



NJMA NEWS

THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION

Volume 35-5 September - October 2005



NJMA OFFICERS

President – Jim Barg
Vice-President – (open)
Secretary – Ania Boyd
Treasurer – Bob Peabody

DUES

Payable on calendar year
Individual: \$15.00
Family: \$20.00
Mail checks (payable to NJMA) to:
Bob Peabody
50 Alfalfa Hill
Milford, NJ 08848-1727

NJMA WEBSITE

www.njmyco.org
Bob Hosh, Jack Barnett, and
Steve Gleason

NJMA NEWS

Editor: Jim Richards
211 Washington Street
Hackettstown, NJ 07840-2145
email: jimrich17@netzero.com
Art director: Jim Barg
email: jimbarg@bssmedia.com
Circulation: Susan Hopkins
Deadline for publication:
10th of even-numbered months.
Send ONLY newsletter submissions to
the editor. All other correspondence
should be sent to the secretary:
Ania Boyd
181 Highland Avenue
Montclair, NJ 07042

CALENDAR OF UPCOMING EVENTS

Sunday, September 18 Grete Turchick Foray and Picnic –
10:00am Stokes State Forest (led by Grete Turchick)
Potluck picnic after foray – see details on page 3

Sunday, September 25 NJMA FUNGUS FEST –
11:00am – 4:00pm Somerset County Environmental
Education Center, Basking Ridge, NJ

Sunday, October 2 Foray –
10:00am Rancocas Audubon Nature Center
(led by Bob Hosh) Microscope session after the walk.

Saturday, October 8 Microscopy Workshop – Rutgers
10:00am – 3:00pm *(led by Gene Varney and Glenn Freeman)*
See details and registration form inside on page 3.

Sunday, October 9 Foray –
10:00am Belleplain State Forest (led by Rod Tulloss)
This is a new foray location.

Sunday, October 16 Foray –
10:00am Washington Crossing State Park
(led by Glenn Freeman)

Saturday, November 5 Foray –
10:00am Brendan T. Byrne State Forest (formerly
Lebanon State Forest) (led by Susan Hopkins)
With special guest mycologist, Jim Trappe

Sunday, November 6 Meeting & Lecture at SCEEC
2:00pm Our first regular meeting of the season will
feature special guest mycologist Jim Trappe
“Trees, Truffles, and Beasts: How Forests Function”
(See abstract article and bio of Jim Trappe on page 4)

Sunday, November 6 NJMA Photo Contest Deadline *(see page 12)*

Saturday, November 12 NJMA Culinary Group Soup Supper
7:00pm at the Long Hill Rescue Squad, Gillette, NJ

Directions to all forays and events can be found at
www.njmyco.org or in the May-June 2005 issue of the NJMA News.

Directions to SCEEC (Somerset County Environmental Education Center) – (908) 766-2489
Route 287 to Exit 30A (North Maple Avenue/Basking Ridge). Follow North Maple Avenue as
it heads left and becomes South Maple Avenue in town. Follow South Maple Avenue past
Lord Stirling Stables. Go left on Lord Stirling Road. SCEEC is about a mile in on the left. Park
in the lot, NOT in front of the building. Meetings start at 2:00 pm. Beverages are provided.
Please volunteer once in a while to provide snacks (home baked preferred).

Attend the NJMA
**BEGINNER'S
MICROSCOPE
WORKSHOP**
SATURDAY
OCTOBER 8
COOK COLLEGE
(RUTGERS)
NEW BRUNSWICK
\$10 per person
Registration form on page 3



PRESIDENT'S MESSAGE

Hello NJMA members and members-to-be!

I really can't begin my presidency without thinking of the tremendous jobs done by our past presidents Jack Barnett and Susan Hopkins. They both deserve tremendous respect for their work and dedication in helping to shape what NJMA is today. And, now it's my turn, but really, it is YOUR turn, because I am going to need the help of each and every member, seasoned veterans AND newcomers, to keep us running and to move us forward. Without trying to sound clichéd, a club is only as strong as its membership, and I'll be needing your help and your input throughout my term of service.

Specifically, to Jack and Maryanne: Best wishes to you both in your new Kentucky home from all of us here back in NJ. We will miss you, as you were both dedicated contributors to NJMA. We do hope that you'll both come around again to spend some time with the "ol' shroom heads" back here in New Jersey.

And now some words for our newcomers: For many of us, mycology is a passion (some might even call it an obsession). Every day in the woods reveals dozens of wondrous discoveries. Let's face it: Mycology is probably one of the least pursued sciences. Many times we, as amateurs and professionals alike, stumble on things that no one has bothered to look at or wanted to look at. Many things are beautiful, many are so ugly that they would make your local trash collector run in disgust. Some are enticing foods which we get "for free", and some are deadly poisonous, but they're all fascinating. We understand that fungi are an essential part of the ecosystem, and we take delight in finding, photographing, collecting, and identifying those things which no one else seems to want to bother with. Such is the mystique of what we do, and maybe it's that mystique which makes so many of us so passionate.

And for our regular "seasoned" members, our goal together should be to foster that passion in our new members. Being one of the most active mushroom clubs in the northeast, NJMA offers dozens of opportunities for newbies and seasoned veterans alike. We need to make sure that new members, both "pot hunters" and the technically-minded, feel at home. It's important to make sure that our (sometimes) technical field does not intimidate those who do not have biological expertise into abandoning their memberships. At the same time, I don't want to "dumb down" our outstanding technical emphasis. It's a difficult balancing act, but there are enough club activities all year 'round to excite everyone who's interested in the many areas of our field. We are a diverse association (and I never want that to change), but we truly do need to attract and retain more new members. I want to hear your ideas on how we can

assure that new members don't get "left in the dust" when they come to their first meeting or foray after Fungus Fest. Feel free to contact me by email at jimbarg@bssmedia.com, or call me at 908-362-7101 (no matter what you'd like to talk about!)

That said, I want to thank our membership and the Nominating Committee for putting your trust in me, and together, we can indeed keep the NJMA ranking as "The Best Club in New Jersey!"

And, it's fall too, so Happy Mushrooming!

– Jim Barg

And...one more thing: You've probably noticed that this issue of NJMA News is quite late. Both Jim Richards (our editor) and myself have asked various members to contribute articles by the 10th of the month prior to the publication of each newsletter. This time around, not only did we not receive articles on time, we also did not receive many articles which were promised. (OK, so some of you have the NEMF foray as an excuse...that's OK, we'll forgive you on that one!) I hate to whine and moan (but sometimes another person does), so we ask that if you commit to writing an article, follow through, write it, and submit it by the deadline. We make this request especially to the foray leaders, who have promised to write pre- and post-foray articles and have not delivered. Remember, it is the responsibility of each foray leader to write both articles. The articles don't have to be long, but we're both sure that our club members would love to hear what to expect and what actually happened on each foray. The club will thank you!

2006 DUES NEWS

In order to keep NJMA's finances in good shape, the Executive Committee voted, at its annual meeting in January, to increase the annual dues rates. We have not had a dues increase since 1977 (Yep, you read that right that's 28 years without an increase. Gasoline was 75 cents a gallon back then!) Major costs like postage, room rental, and speaker's fees have gone up significantly in that same time period. Also we have expanded our program offerings quite a bit.

Individual dues will now be \$15.00 per year, Family dues \$20.00 per year, and a Life membership will be \$300.00.

We are able to keep our dues reasonable because so many members volunteer to work to bring about our many and varied activities. We sincerely hope this rate change will not deter you from renewing your membership in *New Jersey Monthly's 2004 Best Club in NJ*. Even at the new rate, membership in NJMA is still quite the bargain!

– submitted by Bob Peabody, Treasurer

SIGN UP FOR THE BEGINNERS' MICROSCOPY CLASS SATURDAY, OCTOBER 8

The Microscopy for Beginners class, originally scheduled for March 12, has been rescheduled for Saturday, October 8, 10:00 am to 3:00 pm. in Foran Hall, Cook College, Rutgers. It will be led by Glenn Freeman with the assistance of Gene Varney and other experienced members of NJMA. Glenn will show you how to use the microscope to see microscopic characters needed to confirm your "picture" identification of a mushroom.

You are encouraged to bring fresh collections that you would like to identify. Ray Fatto's book collection is available for your use in the classroom.

Use the registration form below to reserve your spot now. The cost is a very reasonable \$10.00 per person and it's filling up fast, so act quickly if you wish to attend, Bring lunch (coffee and tea will be provided).

BEGINNERS' MICROSCOPY WORKSHOP OCTOBER 8, 2005 REGISTRATION FORM

Please fill out this form, enclose a check for \$10 per person, made payable to "NJMA", and mail to Jim Barg, 220 Millbrook Road, Hardwick, NJ 07825-9658.

NAME: _____

ADDRESS: _____

TELEPHONE: _____

EMAIL: _____

NUMBER
ATTENDING: _____

AMOUNT
ENCLOSED: _____

The workshop will be held at Cook College (Rutgers University), Foran Hall (off Route US 1) in New Brunswick at 10:00 am. See the March-April issue of the NJMA News for directions.

FUNGUS FEST IS SEPTEMBER 25!

Don't forget to come out and support
our annual public outreach

(see flyer on inside back page for details)

Volunteers should contact Glenn Boyd at
(973) 746-5817

or email him at

pannia@comcast.net

We can also use your help with set up
at 1:00 pm on Saturday, September 24

Rhoda Roper is coordinating a
pot luck dinner for workers who
sign up to help before the event.

GRETE TURCHICK FORAY & PICNIC STOKES STATE FOREST SEPTEMBER 18

The annual fall picnic and foray at Stokes State Forest, named in honor of one of our honored senior members, is the northernmost location of all of our foray sites and has always been one of NJMA's most popular events. The collecting, in a beautiful mixed forest of conifers and hardwoods with at least two streams running through it, is usually very productive. Boletes, *Cortinarius*, *Hydnum*, and many examples of polypores are generally found, the quantity of which depends on the weather, of course.

Whether or not great numbers of fungi are found, there is always plenty to eat. The picnic at Stokes was the first of NJMA's potluck events, which are among our best-attended functions. Be sure to prepare and bring along any dish you'd like...our members are quite a bunch of culinary gurus, and this event gives all of them a chance to shine. Any dish that you bring should have a card attached with your name and a list of all ingredients.

Please bring your own dinnerware and beverages. There is a pavilion at the site, so the picnic will happen, rain or shine!

Old-timers already know what a great event this foray/picnic is. Newcomers, prepare to have your eyes opened and to have your tastebuds aroused!

– submitted by Jim Richards

CULINARY GROUP: NOVEMBER 12 SOUP SUPPER

On Saturday, November 12th, the NJMA Culinary Group is planning a return to a very popular dinner theme. Several times in the past we have had Soup Suppers which were always very popular. Since we have not had one in a long while, and since every response to an email asking for suggestions for the theme of the next dinner listed Soups as either the first or second choice, we felt that it was a good time to revisit an old favorite.

We will have appetizers to begin with, then an array of soups and breads, and then we'll finish with desserts.

If you have any favorite soup recipes that you would like to share with the group, now is the time!

The NJMA Culinary Group meets several times a year to enjoy good food and great company. These are not potluck events, but are based on planned menus. The cost of ingredients is split equally by the participants. Diners should bring their own dinnerware, utensils, beverages (except coffee and tea, which are supplied), as well as whatever is needed to serve their prepared dish(es). Attendance is limited to 30 people.

To register for the dinner or for more information please contact John Horvath (732-249-4257) (email johnterryh@worldnet.att.com) or Jim Richards (908-852-1674) (email jimrich17@netzero.com).

GREEK PICNIC A SUCCESS

On Saturday, August 20th, about 18 members and guests gathered at the home of John and Terry Horvath in Somerset to enjoy an afternoon and evening of sitting on the patio, swimming in the pool, and having a great meal. We began with a selection of *mezes*, the Greek small plates: olives, fresh vegetables from Jim Barg's garden, and various kinds of *pitas* and Cheese Bread, all of which were enjoyed with two different *feta* cheese dips (one with lemon and basil, the other with yogurt and cracked pepper), an olive relish, and *tsatsiki*, the very garlicky yogurt dip.

We then had refreshing bowls of Chilled Seven Spice Yogurt soup with spinach and tomatoes.

Next came great platters of Cold Mussels with Sherry Sauce, followed by Mushroom Pies made with *phyllo*, grilled Lamb and Pork Patties with a Spicy Yogurt Sauce and Chopped Tomatoes, a mountain of Grilled Marinated Shrimp, and Eggs with a Tomato Stuffing. All dishes were devoured along with more *pitas* and the remaining dips and veggies.

The meal finished with melon, baked figs, and a Cheese and Honey Pie.

– Jim Richards

An abstract by Jim Trappe

TREES, TRUFFLES AND BEASTS: HOW FORESTS FUNCTION

Most trees that dominate the world's temperate and subpolar forests in both Northern and Southern hemispheres rely on a mutualistic symbiosis with fungi. These fungi colonize the trees' feeder roots to form a dual organ termed a *mycorrhiza* (from Greek, = "fungus-root"). The fungi acquire nutrients and water from the soil and provide them to the tree, which in turn provides energy in the form of sugars to the fungi. Most of the larger mushrooms that fruit from the forest floor are the fruiting bodies of mycorrhizal fungi. Truffles, too, form mycorrhizae. They depend on being eaten for their spore dispersal. Most forest mammals and many insects eat truffles, flying squirrels being a good example. The animals digest most of the truffle except the spores, which are later defecated and enter the soil to potentially form new colonies. The tree needs the fungus, the truffle needs the tree and the squirrels, the squirrel eats the truffles and needs the trees. Meanwhile, spotted owls rely strongly on flying squirrels as prey, so yet another interaction is added to this mix. The truffles of the northeastern USA are little studied. Without doubt, the region contains many more species than are presently known from there.

Jim Trappe will be joining us on our Brendan Byrne State Forest foray on November 5, and will be speaking at our first meeting at SCEEC on November 6. He is Professor of Forest Science at Oregon State University. For 40 years, he has specialized on taxonomy and ecology of truffles around the world. In the course of this he has described three new families, 27 new genera and subgenera, and 125 new species. Currently he is working on taxonomy of the truffles of Australia, which he reckons contains 1,500 of the world's estimated 4,500 species. Jim is past-president of the Mycological Society of America.

MYCO-F.Y.I.

A valuable web link on poisonous mushrooms:

<http://www.cfsan.fda.gov/~mow/chap40.html>

The FDA Bad Bug Book – Mushroom Toxins





REPORT ON PEEC WEEKEND 2005

by Rhoda Roper

On the weekend of June 24-26, our club held its annual weekend at the Pocono Environmental Education Center near Dingmans Falls, PA. Although June is not the best month for finding many varieties of mushrooms, PEEC weekend is for those of us who eagerly sign up year after year, the ideal time to meet and spend time with our fellow fungal enthusiasts. This year was no exception. Those of us who had worked on the Rutgers Creek survey were already there, and the rest arrived by dinnertime. In the evening, we had wonderful strawberry shortcake baked by Nina Burghardt which was covered in freshly whipped cream. The program for the evening, after an introduction to PEEC by one of the staff, was a summary of the Rutgers Creek Survey for the Paul F. Brandwein Institute given by yours truly. This survey is now in its sixth year and the Raymond Fatto Herbarium, which we are stocking with our finds, now has well over 400 specimens.

The main feature of the evening was a talk and demonstration by Jim Barg of the possibilities to digitally improve and alter photographs using Adobe Photoshop Elements 3, a program that is not terribly expensive. So many of us now have digital cameras and are looking to explore these possibilities, which incidentally are also available to 35mm camera owners who can scan in their photos.

Saturday morning, there was a choice of forays: one to the falls at Indian Ladders and one to Toms Creek. There was, alas, little in the way of fleshy mushrooms but one can always find something if one looks closely enough.

After lunch, Dorothy Smullen showed slides of stinkhorns, which had been taken over the years by long-time member Neal MacDonald. Those who still felt energetic went on the Fossil Trail walk led by Dorothy. The evening program was a fascinating talk by John Dighton who is the Director of the Pinelands Field Station and author of *Fungi in Ecosystem Processes*. His talk was about the major role that fungi play in the health of our environment. It seems that, in addition to making nutrients available to trees and plants and aiding in decomposition, fungi are also able to collect and store pollutants such as radioactivity, which they are monitoring at Chernobyl. (This seems to pose some risk in eating eastern European dried mushrooms). The evening concluded with our traditional and very lively wine and cheese party.

On Sunday, some of us rose early for the PEEC-led bird walk. Slug-a-beds like me were able to go on a nature walk after breakfast with Bill Olsen who is an extremely knowledgeable naturalist and a member of our club. We cleaned up and had our lunch and went our ways having had another great PEEC weekend.

NAMA 2005 WISCONSIN FORAY: DRY, BUT STILL WORTH IT

by Nina Burghardt

In July, NJMA was represented at the NAMA (North American Mycological Association) Foray by some of our talented members. Ursula Pohl produced some delicious mushroom platters for everyone to taste, Ania and Glenn Boyd pored over field guides and microscopes late into the night, Rhoda Roper displayed her expertise on the dance floor, and Benjamin Burghardt found fungi where no one else could find them.

Wisconsin was incredibly dry, so most of the fungi were a half inch in diameter or were growing on wood. Acomycete expert Roz Lowen was in her element, while the russula and amanita people sat around taking it easy. The advantage of attending NAMA forays is that you get exposure to fungi that you might not otherwise see where you live.

There was an informative talk by Walt Sundberg (Illinois) about using the hand lens and helpful hints in identification. There was a summation of the Oregon chanterelle study by Judy Roger of Oregon (cut, don't pull!) and Britt Bunyard of Wisconsin) told us about the bugs and fungi. Those were just the workshops my husband John and I attended.

The Mississippi River is very beautiful at La Crosse, with sandstone cliffs and lumpy hills. Tom Volk worked very hard, as did his students. Only a great teacher could get so much respect and work from his students. Thank you, Tom. I hope to see everyone at next year's NAMA foray in Alberta, Canada.



PHOTO BY RHODA ROPER

Consulting the Audubon Field Guide at NAMA 2005

MY FIRST NEMF

by Terri Layton

It was miserably hot and humid, and there was a promise of more of the same when I set out to Mont Alto, PA for NEMF's 11th annual Samuel Ristich Foray and my first NEMF. My thought was that there wouldn't be any mushrooms worth picking with this horrible weather, but I tried to keep an open mind not knowing what to expect from such an event.

As I approached the registration desk Thursday night around 9 PM, after a 3+ hour ride from my work in Hopewell, NJ, I was greeted by Cheryl and John Dawson who handed me keys, a handbook and a goody bag. My first question was if they had any spare room in the air conditioned dorm, but they kind of looked at me with sad eyes and shook their heads. Obviously, none was available. This was my own fault for not registering early and decided to persevere. After all, I've lived the first twenty years of my life without air conditioners, and didn't seem to have had terrible consequences in my personality, although my husband might disagree when I have a bad hair day.

Anyway, I was heading toward my car to drive a short distance to my **non-air-conditioned** dorm and offered a ride to a relatively young guy who looked pretty ordinary at first glance, but when I looked closer (my eyesight is going like the rest of me), he looked more like a punk rock star than a typical mycologist. I will tell you more about this person later. Anyhow, I dropped off the star and noticed that a cool breeze was blowing and the temperature was actually pleasant. At that moment, I thought it wasn't going to be bad after all, and I was giving myself kudos for saving money by not staying in the air-conditioned dorm.

WELL, that was short-lived as I climbed to second floor of the dorm and opened the door to my room. I was greeted by a blast of HOT stifling air and my room-mate, who was practically naked. The room had no cross-ventilation, and worst of all, it faced due west and had plenty of chance to get nice and HOT all afternoon! Needless to say, I signed up for every air-conditioned event regardless of the subject, and took countless cold showers ... I shudder to think how much water I used.

After a hearty breakfast on Friday, about twenty of us boarded a school bus for the short ride to Lone Pine Run Reservoir for one of a dozen forays available that morning. As predicted, there were not many mushrooms at first glance. Jack Barnett, our past president (Jack and Mary Anne stopped by on their way to new home in Kentucky) showed me what to look for and where to look. I was actually glad that we only collected few specimens and had time to look at each closely. I admit I have a tendency to collect whatever I find as if there will be a prize for quantity (and there is no such prize). I was told later that about three hundred species were collected over the weekend, including about twenty new species despite the adverse conditions.

After the morning foray and lunch (of course – after my cold shower), I opted to stay for papermaking workshop (you guessed it – air conditioned lab!) instead of going for another foray. No surprise there. Overall, there were so many interesting workshops and lectures to fit every level, including beginners like myself. There were also interesting evening lectures, social programs, and awards (NJMA certainly got our share, including members Bob Peabody and Benjamin Burghardt).

One of the most memorable lectures for me was one given by the punk rock star, who turned out to be none other than Dr. Tom Volk from Wisconsin. He did a wonderful slide presentation on “Shrooms in da 'Hood”. the presentation started out with “The good”, “The bad”, and “The not-so-attractive”. It was funny, informative, and easy to understand. I thought even non-mycologists would like his presentation. Tom also did a separate slide presentation (attributed to one of his students), a take-off on the song “Aquarius” by the group *The Fifth Dimension*. You know, the song that goes:

*When the moon is in the Seventh House
and Jupiter aligns with Mars.....
This is the dawning of the age of Aquarius,
the age of Aquarius, Aquarius! Aquarius!*

The word ‘Aquarius’ was dubbed with “Age of *Lactarius*” (a common gilled mushroom genus which exudes latex/milk when cut) and many of the lyrics were changed to fit *Lactarius* characteristics. Included was a picture of a small kitten with milk smeared whiskers asking “GOT MILK?” Who says mycologists have no sense of humor? The only bad thing about it was the song played in my head for days (and we all know what that's like!)

There were several interesting lectures by Drs. Roy Watling and Bart Buyck, but I have to admit most of them were way above my head. It was, nevertheless, entertaining, since both of them interjected humor and enthusiasm.

I was amazed at what seemed like unlimited talents in our NJMA group, and members from other groups agreed. Funny how it takes outsiders to point out the treasures we have. I had an opportunity to see our members in action with NEMF: Dorothy Smullen (NEMF president) and Glenn Boyd (NEMF VP/chairperson), Susan Hopkins, Gene Yetter, Glenn Freeman, Bob Hosh, and others too numerous to mention, did excellent jobs.

What I walked away with from the weekend at Mont Alto was a little more knowledge of mushrooms, how much I don't know, how many enthusiasts there are, that some mushroomers look like punk rock stars, and how much expertise there is in NEMF. But most of all, I feel privileged to be part of NJMA and I am looking forward to learning about fungi and associating with the very talented, intelligent and modest people who care about the planet on which we live.

P.S. – And I lived through the HEAT. I am told that this was the hottest NEMF in history. Oh Joy!

RUTGERS CREEK FUNGI STUDY

by Dorothy Smullen

In 2000, Jack Padalino (former PEEC director) asked Ray Fatto to assess some property of Mary Brandwein in Greenville, NY, in order to begin a fungal biodiversity study for the Paul F. Brandwein Institute.

Ray was shown very rocky terrain filled with poison ivy. Thinking “no”, Ray later changed his mind...and thus, several NJMA members have been gathering specimens each month from June through October ever since.



PHOTO BY DOROTHY SMULLEN

Frank Addotta and Rhoda Roper ready to foray at Rutgers Creek.

Collecting usually begins on Thursday afternoon at the Institute, which does have interesting woodland and fields. We stop at 4:00, visit with Mary Brandwein for a while, and enjoy cold drinks and fruit salad. Later in the evening and the next morning, back at PEEC, we work on the identification of specimens using keys and microscopes.



PHOTO BY DOROTHY SMULLEN

Gene Varney, Gene Yetter, and Aaron Norarevian in 2004

Each new species is dried and later added to the Ray Fatto Herbarium at the Institute. There are now close to 500 species in the herbarium. It is a great learning experience for all involved.

The last two months were dry but, surprisingly, 15 new species were recorded. One was found by Sang Park, and was no bigger than a few millimeters. It was a specimen of *Coryceps variabilis* and the dried host – a wire-worm, was identified by Gene Varney. Other regulars throughout the years have been Rhoda Roper, Gene Yetter, Frank Addotta, Aaron Norarevian, Bob Peabody, and Dorothy Smullen. Many more have helped out occasionally when they can spare the time. It is a very enjoyable experience.



PHOTO BY RHODA ROPER

Dorothy Smullen hits the books!

HOW CUTE CAN YOU (OR SHOULD YOU) GET?

LIFE magazine now is included as an insert in the weekend (Friday) editions of both *The Denver Post* and *The Rocky Mountain News*. In the June 10, 2005 issue, the Food section is entitled, “Cute Cakes for Any Taste”, and gives instructions for making especially tempting cupcakes. Guess what tops the list? Did you guess a mushroom cupcake? And need I tell you which mushroom? Right! That most colorful of ‘shrooms, *Amanita muscaria* – red frosting with white mint spots. Guess I’m just a worry wart to think this might give a child the idea that the real mushroom might be just as yummy as the cupcake version. But then I have a right to be concerned. I’m the one who gets the calls when this happens.

– Marilyn Shaw, Toxicology Chair
Colorado Mycological Society (reprinted from *Spores Afield*)

BOLETES AND MYCORRHIZAE

A small part of a talk by Walt Sturgeon to the Mycological Society of Toronto

by John Sparling (reprinted from *Mycelium*, the newsletter of the Mycological Society of Toronto, July-September 2005)

After Walt Sturgeon's talk at the Mycological Society of Toronto's Annual General Meeting in April, we were left, as usual, with many things to think about. Several members came up to me and asked about the woolly aphids, waving their appendages (actually secretions of wax), and asked if I had seen them, and what they had to do with the Ash-Tree Bolete? They are quite common feeding on ash, and there are related species feeding off maples and even pine. The close relationship between the ash tree and the ash tree bolete raises the question of why some boletes are found in mixed forests, seemingly under many different trees, while others appear to be confined to a single host tree like the larch or one species of pine.

The boletes are, with the *Amanitas*, *Russulas*, and *Lactarius*, important mycorrhizal species, and we are often tempted to assume that if the species is found under one particular tree then there is a mycorrhizal association. More frequently, these fungi form ectomycorrhizal associations with several tree species. A sheath of fungal hyphae surrounds the young root, and penetrates slightly into the root itself. The fungus, in most cases, enhances water and nutrient supply to the tree and receives sugars and other nutrients from the tree roots. The health and growth of many trees, shrubs and herbs is frequently dependent on this close mycorrhizal relationship.

However, several may not be mycorrhizal, and may not be even closely related to trees. Walt showed us *Boletus parasiticus* that is parasitic on the Earthball or *Scleroderma*, and not mycorrhizal. Walt could have shown us the very tasty King Bolete, *Boletus edulis*, that is mycorrhizal, fruiting under conifers and mixed hardwoods, or the Bitter Bolete, *Tylopilus felleus* that is similarly found widely and under many trees, but certainly not edible!

He showed us examples of species which were host-specific: the Hollow-stemmed Bolete, *Suillus cavipes*, fruits under tamarack, as of course does the Larch Bolete, *Fuscoboletinus paluster*, and both are good examples of fungi mostly growing under one tree species. They are also good edibles. The Slippery Jill, *Suillus salmonicolor* (edible but a bit slimy) occurs under conifers, especially white pine. Also, on our forays, we commonly find, again under white pine, the White Pine Bolete, *Suillus americanus*. So, why are some boletes so choosy and others very broad in their associations? Also, if we find a bolete always under one kind of tree, can we assume they are host-specific and mycorrhizal to that one species? As Walt showed us, clearly not!

The situation with the Ash-tree Bolete, *Boletinellus*

(*Gyrodon merulioides*), is a fascinating story: Walt indicated that it is confined largely to ash trees, but not mycorrhizal. Its occurrence under ash instead is more complex, and involves a close relationship with woolly aphids. The woolly ash aphid, *Prociphilus fraxinifolii*, feeds extensively on second growth ash tree roots, but during spring proceeds to feed by tapping into the sugar flow in the softer foliage, often causing wilting and shriveling of the leaves. For most of the time, only the females are present. They reproduce (or rather replicate) rapidly and asexually (by parthenogenesis). Later in the fall, winged females and males are produced. The females lay eggs in the bark, and the cycle continues next spring. The hyphae of the Ash-Tree Bolete, either growing in the soil or the base of the fruiting body, produce abundant black sclerotia, each about 2–5 mm across. They are all formed close to or attached to the young ash roots. Walt showed us a great slide of these, and within each one there were several aphids feeding on the roots of the ash within these sclerotia. It appears that the aphids extract sugars from the ash tree, and as honeydew secretion, pass the sugar to the fungus. Thus, the aphid supplies nutrition to the fungus in return for shelter and possibly protection from predators. In addition, it is possible that because the sclerotia are below ground, the aphids may be able to survive the winter and survive year round. Interesting too, in having a "friendly" fungus to absorb the honeydew that would otherwise encourage bacterial growth within the sclerotia. Such bacterial growth could cause decay and possibly harm to the aphids. Wonderful, and there may be an advantage to the tree, but this has not been discovered. The fungus is not mycorrhizal.

There are certainly more interesting stories about the relationship between fungi and their hosts to explore. Why are some boletes found on only one species, but others on several or many species? Are there other fungi dependent on an animal similar to the woolly ash aphid?

Thanks Walt for the stimulating talk and discussion.



Gyrodon merulioides, the Ash-Tree Bolete, viewed from below.

PHOTO BY MICHAEL KUO



Mushroom Pie with Onions, Mint, and Paprika from Nymphalo

(Manitaropita apo to Nymphaio)

adapted by Jim Richards from The Glorious Foods of Greece by Diane Kochilas (Harper Collins 2001)

2 tablespoons unsalted butter

2 large onions, coarsely chopped

1½ pounds portabello mushrooms, brushed clean, coarsely chopped

Salt and pepper to taste

1/3 cup chopped fresh mint

½ pound of phyllo

Olive oil for brushing phyllo

1. Heat the butter in a large skillet, and cook the onions over medium-low heat, stirring, until softened, about 10 minutes. Add the paprika and stir to mix. Add the mushrooms, season with salt and pepper and cook over medium high heat for about 8 to 10 minutes, or until most of the liquid has evaporated. Remove from the heat and stir in the mint. Let the filling cool slightly. (The filling can be made several days ahead and refrigerated.)

2. Preheat the oven to 375° F. Lightly oil a 14-inch round pizza or baking pan. Lay one sheet of phyllo in the pan letting the edges hang over. Brush lightly with olive oil. Place a second sheet at right angles to the first. Lightly brush with oil. Lay a third sheet diagonally across the first two. Lightly brush with oil and add a fourth sheet of phyllo at right angles to the third. Continue with two more sheets of phyllo, placing at angles to the previous sheet.

3. Spread the filling evenly over the phyllo and cover with the remaining sheets of phyllo – angling them and brushing with oil between layers. Roll in the edges to form a crust and brush the outside of the pie with oil.

4. Bake until the pastry is golden – about 30 to 35 minutes. Remove from the oven, let cool in the pan, and serve.

NOTE: You may substitute any meaty mushroom for the portabello. In the original recipe, the author states that the locals use the local mushrooms – preferring portabellos – which is interesting, in that portabellos do not grow in the wild. Other herbs may, of course, be substituted for the mint.

Makes 4 to 6 servings.

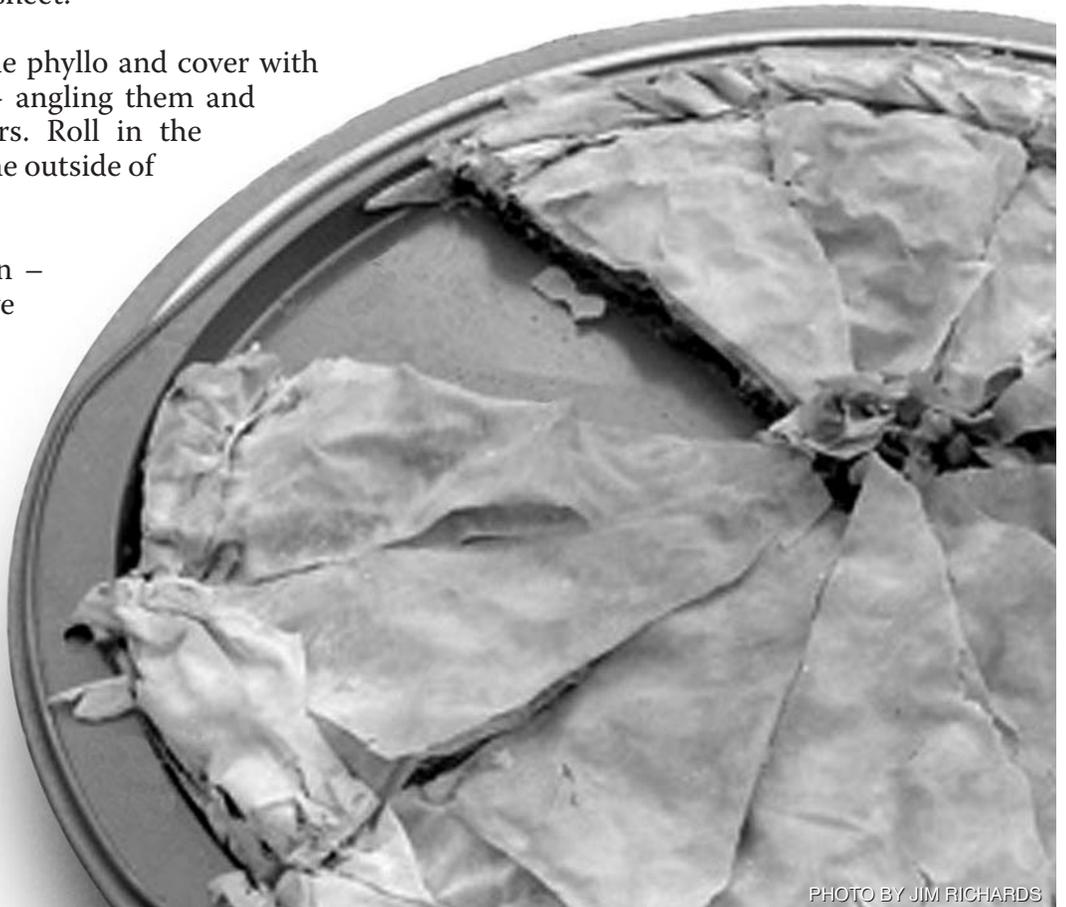


PHOTO BY JIM RICHARDS

NJMA PHOTO CONTEST

Regulations

Slides and Digital Images Accepted

Contest Deadline: All entries are due by our **November meeting date**.

All photos will be displayed at our December Holiday Party.

Contest Categories: Technical, Pictorial, and Activity/Judge's Option

For each of these categories, there will be both a 35mm slide and a digital camera section, as well as two divisions: one for novice and one for advanced (which includes semi-professionals and those entrants that have won first place three times in the last five years.) Call 908-647-5740 for further clarification. There will be 12 first place winners, one from each of the each following categories:

NOVICE	ADVANCED
35mm Slide – Technical	35mm Slide – Technical
35mm Slide – Pictorial	35mm Slide – Pictorial
35mm Slide – Activity/Judge's Option	35mm Slide – Activity/Judge's Option
Digital Image – Technical	Digital Image – Technical
Digital Image – Pictorial	Digital Image – Pictorial
Digital Image – Activity/Judge's Option	Digital Image – Activity/Judge's Option

Contest Rules:

The contest is open to all NJMA members. 35mm slide entries are limited to a total of 15 for each contestant. Please mark each slide with a projection dot at the lower left corner of the mount when viewed right-side-up out of the projector. Label each slide on the dot side with your initials, category initial (**T**, **P** or **J**) and slide number (for example, **JD-ST-1**. In this case, this code stands for **John Doe**, Slide, Technical, number **1**).

Digital images are limited to five entries per person per category. Submit on a CD-ROM or floppy disk. Digital images should be kept at their original resolution. If the photo has been manipulated, original file must also be included (cropping is not considered manipulation). The preferred file format is TIFF (.tif), but JPEG (.jpg) files will be accepted.

For slides, be sure to include a page with your name, address, e-mail and phone and a listing of your entries with title and category.

For digital images, list as above and include a file name under each image that includes the first three letters of your last name (*not* your initials).

All entries may be used for publication in our newsletter or be duplicated for our slide library and future digital library.

Winners will be announced at our Holiday Meeting. Slides will be shown in the traditional way. Digital images will also be projected.

Mail or deliver slides or images to:

Dorothy Smullen
141 River Road
Millington, NJ 07946



new jersey mycological association

FUNGUS FEST

**Sunday, September 25,
11 AM to 4 PM**

2005

**Suggested donation
Adults \$2 Under 16 \$1**

Come learn about mushrooms!

Join in guided walks ~ Bring mushrooms to be identified ~ Watch live cooking demonstrations ~ Attend slide shows and lectures ~ Learn how to cultivate mushrooms ~ Speak to experts on dyeing and papermaking with mushrooms ~ Books and fascinating arts and crafts for sale ~ Bring the kids- we have a children's corner

**SOMERSET COUNTY PARK COMMISSION ENVIRONMENTAL EDUCATION CENTER
LORD STIRLING ROAD, BASKING RIDGE, NJ**

For information or directions call (908) 766-2489 or www.njmyco.org

NJMA NEWS

c/o Susan Hopkins

P.O. Box 291

Oldwick, New Jersey 08858

FIRST CLASS MAIL

In this issue:

- **FUNGUS FEST!**
- **MUSHROOM PIE**
- **NEMF FORAY REPORT**
- **GRETE TURCHICK PICNIC**
- **PRESIDENT'S MESSAGE**
- **NAMA FORAY**
- **RUTGERS CREEK STUDY**
- **SOUP SUPPER**
- **NJMA PHOTO CONTEST**
- **TREES, TRUFFLES, & BEASTS**

...plus much more!

Omphalotus illudens
a.k.a. *Omphalotus olearius*
The Jack-O-Lantern Mushroom



- Bright orange when young, turning brownish in age
- **POISONOUS** – often mistaken for Chanterelle
- Has true sharp-edged gills (as opposed to blunt ridges)
- Grows in clusters on wood, stumps, or buried wood
- Many specimens' gills glow dull green in the dark!

PHOTO BY SUSAN HOPKINS