy Sterner and Jim Wasik (registration), Cecily Franklin (publicity and auction) and Richard Jacob (audio-visual).

Volunteers are still needed for cooking (a.k.a. mycophagy: mushroom-eating), general hospitality (meet & greet, orient & help folks find their destinations), set-up and clean-up.

Remember: this is your club, this is your Foray, and we need you to help make it an educational, interesting and fun day! You can register online: <http://wpamushroomclub.org/lincoff-foray/> or by mail (registration form on page 10).

Register by September 1st and save \$5. To volunteer, or if you have any questions contact Foray Chair Barbara DeRiso at barbara-deriso@gmail.com.

We hope to see you there.

Gary has his own website that includes much help for beginners, info on toxicity, and scientific articles on DNA classification of mushrooms. He is a past-president of the North American Mycological Association and chairs the awards program for that organization. Gary is in high demand as a speaker for mushroom organizations all over North America and has traveled the world studying mushrooms and their relationships with the local culture. We are extremely fortunate to have him come to our foray the Fourteenth time.



Guest speaker bios:



BILL YULE is an Environmental Educator at the Connecticut River Museum in Essex, CT. He has studied mushrooms for over 20 years. He is “interested in all things fungal”, but Boletes are his primary focus. (He uses the name “boletebill” when submitting comments to our Yahoo Groups.) Bill is actively involved with the Connecticut Valley Mycological Society and the North East Mycological Federation

and has given talks to a wide variety of mycological, educational, and environmental groups. His greatest satisfaction is helping other mushroomers learn to identify and appreciate fungi. Bill’s lecture is entitled: “The Weird, Wacky and Wonderful: The Most Interesting Fungi I Have Met.”



GARY EMBERGER has taught biology, including introductory mycology, at Messiah College in south central Pennsylvania for 33 years. He completed a B.S. in biology at PSU and earned a masters and a doctorate degree in plant pathology at Penn State University and North Carolina

State University, respectively. He is the author of the online identification guide *Fungi Growing on Wood* (www.messiah.edu/Oakes/fungi_on_wood/index.htm) which includes keys, photographs, and descriptions of over 250 fungi typically found associated with wood. A member of both Eastern Penn Mushroomers and WPMC, Gary gave a talk on “Using and Making Keys for Identification of Fungi” at the 2011 Lincoff Foray.

A brief description of Gary’s talk: “How Do You Say That?”

“You say Aman-eye-ta, I say Ama-knee-ta. You say R-us-you-la, I say Rue-shoe-la. Let’s call the whole thing off.” Who hasn’t thought at times that scientific names are basically unpronounceable collections of consonants and vowels? Do people really know how to pronounce genus names such as *Hohenbuehelia* or *Hypsizygus* or *Piptoporus*? Believe it or not, some rather straightforward guidelines exist to pronouncing these names. Join us as Gary Emberger, biology professor at Messiah College, guides us on a light hearted and informative survey of the “rules” for pronouncing scientific names of fungi and plants.

Foray favorite **TOM CHULICK** is the Chef-proprietor of the Back Door Café, located in the newly-created Cultural District of Johnstown, PA. After receiving an Associate’s degree in Culinary Arts, and cooking at the Rolling Rock Club in Ligonier, Tom and wife Denise opened the Back Door Café. Excellent reviews followed, and in 2011 Tom received an Achievement of Excellence Award from the American Culinary Federation. He is now a certified Executive Chef through the American Culinary Federation. Tom’s cooking demo will utilize wild mushrooms harvested just before the Foray.



San Francisco Artist Donates Mycelium Bricks to Foray Auction

Those of you who belonged to the Western Pennsylvania Mushroom Club back in January of 2012 might remember the “Intimate Science” exhibition at Carnegie Mellon University, featuring the “Mycotecture” of Philip Ross, San Francisco-based artist, inventor, and scholar.

From Pittsburgh, “Intimate Science” traveled to five other U.S. cities, completing its run in New York City in April of 2014. Since then, Ross has donated seven of his mycelium bricks to WPMC for the Lincoff Foray auction on September 13, 2014. These mycelium bricks were cultivated from the *Ganoderma lucidum* species.

To further advance the commercialization of mycelium-based products and applications, Ross co-founded MycoWorks in Silicon Valley. To watch a video explaining how Ross cultivated these mycelium bricks, in his own words, visit www.mycoworks.com.



TOP RIGHT: Phil Ross explains some of his works at Carnegie Mellon University in 2012.

FAR RIGHT: These unique building materials were highlighted during “Intimate Science”, a national touring exhibition.

*RIGHT: Ross cultivates *Ganoderma lucidum* for all of his sculptures and mycotecture.*

Identifying Boletes... continued from page 1

Here are three common, local mushrooms that relate to the part of the edibility rules about pore color and blue staining, and are worth learning. They are:

- Two-Color or Bicolor Bolete (*Boletus bicolor*)
- Red-Mouth Bolete (*Boletus subvelutipes*)
- Frost's Bolete (*Boletus frostii*)

The Bicolor Bolete, very common in Western Pennsylvania, has a red/rose cap and bright yellow pores. The flesh is yellow, and so dense it can almost feel like you're cutting a piece of cheese. When cut or bruised, the Bicolor may stain blue but will do so very slowly. Those in the Club who have eaten it have enjoyed it. Scott is a particular fan. Note that some experts now say that Bicolors are a species "complex" rather than a species; *i.e.*, a set of physically identical but genetically distinct mushrooms. If so, the whole complex seems to be indistinguishable once it's in the pot. You can learn how to correctly identify this bolete.

The pores of the Red-Mouth Bolete are definitely reddish/orangish and it stains blue everywhere almost instantly when cut or bruised. This is one of the mushrooms that the rules tell you not to eat, and it is listed as poisonous in the field guides. It's big and beautiful, but don't eat it.

Boletus frostii is the mushroom that breaks the rules. It has a scarlet cap, red pores, and strongly stains blue. However, it is a good edible. It is included on our list because it is a distinctive mushroom, especially around the stem which is very red and has such a deep, coarse pattern that it can almost be called "shaggy". If you work a little, you can easily learn to identify it, but it is NOT a beginner's mushroom. *Frostii* are not particularly common, but they do show up most years. We find it many times when the specimens are unfortunately too old to eat.

The Most Distinctive Boletes: Old Men of the Woods, Corrugated Boletes, and the Parasitic Bolete

The Old Man of the Woods (*Strobilomyces floccopus*) is a very distinctive bolete. Its coarsely scaly grayish-black cap is really unique. Once you have found one, you will not forget its appearance. We used the plural "Old Men" because there is another very similar mushroom, *S. confusus*. Check the field guides for their differing characteristics. It is in the shape of the ornamentation on their caps; unless you are very intense about identification, they are essentially the same mushroom.

The Corrugated Bolete (*Boletus hortonii*) is a good edible with dense, yellowish to buff pores and a very distinctive brown cap that is almost as deeply wrinkled and textured as a morel. They don't grow particularly large (no more than 3"-4" across), but they tend to be found in patches. Some years they are relatively common, and other years they never appear at all.

Another "can't miss" bolete is the Parasitic Bolete (*Boletus parasiticus*). Its unique trait is that it grows out of a Pigskin Poison Puffball (*Scleroderma citrinum*). It is rather plain in appearance, but no other bolete has this habitat.

Now comes the question of edibility. All three are considered edible, but Old Men and Parasitic Boletes are just "okay" on the edibility scale, with Corrugated Boletes a notch higher. Words of caution are also attached to the Parasitic Bolete because the puffball is toxic.



Strobilomyces floccopus

An identification bonus comes with the Parasitic Bolete because when you find it, you know the identity of its partner puffball which is one every beginning mushroomer should learn to recognize.

Edulis Heaven and Tylophilus Hell: The Bitter Rule

Here's the #1 question on local boletes. It's so common that we can quote it from memory:

I've got this mushroom that looks a lot those ones on the cover of my book, and the description in the book says: "The best eating mushroom in the world." So I need to know! Have I fallen into mushroom heaven with a Porcini/Cepe (*Boletus edulis*) or mushroom hell with a Bitter Bolete (*Tylophilus felleus*)?

Okay. It's not exactly "easy," but there are ways you can be fairly confident about this particular ID. Follow these in order:

First, do the pores have a pinkish shade? If so, you have a bitter bolete and can throw it away. Porcinis are never pink. But bitters don't have to be pink, so seeing nothing but buff shouldn't fill you with confidence. It's just a weed-out test.

Second, is the stem a little squishy, as if it was filled with cotton instead of solid mushroom? If so, you probably have a bitter bolete though you might have a porcini with a bug problem. If that doesn't discourage you, cut into the stem lengthwise to be sure. Bitter boletes have lots of natural airspace, while porcinis are naturally "solid". So if it's squishy and you see no bugs, toss it.

If it's not squishy, you can start to get your hopes up. Same thing if you think you're looking at bug damage more than structure. Of course, bitters can get buggy too...

Third, did you find it in Allegheny County? It's a terrible reality to face, but an undeniable one nevertheless. Bitter boletes are common in the areas closest to Pittsburgh, and porcinis are exceptionally rare. So your odds are very poor if you found the specimen in Allegheny County. The odds go up drastically when you head toward the Laurel Highlands, however...

Fourth, look carefully at the reticulations (the netting pattern) on the stem. Is it distinct and dark or vague and light? Would you believe that some very respectable experts consider that to be an easy distinguishing mark? We don't, because you need very good eyes to see the difference and wishful thinking can change what you think you're seeing. For what it's worth, bitters are supposed to have the dark netting. If you see a distinct and dark pattern, toss it.

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Boletus Frostii



Boletus Edulis



Boletus Bicolor

But I still can't tell for sure! Okay, cut a little piece off and touch it to your tongue. 90% of the population will have a very strong and immediate reaction to a bitter bolete – so much so that one mistaken I.D. can famously ruin an entire pot roast for a family of ten. If you fall in that 90%, you'll know right away. (This would be the best field test too if it didn't require you to taste every one of a basketful of mushrooms).

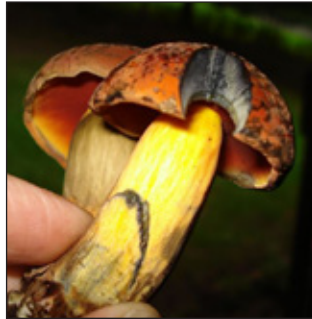
If you have no reaction to the taste, remember that you might be in the 10% minority. At that point you'll need to test it on a friend... or else you can cook them up for yourself alone. Bitter boletes aren't shunned because they're toxic, but only because they taste so incredibly bad. So if you're one of those people who lack that particular taste receptor, feel free to enjoy your bounty.

	Bicolor (Boletus Bicolor)	Frostii (Boletus Frostii)	Red Mouth Bolete (Boletus Subvelutipes)
Cap Features	Distinctly red-toned, in a shade ranging from dark pink through red and on to brick. May show cracks.	Brilliant red, often described as a "candy apple" or "blood" shade. Often shows a thin yellow band around the edge.	Not distinctive because it varies annoyingly from yellow-brown to red-brown. May have a yellow rim.
Pores	A distinctive bright yellow with very small pores when young and prime, but the color dims and the tubes get more open with age.	Bright red, occasionally edging more toward brick. Tends to get paler with age. May have yellow droplets when young.	Brick red, sometimes shading toward orange.
Stipe (stem)	A mix of very red and very yellow, tending toward more yellow as you go higher. Often bulbous, but sometimes more pillar-like.	IMPORTANT FOR DISTINGUISHING FROM RED-MOUTHS. The pillar-shaped stem is very red and has deep, coarse patterns almost to the point of being shaggy.	Some variant of tan, red or yellow, getting lighter toward the top. Fairly smooth and not distinctive. Usually a thick pillar shape.
Staining*	May blue just a little, but very slowly.	Heck yeah. Stains blue, and does it quickly unless very old.	Heck yeah. Stains instantly blue unless very old.
Context	Yellow	Yellow, but it's hard to tell before the staining takes over.	Yellow, but it's hard to tell before the staining takes over.
Notes	The most common and popular eating bolete in the area. Actually a spectrum of sub-species, which accounts for some of the variation.	The one that breaks all the rules. Do NOT get it confused with the Red-Mouth Bolete. Make sure you have the candy-apple red, and the coarse stem.	Can be quite large and often looks very inviting. Don't be fooled.
Edibility	Excellent. Think porcini (cep) with half the flavor	Most people love it, but some do not. Has a distinct sweet/sour note.	NO. A NOTORIOUS SICK-MAKER.
	Old Man of the Woods (Strobilomyces Floccopus)	Corrugated Bolete (Boletus Hortonii)	Suillis (a guide to the genus)
Cap Features	Shaggy black, white and gray surface. The exact pattern changes drastically, but there is nothing like it.	Brown, and so deeply wrinkled that you can almost compare it to a morel	Has a peelable skin that turns slick/slimy when wet
Pores	Whitish grey	Yellowish to Buff	Typically a deep, dull yellow, getting browner with age. All Suillis have very large pores.
Stipe (stem)	Thin and tough enough that you don't eat it. Heavily patterned in blackish and whitish	Buff and pillar shaped	May be either thin or pillar shaped. Many (but not all) Suillis have a veil, which is true for no other bolete.
Staining*	Stains pink, then darkens.	May blue just a little, but very slowly.	Varies with species
Context	White until it stains	Buff (yellowish white) until it stains	Varies with species
Notes	Has less mass for its weight than you'd think. Once someone shows you a specimen, you'll never mistake it for anything else.	Nice, dense, texture	Slippery Jacks are a very common Suillis. Found only under White Pines.
Edibility	Okay but not special. Tends to stain your food black, so take that into account.	Darned good. Think porcini (cepe) with a third the flavor.	So so. Your classic Babky.

* Very old and very young specimens tend to stain less distinctly.



Boletus Parasiticus



Boletus Subvelutipes

One final note on *Edulis*. There is a yet-to-be-found-in-the-area mushroom that has been causing a stir among *Edulis* hunters from Michigan to Connecticut. It is called *Boletus huronensis* and has been accused by knowledgeable experts in several cases of severe GI distress. It appears to be one of those situations where a certain percentage of the population has trouble digesting an unknown chemical in the mushroom, and those who have the problem get a toilet-oriented reaction. *Huronensis* stains blue/green while *Edulis* does not. So that should be a final test even after you've excluded Bitters from consideration.

It may sound like a lot of trouble, but *Edulis* are worth it if you can find them. There's a reason they are called the King.

Some notes on the category of "Edible but Obscure" Boletes

In Europe, this mass of edible but not special boletes are often called "Grandma Mushrooms," a/k/a *Babky* after the word *Baba*, meaning "Grandma." The name arose because elitists would ignore the trove while frugal old ladies with large families would eagerly stock up for the winter. Boletes only improve when dried, which Grandma also liked.

Of course Grandma also knew—as you do—that every wild mushroom has to be thoroughly cooked before you eat it. Even some of the best edibles contain chemicals that can make you ill if you try to eat the mushroom raw, and various bugs and critters from the wild can leave behind invisible traces that have the same effect. So *always cook your foraged mushrooms all the way through, including your boletes*. Yes, there are exceptions, but we consider the ability to identify those exceptions as quite "advanced."

FYI, one of the biggest subcategories of local *Babky* are the genus *Suillus*. They are a great category for stretching your bolete legs because they are all edible and relatively easy to identify—at least down to the genus. Some distinguishing characteristics are:

- All *Suillus* have very large pores.
- *Suillus* are the only boletes that have a veil on the stem. If you find a bolete with a veil there, it is a very high possibility it is some kind of *Suillus*.
- *Suillus* typically have a skin on top that gets slimy when wet.

One particularly common *Suillus* is the Slippery Jack. They grow exclusively beneath White Pines and are the perfect example of what it means to be a *Babky*: they are edible but unexciting, they actually improve with drying, and they make fine additions to the potato soups and other plain but wholesome foods you'd expect from a Czech or Polish *Baba*.

DNA barcoding update

by Richard Jacob

In May, the WPMC held its first DNA barcoding course. About 15 people attended for a pleasant day of lectures, mushroom hunting, and sample annotation. A total of 10 different species were annotated and DNA samples collected on FTA cards.

The samples from the course plus last year's Lincoff Foray and other general samples have now been processed by the Vilgalys laboratory at Duke University. Renee Johansen, a visiting Fulbright Scholar from the Univ. of Auckland, was instrumental in getting the DNA extraction and PCR portions of the project off the ground. Renee is using next generation sequencing techniques to characterize mycorrhizal fungal communities associated with European marram grass (*Ammophila* sp.), an invasive species that competes with native dune plants in New Zealand and North America. Fortunately Renee had some spare time to work on our project.

As some of you may remember, we take a small portion of the fungi fruiting body and squash it on a specially treated filter paper or FTA card. When the mushroom is smashed, the cells are broken open and the DNA inside them is captured by the filter paper's fibers. The samples on the cards are stable at room temperature for many months, although there is a danger of contamination.

The general procedure for the analysis of our samples is to extract the DNA from the FTA cards and amplify the "barcode" portion using the polymerase chain reaction (PCR) technique. The PCR products are then separated on a gel and checked for purity before submitting to DNA sequencing. The resulting raw DNA sequencing traces are then analyzed and a complete DNA barcode sequence is assembled. The DNA barcode sequence is then searched against the public databases to see if there are any identical or similar matches to species in the same family.

For our samples, the DNA extraction and PCR was reported to have gone well with only three out of all of the samples that we submitted failing to produce a viable amplified DNA product. After the purity check, the PCR products were sent to sequencing. Preliminary results show that 12 of the first 15 samples that have been analyzed produced good quality sequences for the ITS barcode region (most of them for LSU as well). Even better news, from the database searches is that they all either match well enough with our ID's or are close, so we don't seem to have any contamination problems at this stage.

We are currently awaiting more detailed results for these and the rest of the samples. When the sequence analysis is completed they will be entered into the public Genbank database. The samples have been dried, will be stored at Duke herbarium, and entries will be created in the MycoPortal online data repository. This will allow researchers worldwide to find and access the specimens and results that they can use to refine the classification of fungi species or in other projects.

Walks & Forays 2014

IMPORTANT WALK AND FORAY INFORMATION:

Try to dig up 3 of the same species at different stages of development. Don't pick old mushrooms; leave them to drop their spores.

You are responsible for not getting lost, if you have that tendency to wander off and get lost, stick like glue to others. We won't wait for you, and we won't come to look for you. Don't take the identification of the person standing next to you, they might not know as much as you do. Only club mycologists and identifiers should be used for advice. The Walk Leader will tell you when to be back at the walk starting place where the mushrooms will be put on paper plates and the Walk Identifier or Club Mycologist will put names on only the mushrooms that they know well. Take notes and pictures to help you remember the mushrooms. You should go home and check books yourself. Whether you decide to eat a mushroom, is ultimately only your decision.

WALKS AND FORAYS CHECK LIST:

- Bring a buddy or two. *Do not forage alone!*
- Dress for the weather / rain poncho
- Bring drinking water and lunch
- Insect repellent
- Basket for collecting
- Knife for cutting mushrooms
- Wax or paper bags (no plastic) Keep mushrooms separated
- Whistle
- Compass
- Hand lens
- Cell phone & camera
- Notebook & pencil
- Field guide for identification
- Band-aids
- Garden hand-clippers

HELP KEEP OUR PARKS CLEAN! When mushrooming, it's easy to bring a plastic grocery bag to collect cans, bottles or other trash you find. Trash cans are generally found nearby. If not, take it home for disposal. *Leave the parks cleaner than you found them!*

Mushroom Forays 2014

August 24 – 30

Eagle Hill Institute / Amanitaceae Taxonomy: Fundamentals and Microscopy to Barcodes with Rod Tulloss and Chistina Rodriguez-Caycedo. Visit: www.eaglehill.us click on "2014 courses"

September 4 – 7

COMA's Annual Clark Rogerson Foray. Berkshire Hills Emmanuel Camp, Copake, NY. Visit: www.comafungi.org/special-events

September 13 / 8:00 am – 7:00 pm
WPMC 14TH ANNUAL GARY LINCOFF
MID-ATLANTIC MUSHROOM FORAY
Parish Hill Hall, North Park

September 26 – 28

Sequanota Annual Foray. Jennerstown, PA (details to come) Mycological Association of Washington. Visit: mawdc.org

October 4 – 5

Ohio Mushroom Society Fall Foray. Mt. Airy Arboretum. Dick Doyle. Visit: ohiomushroomsociety.wordpress.com

Mushroom Walks 2014

September 21 / 2 pm

LEADER: WVU professor Dan Panaccione

LOCATION: West Virginia Botanical Gardens

1061 Tyrone Road, Morgantown, WV 26508 / www.wvbg.org

October 4 / 10 am

LEADER: Park Naturalist for Mushroom Mania

LOCATION: South Park Nature Center

2075 Buffalo Drive / South Park, PA 15129 / 412-835-4810

Learn the lore, see the strange, and taste the terrific of local wild mushrooms. Visit: www.county.allegheny.pa.us

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**Wild Mushroom Ravioli
with Walnut Sauce**

½ cup dry Porcini (or other dried wild mushrooms)
 1 lb Fresh Wild Mushrooms, cleaned and chopped
 3 Tbsp Extra Virgin Olive Oil
 4 cloves Garlic, minced
 2 Tbsp Flat Leaf Parsley, minced
 2 tsp Fresh Thyme, minced (or 1 tsp dry)
 ½ cup Whole Milk Ricotta (you can substitute tofu for dairy free)
 ¼ cup Parmesan, grated
 1 tsp Sea Salt
 Freshly Ground Pepper
 Pasta sheets

Soak the dry mushrooms for about ½ hour in warm water. Drain the mushrooms reserving the liquid for later. Meanwhile, heat a sauté pan over medium, high heat. When the pan is hot add the oil and the garlic. Sauté the garlic until it just begins to brown and add the mushrooms. Sauté until the mushrooms are softened and they have released their liquor. Add the parsley, thyme and season with salt and pepper. Cook for a few more seconds to let the herbs perfume the mixture. Remove from the heat and stir in the ricotta, and parmesan (or Tofu). Let cool for at least 30 minutes before assembling the ravioli.

To make ravioli you will need sheets of dough (either homemade or store bought), water to brush the dough where you want to seal it, and the cool mushroom mixture. Once the ravioli are assembled they will need to be cooked for 3 minutes and eaten immediately. Toss with your sauce and Enjoy!

WALNUT SAUCE

1 medium, waxy potato, boiled, and peeled
 1 large Red Bell Pepper, roasted, and peeled
 4 cloves Garlic, peeled, and mashed
 1 tsp good Paprika
 ½ tsp Sherry Vinegar
 ½ cup toasted Walnuts
 1 cup Extra Virgin Olive Oil
 Sea Salt and Freshly Ground Black Pepper to taste

Place all of the ingredients except the oil in a blender and blend on high until all of the ingredients are smooth. Drizzle the oil into the blender while it is on and blend until all of the oil is incorporated fully. You may need to thin the sauce with warm water or stock, then season with salt and pepper. Drizzle onto ravioli and top with some more chopped toasted nuts, some extra grated cheese, and some chopped parsley.

Jeffrey Berkowitz, Life Design Health Coach and Recipe Development Chef at New Life Kitchen - Demonstrated at WPMC August 2014 meeting.

Other Events

Tomato and Garlic Festival

Phipps Conservatory and Botanical Gardens, in conjunction with the Greater Pittsburgh Community Food Bank is hosting the **10th Annual Tomato and Garlic Festival** on Sunday, August 24th from 11:00 AM to 4:00 PM on the Phipps' grounds.

Barbara DeRiso and Valerie Baker will be representing WPMC at a designated table featuring some wild mushroom species found in Western PA. Club membership forms, website cards, and information about the upcoming Lincoff Foray will be on hand. Their WPMC table was the most visited table at the Festival last year. The event is free and open to the public, and admission to the Conservatory is free for any visitor with a donation of fresh produce either brought from offsite or purchased at the farmers market on the front lawn.

There are cooking demonstrations, tomato contests, garlic roasting, activities for children, and shared expertise from local environmental organizations such as ours.



WPMC member, John Plischke III will be giving talks at the **Mother Earth News Fair**, a fun-filled, family-oriented sustainable lifestyle event at Seven Springs, September 12 - 14, 2014. John's talks will be held at:

Friday, Sept. 12 • 2:30 - 3:30pm GRIT Stage

Saturday, Sept. 13 • 1:00 - 2:00pm PASA Stage

Saturday, Sept. 13 • 5:30 - 6:30pm Mother Earth Living Stage

Other fungi associated talks:

Shiitake Mushrooms: Growing, harvesting and preserving

Mycoremediation of Home and Farm Waste

Shrooming Off the Grid

Medicinal Mushroom Gardens

For more information & tickets visit:

<http://www.motherearthnews.com/fair/pennsylvania.aspx>

**BioBlitz**

Duff Park, Murrysville, PA

September 26-27, 2014

Dr. Kyle Selcer of Duquesne University

The Bioblitz should be a very informative and educational event, with participation by many specialists and experts.

WPMC Meetings:

Meetings are held at 7 pm on the 3rd Tuesday each month from March through November at: Beechwood Farms (Audubon Society of Western PA) 614 Dorseyville Road • Pittsburgh, PA 15238

- Sept. 16** MUSHROOM TABLE TALK:
Club Mycologists and Identifiers
Gary Lincoff Foray Review
- Oct. 21** ELECTIONS / PHOTO CONTEST RESULTS
- Nov. 18** SURVIVORS POT LUCK / MEMBER AWARDS /
OPEN PHOTO FORUM

WPMC Membership

Thank you all who have renewed your membership. As of August, 2014, membership is over 395. Please report any changes (address, email, etc) to Jim Wasik at membership@wpamushroomclub.org.

WPMC Newsletter

The Newsletter of the Western Pennsylvania Mushroom Club is published five times a year: March/April, May/June, July/Aug., Sept./Oct., and Nov./Dec. Articles, photos, news items and other submissions should be sent to the editor at least 6-8 weeks prior to targeted distribution. The editor cannot guarantee that submissions will be included in the next newsletter. 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.

NEWSLETTER PRODUCTION:

Cecily Franklin, Martha Wasik Graphic Arts Inc
Send submissions to: membership@wpamushroomclub.org.

2015 Newsletter Change:

Hard Copy Newsletters – In order to offset the production costs and postage of HARD COPY (printed) WPMC Newsletters, the Board of Directors has established a \$5 surcharge for those members who chose to receive hard copy newsletters through the mail.

There will be no change in basic Membership dues:

Single: \$15 Family: \$20 Student: \$10

Members requesting hard copy will be charged an additional \$5.

2014 WPMC Photo Contest

DEADLINE FOR SUBMISSIONS:

- September 30, 2014
- Maximum of 5 entries per WPMC member
- Submit high resolution JPEG files no larger than 4 megabytes
- Email entries to Rebecca Miller at rmtreesplease@gmail.com

WPMC PHOTO CONTEST RULES:

You must be a member of the Western Pennsylvania Mushroom Club in good standing to enter. Club dues must be up to date. Visit the WPMC website for complete rules & categories.

Western Pennsylvania Mushroom Club Officers and Committee Chairs

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Mary Jo Smiley
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Check our website for a complete list of the year's events.
contact@wpamushroomclub.org

WPMC YAHOO GROUPS:

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

NORTH AMERICAN MYCOLOGICAL ASSOCIATION (NAMA):

www.namyco.org



WPMC MEMBERSHIP FORM

Anyone who has an interest in wild mushrooms is welcome to become a WPMC member.

COMPLETE THIS FORM **PRINT CLEARLY**, SIGN AND MAIL

Members are entitled to:

The WPMC newsletter • Nine monthly WPMC meetings • Free participation in WPMC walks • Fee discount for WPMC forays

Name (s) _____ Date _____
 Address _____
 City _____ State _____ Zip _____
 Phone 1 _____ Phone 2 _____
 E-mail (PLEASE PRINT CLEARLY) _____
 Interests (e.g.: foraging, identification, cooking, etc.) _____

Please print in plain block lettering. Take special care with email addresses: numeral "1", uppercase "i" and lowercase "l" look the same.

ANNUAL DUES: \$15 Individual \$20 Family \$10 Full-time Student Amount enclosed: \$ _____

Please return completed, signed and dated form (with check payable to Western PA Mushroom Club) to:

WPMC, c/o Jim Wasik, 70 Woodland Farms Road, Pittsburgh, PA 15238 e-mail contact: membership@wpamushroomclub.org
 or visit www.wpamushroomclub.org to pay using credit card.

Please indicate your newsletter/event announcement preference: Electronic via e-mail Hardcopy via US mail

Western Pennsylvania Mushroom Club 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 _____, 20_____.

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 current and future WPMC events.

MEMBERS:

Signature (if Participant is under age 21, signature of Parent or guardian)	Please print name:
1 _____	1 _____
2 _____	2 _____
3 _____	3 _____
4 _____	4 _____

Signed release form will be in effect from date of membership until termination of membership.



Western
Pennsylvania
Mushroom
Club

202 Wadsworth Drive
Glenshaw, PA 15116

Fungi, fun and friends!



NEXT MEETING 7:00 PM:

SEPT. 16, 2014

Beechwood Farms:

Audubon Society of Western PA

WPMC Goals

- Provide organized walks and forays
- Teach scientific methods of wild mushroom identification
- Explore various art forms including photography, dyeing, and paper-making with mushrooms
- Share mushroom recipes
- Educate members and the public about the many aspects of wild mushrooms

NEVER EAT AN UNIDENTIFIED MUSHROOM



Mushrooming is a Treasure Hunt!

Check out the White Chicken Mushroom (*Laetiporus cincinnatus*) that Mike Ott found on August 8, 2014.

It weighed 11 pounds and was in perfect condition.