



NJMA NEWS

THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION
Volume 36-4 July - August 2006



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CALENDAR OF UPCOMING EVENTS

- | | |
|--|--|
| Sunday, July 9
10:00 am | FORAY: Manasquan Reservoir <i>Leader: Rod Tulloss. A microscope session will follow this foray.</i> |
| Sunday, July 16
10:00 am | FORAY: Meadow Woods Park
<i>Leader: Dorothy Smullen</i> |
| Saturday, July 22
10:00 am | FORAY: Hoffman Park
<i>Leader: Bob Hosh</i> |
| Saturday, July 29
10:00 am | FORAY: Wells Mills Park
<i>Leader: Nina Burghardt</i> |
| Sunday, August 6
10:00 am | FORAY: Rancocas Audubon Nature Center
<i>Leader: Sang Park. A microscope session will follow.</i> |
| Saturday, August 12
2:00 pm | Culinary Group Pan-Asian Barbeque
<i>at the Horvath's in Somerset. For information or to sign up, contact John at 732-249-4257 (johnterryh@verizon.net) or Jim Richards at 908-852-1674 (jimrich17@netzero.com)</i> |
| Sunday, August 13
10:00 am | FORAY: Schiff Nature Preserve
<i>Leader: Susan Hopkins</i> |
| August 17-20 | NAMA Foray, Hinton Training Centre
<i>(near Jasper National Park) Hinton, Alberta, Canada</i>
For information, visit the NAMA Web site:
http://www.namyco.org/events/index.html |
| August 25-27 | COMA Rogerson Foray |
| Sunday, August 27
10:00 am | FORAY: Stephens State Park
<i>Leader: Jim Richards</i> |
| September 1-4 | NEMF Foray, Saint Anthony's Hermitage, Lac-Bouchette, Canada <i>See pages 10 & 11 for details.</i> |
| Saturday, September 2
10:00 am | FORAY: Herrontown Woods
<i>Leader: Bob Hosh</i> |
| Sunday, September 10
10:00 am | FORAY: Washington Crossing State Park
<i>Leader: Glenn Freeman</i> |
| Sunday, October 8
10:00 am – 4:00 pm | FUNGUS FEST 2006
Frelinghuysen Arboretum, Morristown |

Directions to the Frelinghuysen Arboretum, Morristown

Traveling from the South: I-287 Northbound to Exit 36A (Morris Ave.). Proceed East approx. 1/2 mile in the center lane, past Washington Headquarters (on left). Take left fork onto Whippany Road. Turn left at 2nd traffic light onto East Hanover Avenue. Proceed for about 1/4 mile. Entrance is on left, opposite the Morris County Library.

Traveling from the North: I-287 Southbound to Exit 36, following signs for Ridgedale Avenue (bear right in exit ramp). Proceed to traffic light, then turn right onto Ridgedale Avenue. At 2nd traffic light, turn right onto East Hanover Avenue. Proceed for about 1/4 mile. The Arboretum entrance is on the right just past the traffic light at the Morris County Library.

Traveling on New Route 24: New 24 West to Exit 1A, (also labeled as Rt. 511 South, Morristown) onto Whippany Road. Stay in right lane. Turn right at 1st traffic light onto East Hanover Avenue. Proceed for about 1/4 mile. Entrance is on left, opposite the Morris County Library.

MARK YOUR CALENDAR!

**FUNGUS
FEST
STRATEGY
SESSION**

**SATURDAY
AUGUST 19
10:00 AM**

AT THE
FRELINGHUYSEN
ARBORETUM

**ALL VOLUNTEERS ARE
ASKED TO ATTEND**



PRESIDENT'S MESSAGE

I devote this issue's President's Message to putting out a few reminders about environmental and property etiquette that we, as walkers of the woods, must never forget. I was moved to write these reminders when I recently met a park ranger at a Boy Scout camp in North Jersey who had nothing but bad things to say about mushroomers and their (in his words: "destructive") relationship with the environment. While I was defensive of the members of NJMA, some of the points raised by this ranger set off alarms as I mentally pictured people running rampant through certain areas, destroying vegetation and disrupting the forest understory and fragile cryptobiotic soils (soil crusts which are amalgams of fungi, algae, lichens, and bacteria). To be honest, I have never seen a member of our club doing any of this, as I know that we are all fine environmental stewards. We realize that the abundance of fungi can be affected by our actions, and it's in our own interest to make sure that the woods remain pristine habitat for the fungi that we seek and study.

I realize that many of us became involved with NJMA because of our love of nature, so I know that I'm preaching to the choir here. In the same breath, though, I'll say that I'm writing this more to pre-empt destructive activity than to complain of a problem. However, hearing the vitriol from the mouth of this ranger convinced me that there must be some out there who care more about retrieving "that" mushroom – no matter what the cost to the surrounding environment. And, while he is only one voice, the thought that someone perceives us as "destroyers" troubles me. Maybe he was talking about commercial collectors, or maybe he was talking about experiences he had while being a ranger at forests in other parts of the country where commercial mushrooming has become a problem. Whatever the case, we need to remember to be respectful of all aspects of the woods and avoid the temptation to cut vegetation or stomp "willy-nilly" on areas of virgin living soils.

Another issue which is subject to debate is that of over-collecting. Many park rangers tell us that collecting too many mushrooms in any given spot will destroy mushroom growth in that spot. While I'm not an expert on the subject (and most park rangers certainly are not), there is evidence to support both sides of the argument. To give the benefit of the doubt, it's best that we use our own judgement when it comes to collecting in the same spots year after year, and when possible, leave a few specimens for spawn if we feel it'll help. We should also respect whatever regulations are in place in any given area. Whether mushrooms disappear as a result of over-collecting or depletion of nutrients in the substrate is not something to argue with a park ranger. If there truly are laws regulating the picking of mushrooms in the East (there is some debate on this between rangers in

Delaware Water Gap National Recreation Area, for example. Some rangers claim that there is a limit on how much one may collect there, others seem to either ignore it or feel it's not an issue), then we must respect them, regardless of how we may feel about the scientific validity of those regulations. In any case, it's important to note that commercial collecting is prohibited on most public lands. If collecting in a state park, it will not be unusual for a ranger to stop you and inspect your collection. Excessive amounts may be construed as commercial collecting, and could subject you to legal action.

And, if an area is marked as a "natural area" or "nature preserve", we must avoid collecting in those areas without specific permission to do so. (Some of our organized NJMA forays are in nature preserves, but do remember that we have permission to be there, and we're there on the condition that we respect the natural environs of those areas.)

"Tread lightly" is more than just two words that state and national parks love to throw around at visitors...it's the rule we should all live by when we are out observing, photographing, and collecting fungi.

While more of a legal and liability issue than an environmental issue, the same holds true for private property. If a piece of land is surrounded by "No Trespassing" signs, we should not be collecting or roaming in those areas without the landowner's permission. Many of us have been guilty of "grabbing" a mushroom from the edges of someone's private land, while others of us (myself included) have unknowingly stumbled onto private land and been the subject of property-owner ire. I've heard stories of some who have been more daring, actually roaming unannounced in privately-owned woods. No! No! Tempting as it may be to grab that big fat *Agaricus arvensis* from someone's lawn, those signs were posted for a reason, and it's no fun getting caught. No mushroom is worth a stern lecture or possible legal action!

Remember, we are the stewards of our own futures as mushroomers. It's our responsibility (and in our own interests) to make sure that we don't make life hard for our forest-dwelling brethren: plants, fungi, and animals. It's just as important that we don't make a bad name for ourselves by trespassing in nature preserves or private property, or by flaunting the laws of the county, state, and federal parklands.

– Jim Barg

*Footnote: See the article from the Puget Sound Mycological Society's newsletter **Spore Prints** (on page 9) for an example of regulations which are imposed on mushroomers in Washington State Parks. While mushrooming is not nearly as popular here as it is in the Pacific Northwest, we must remember that, should we not pay respect to the forest environment, similar regulations and restrictions could be imposed on us. The article contains a good set of guidelines which can be used by environmentally-friendly mushroomers everywhere.*

A FEW SUMMER MUSHROOMS

by Ania Boyd

What comes to mind? To me, summer months are the realm of chanterelles of all kinds (all edible), and you should be able to find some on almost every foray. The yellow ones are so conspicuous, usually in troops. The real thrill, though, is to find the black chanterelles – almost comparable to the excitement of discovering a morel patch. It is so hard to find the first one, because they blend with the ground so well. Only after that first pattern recognition, you realize you are standing in the whole field of them, since they do grow in gregarious groups.

Cantharellus cibarius (Phillips p.214, Barron p.250) Cap yellow to orange, up to 15cm, smooth with a wavy margin; gills-thick crossveined ridges concolorous with the cap, descending stalk. Often pleasant, fruity smell. In NJ usually on hardwood slopes, especially with beech.

Cantharellus cinnabarinus (Phillips p.215, Barron p.250) Smaller, less fleshy and more brittle reddish-pink sister of *cibarius*. Found often in moss, on stream banks.

Cantharellus lateritius (Phillips p.215) Like *cibarius*, but fertile surface (one usually with gills) almost smooth.

Cantharellus minor (Phillips p.215, Barron p.251) Even smaller (usually <1"), orange chanterelle, waxy and much more fragile than *cibarius*. Found often in moss.

Craterellus fallax (Barron p.190) Gray to black, vase (funnel) shaped mushroom. When young often has a "bloom" (looking like velvety powder), spore print salmon-colored. Hard to confuse with anything else. I usually find it on slopes, but maybe just because it is so much easier to spot there.

If the weather cooperates in July and August (read: we get enough rain) the picker is rewarded with the first flush of Boletes (fleshy fungi with pores underneath the cap - Lincoff, p.21). One of the characteristics of true Boletes is that the tubes can be easily pulled away from context (flesh).

Boletus bicolor (Phillips p.222, Barron p.163) rose-red cap with tiny, yellow pores underneath, very short tubes also yellow. All parts of the mushroom may bruise slowly blue. This excellent edible may be confused with poisonous *Boletus sensibilis* (Phillips p.235), which bruises (**instantly!**) blue.

Boletus pallidus (Phillips p.222, Barron p.162) Creamy-buff to light brown cap with bloom. Pores whitish to pale yellow, not bruising. Deposit olive-brown. Flesh dirty-white. Stem pallid, but often flushed red at the base. Found often in groups under oaks.

Boletus badius (Phillips p.222, Barron p.164) Another common Bolete of summer. Cap beautiful chocolate milk brown with some reddish tints, sticky when wet. Pores small, yellow w/olive tinge, bruising first blue to brown. Stem of similar color as cap, sometimes rosier, w/bloom when young, relatively long. Mixed woods,

often on decaying wood.

Gyroporus castaneus (Phillips p.237) dry, chestnut color cap with white, small pores, yellowing with age; stalk of the same color as cap, hollow with age. One usually eats just the cap. Quite common, but very susceptible to a yellow parasite, which grows on Boletes: *Hypomyces chrysospermus* (Phillips p.313). It takes over the Chestnut Bolete as its host.

Tylopileus alboater (Phillips p.242) velvety, dry, dark brown to black cap with white (young) to pink (mature) pores; stalk gray to black; all parts bruising black (also when cooked turns black). Nevertheless very good.

Gyrodon merulioides (Phillips p.237, Barron p.177) Ash Bolete - brown cap with wavy margin; its tubes do not separate from flesh, are very short, and pores look more like crossveined gills, usually descending on the stalk. Found under ashes, it has a relationship w/aphids, which live on ash roots.

And *Amanitas* abound: (Phillips pp.14-29, Barron pp.235-241) *A. flavoconia*, *A. rubescens*, *A. brunnescens*, *A. vaginata*. Meadow Woods often has *Amanita cokeri* showing up, and in Rancocas we find *Amanita onusta*. Both of those belong to the *Lepidella* group (for group and species characteristics refer to your *Amanita Cheat sheet* from last newsletter).

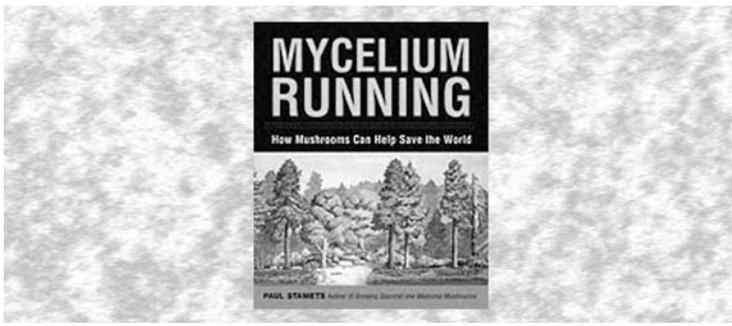
FUNGUS FEST 2006 NEEDS YOU!

On Sunday, October 8th, NJMA will be staging its 28th annual Fungus Fest, and it looks like it could be the biggest one ever. The new venue for the event is the Frelinghuysen Arboretum in Morristown, which is well known for staging many botanical events and educational programs (and one of the sites of our winter meetings). It is very convenient to Routes 287 and 24. The facilities are great, with events and displays on two floors of the Haggerty Education Center, which is right next to the beautiful display gardens. The guided mini-forays will take place in the woods nearby.

Because of the expected increase in visitors to Fungus Fest, your help is needed more than ever. For this to be a truly successful event, there will need to be a big turnout of volunteers to help in all areas, from greeting visitors to leading mini-forays.

A knowledge of mushrooms is not even required for many of the jobs. All you need is simply a willingness to help and to let the visitors know what a great organization NJMA is (and that should be an easy one!) Just a couple of hours of your time is all we're looking for, although more would not be turned down.

Please contact John Horvath, the Fungus Fest Committee Chairman, to let him know that you are willing to do your share. He can be reached at 732-249-4257, or you can email him at johnterryh@verizon.net.



BOOK REVIEW

MYCELIUM RUNNING

BY PAUL STAMETS

reviewed by Nina Burghardt

Mycelium Running is a very large book covering many topics. It uses non-technical language and has lots of illustrations and charts. “Running” probably refers to the fact that mycelia have to constantly move as they use up resources. The subtitle, “How Mushrooms Can Save the World” seems a little presumptuous.

The book is divided into three parts: “The Mycelial Mind”, “Mycorestoration”, and “Growing Mycelia and Mushrooms”. The first part covers general information about fungi with a heavy sprinkling of philosophy.

The second part is more interesting. It has chapters on mycofiltration, mycoforestry, mycoremediation, and mycopesticides. Mycofiltration refers to the use of fungi to clean contaminated water such as that found in septic systems and feed lots. Mycoforestry shows how vital fungi are to a healthy forest. Mr. Stamets faults the forestry industry for ignoring this. Fungi allow trees to grow stronger and healthy as well as to build forest floors. Fungi also help suppress forest fires by rotting dead branches and trapping moisture.

Mycoremediation is about the use of fungi for cleaning up toxic waste by taking advantage of their ability to absorb heavy metals and nuclear waste. (This bioaccumulation ability is the reason why people should be very careful where they gather their wild mushrooms.) Mycopesticides use fungi to get rid of harmful insects.

The last part instructs the reader about how to grow fungi in the garden and why they are good for you and your garden. There is a very informative description of Mr. Stamets’ favorite mushrooms.

So where can you go for your mushroom spawn? Why, Fungi Perfecti, of course! Fungi Perfecti is Mr. Stamets’ own firm.

Although the content of this book is interesting, it seemed a little wordy and repetitive. I also found the lack of footnotes documenting his many scientific assertions to be disconcerting.

If you have never read anything by Mr. Stamets, you will find this book most interesting.



EDITOR’S MESSAGE

Every two months, there comes a time that I feel that I have to sit down at the computer and put a few thoughts together about this newsletter that you are reading. I am constantly hoping to have something new to talk about, rather than simply asking for more contributions of articles and photos (original art would be nice from time to time, as well) or to thank those of you who contribute on a regular basis.

We are fortunate in having so much original material from NJMA members that there is usually no room for outside material, but for this issue, we finally have the space available to run some articles from newsletters of clubs around the country (and to catch up on a couple of articles that had been sent in for the last newsletter that we did not have space for.) We exchange newsletters with about two dozen mycological organizations around the U.S. and Canada, and there is just too much good stuff that we will never have space for in *NJMAnews*. At one time, we had a list of members that we circulated these outside newsletters to so they could catch up on the articles that we are unable to print, and, to suggest articles that might be worth reprinting in our newsletter. (I simply do not have the time to read them all.) I would like to reinstate this newsletter exchange. If you are interested in participating, please email me at jimrich17@netzero.com.

With all the rain we are having, this should be a great collecting summer. I will expect you to send us all kinds of articles and photos, especially since our next issue will be the one that we give to visitors at Fungus Fest. We’d like to make it even better than usual, so get your submissions in by August 10!

– Jim Richards



Gyroporus castaneus

GARLIC MUSTARD, A COMMON WILD PLANT, IS APPARENT ANTI-MYCORRHIZAL AGENT

by Gene Yetter

Undoubtedly all members of the New Jersey Mycological Association have seen the recorded presentation about morel mushrooms by our deceased friend and mentor, Ray Fatto. What a clever production it is, with Ray narrating a script giving practical information on morel hunting. The script is synchronized with a set of slide pictures of habitats, plants, and mushrooms. There is even background music – the Spring portion of Vivaldi's Four Seasons. The program is shown every year at the club's annual "Fungus Fest" public event.

At one point in his narrative, Ray remarks, "Spikes of garlic mustard are flowering." A new slide flashes: it is the image of a cluster of a tall, slender plants featuring small cruciate (cross-shaped) white flowers, of the botanical name *Alliaria petiolata* (Bieb.) Cavara and Grande, a member of the mustard family, the Brassicaceae. The plant, common in the Northeast, is sun-loving, growing in disturbed open areas. Along with a few other indicators of morel season, its flowering is a sign that the time is right to go a-hunting!

Is garlic mustard, then, a benign member of habitats where mushrooms grow? Apparently not, according to joint research by a number of scientists from several institutions, confirming that this plant actually interferes with normal mycorrhizal relationships between fungi and their symbiotic hosts. The conclusion is indicated in a study entitled, "Invasive plant suppresses the growth of native tree seedlings by disrupting belowground mutualisms" by K.A. Stinson, S.A. Campbell, J.R. Powell, B.E. Wolfe, R.M. Callaway, and others (2006).

The new understanding post-dates Ray Fatto's program on morels by many years. I'm sure Ray would have been surprised!

Importance of mycorrhizal symbionts

A large category of fungi have mutual dependencies with trees and other vascular species, fungi getting energy from the host, and plants absorbing moisture and nutrients through interaction with the fungi. The health of many habitats is correlated with the richness of its mycorrhizal associations.

A botanical invader to North America from Europe, garlic mustard is now reported as common in 30 states and Canada. It is considered to have medicinal and culinary uses. Member Frank Addota told me he collects it to add to salads. He's probably not the only one.

While wild garlic mustard prefers sunny, open areas, it is also believed to have the potential for changing the

species profile of forests where it occurs.

Specifically, Stinson *et al.* found that seedlings of sugar maple, red maple, and white ash grow less well in soil populated by garlic mustard than in soil populated by native American plant species. Among other things, researchers observed that arbuscular mycorrhizal fungi (AMF) were lacking in soils populated by garlic mustard. And in the lab, extracts of garlic mustard reduced germination of spores and interfered with the colonization of cultivated tomato roots.

The two-page study report states, "In the North American forests it has recently invaded, the plant inhibits the growth of understory plants, including the seedlings of canopy trees." The report can be accessed at www.plosbiology.org (May 2006, Vol. 4, Issue 5, e173). Phytochemicals suspected of inhibiting mycorrhizal fungi are not identified.

NJMA members respond

NJMA's Dr. Gene Varney, suggests "Toxins are certainly a good possibility. [The garlic mustard] also crowd out other plants by their sheer density. When they are flowering, the ground is solid green with astronomical numbers of tiny seedlings waiting for a chance to flower the next year. Pulling flowering plants before seeds mature would prevent a new crop. But I wonder how many years it would take before there would no longer be any seeds left to germinate. Some of the younger members of NJMA are unlikely to live long enough!"

Dr. Varney added that garlic mustard and another invasive species have become established at Rutgers' Hutcheson Memorial Forest near New Brunswick. "Stilt grass is another horrible pest, if not worse than garlic mustard," Dr. Varney wrote in an e-mail. "Perhaps it, too, produces inhibitors in addition to the smothering dense growth. It has taken over some of the best mushrooming areas in Hutcheson. Unfortunately, deer eat everything except garlic mustard and stilt grass, and perhaps a few prickly bushes such as barberry."

When word of the new finding circulated recently, NJMA members Dorothy Smullen and Rod Tulloss were quick to react. Dorothy said she would be going to work in her yard "pulling loads of garlic mustard before it goes to seed."

Rod wrote: "My [*Amanita*] 'babies' form ectomycorrhizal symbiosis (encase root hairs with a membrane and send threads in amongst the root cells, but not into them); but they're fungi and might be killed by garlic mustard. Come to think of it, I've never seen a mushroom in a patch of garlic mustard. Those garlicky SOB's! Let's all start pulling them out!"

Rod had additional criticism for garlic mustard. "I've always hated the stuff since I learned that it confuses native butterflies into laying their eggs on it, and then

poisons their caterpillars,” he said. “At least one species is in danger of extinction in the U.S. because of this.”

Although the garlic mustard study did not look into effects on the fruiting of fungi such as Amanitas or morels, there may emerge some controversy on that issue. Dennis Aita of the New York Mycological Society commented that he has collected morels in garlic mustard patches, but he vowed to look to confirm his impression.

(As of this writing, my own recollection is that I have found morels at the fringe of garlic mustard spots, but I think there is a threshold beyond which morels do not grow. It will be interesting to hear what others have to say. - G.Y.)



TIM BARONI DOUBLE FEATURE

by D. Smullen

On March 5, NJMA members were treated to two lectures (if they got to our Arboretum meeting place by 11:30 am) Tim Baroni of SUNY Cortland pleased everyone with the topics of his lectures.

The morning lecture, and accompanying PowerPoint presentation, appealed especially to the identifiers of the club. Tim’s morning subject was the Entolomataceae family (He’s one of four experts in the world.) This family is very large, with over 1,800 species. The general diagnostic characters are a “flesh-pinkish” spore deposit, attached gills, angular spores (at least in polar view), and spore walls that are cyanophilic (staining with cotton blue and lactic acid). Tim went through many of the nineteen genera, showing the common characteristics and species for the north-eastern U.S. (species which are not often imaged in our field guides.) And, he presented us with one interesting note to settle some confusion: It’s a fact! *Entoloma abortivum* is the attacker of Armillaria.

Tim’s second talk, at the regular afternoon meeting, explored the “Biodiversity of Neotropical Macrofungi – A Glimpse Into the Adventures of a Mycologist”. Tim and twelve other scientists spent at least nine days “roughing it” on a 60-million year-old plateau and mountain top in Belize, where a landing field for the helicopter had to be cleared first. We were treated not only to the images of diverse fungi, but to photos and stories of the wildlife of the neotropics as well. Iguanas, coqui-frogs, jaguar footprints, howler monkeys, boas, leaf-cutter ants, army ants, crocodiles, and a fer-de-lance were encountered. Tim stated that the percentage of new species has definitely increased in the last 50 years. As Tim says, “you gotta go if you’re going to find new taxa”.



WHAT YOU CAN DO FOR OUR FORESTS

(or: a recipe for Garlic Mustard Pesto)

*(from Spores Illustrated, the newsletter of COMA,
the Connecticut-Westchester Mycological Association)*

4 cloves of garlic

3 tbsp. garlic mustard taproots

3/4 cup parsley

1 cup garlic mustard leaves

1 cup basil leaves

1½ cups low sodium olives

2 cups walnuts or pine nuts

1/2 cup mellow miso

Olive oil as needed

1. Chop the garlic and garlic mustard roots in a food processor.
2. Add the parsley, garlic, garlic mustard, and basil and chop.
3. Add the nuts and chop coarsely.
4. Add the olive oil and miso and process until you have created a coarse paste.

(Makes 2 cups)

For this and more recipes using garlic mustard, see www.wildmanstevebrill.com

JULY FORAY SITES

by Nina Burghardt

New Jersey has many marvelous county parks. We are going to visit three of them in July. All forays start at 10:00 am.

We have collected at Manasquan Reservoir, in Monmouth County, for several years. The park has wetlands and an upland habitat with sandy soil. Most of the trees are hardwoods. We will be holding a microscope session in the Environmental Center after the foray. This building is air conditioned and very comfortable with lots of exhibits and a viewing area to watch the waterfowl on the 770 acre lake. Fishing and boating are allowed in the reservoir. Rod Tulloss will be leading this foray Sunday July 9. This will be a great time to pick his brain about a wide range of subjects.

On Saturday, July 22, we will be visiting a Hunterdon County Park, Hoffman Park. This was the farm of the Hoffman family, who made their money in soda pop, the most familiar being Orange Crush. There are some large fields, hardwood forests, and over 25 ponds of various sizes. Manny's Pond is the biggest, with bass (catch and release) and sunfish. Hoffman Park is known for its grassland birds: bobolinks, meadowlarks, bluebirds and various types of sparrows. Bob Hosh will be the foray leader.

On July 29 (Saturday), we will be going to a new (for us) county park, Wells Mills. This park is in Ocean County and is a real gem. It is as if you took all the habitats in the Pine Barrens and rolled them into one park. There are persimmons, butternut hickory, red mulberry, and some beautiful stands of large Atlantic White Cedar. There are many types of carnivorous plants and lots of mosses. You can rent a canoe to paddle around the lake. Bring your binoculars to check out the many birds that may be found there. Last year, Jane Bourquin and I walked through this park to 'scout it out' and we found all sorts of fungi. Nice bathrooms and an environmental center are part of the attractions of this facility. I will be leading this walk.

NJMA CULINARY GROUP TO HOLD A PAN-ASIAN BBQ SATURDAY, AUGUST 12, 2:00 PM

The NJMA Culinary Group will, as per tradition, hold an outdoor feast for their summer get-together. For this year's festivities, Terry and John Horvath have again extended an invitation to have the BBQ poolside at their home in Somerset. (It seems they did not get enough of us at last year's Greek-fest!)

With a theme as general as Pan-Asian, we are left with a great range of choices, from Indonesian Sates to Turkish Kebabs. Any kind of grilled street foods along with salads and bread may appear. The exact menu will depend on the number of guests that are coming and the "adventuresomeness" (if there is such a word) of the menu planners.

Please do remember that culinary group events have *planned* menus and are not potluck events. Shortly after you register to attend, you will be assigned a recipe to prepare and you will be told the number of people who will be attending. To maintain integrity and "flavor" of the menu, we request that you not stray from your assigned recipe without the express consent of the menu planners (Jim Richards and John Horvath).

To register for this tasty (and we should add, fun!) culinary event, please contact John Horvath at 732-249-4257 (johnterryh@verizon.net) or Jim Richards at 908-852-1674 (jimrich17@netzero.com) **before August 5.**

EXPLOSIVE-EATING FUNGUS

by Barry Fox, *Newscientist.com*, 21 February 2006, via *The Sporeprint*, Los Angeles Mycological Society, March 2006

Could a fungus counter the explosive power of dynamite? That's the idea behind a patent filed by Robert Riggs of Texas.

When explosives are used for mining or demolition, some may fail to detonate and get lost in the rubble. Riggs reckons the remedy could be to mix pellets of dormant fungal spores in with the explosive charge before inserting the wick into the explosive package. The dry spores lie dormant while the explosives are in storage and, if the charge detonates as intended, will get blown to smithereens. But if the explosive fails to detonate, water from the air should migrate down the wick and into the charge. The spores should then germinate and devour the charge, rendering it harmless.

The white-rot fungus *Phlebia radiata* is particularly fond of high explosives, according to the patent. And the speed at which it gobbles the stuff up depends on the number of pellets added: five pellets per stick for slow degradation or 30 to make it safe after just a few days.



UPDATE ON *AGARICUS BLAZEI* THE “ALMOND MUSHROOM”

Mycologia via *The Mycophile*, North American Mycological Association, July/August 2005

You may recall the “new” cultivated mushroom that burst onto the scene a few years ago. Known as the “almond mushroom,” “almond scented mushroom” and “almond *Agaricus*,” this mushroom has been heavily touted as the replacement for most varieties of commercial mushrooms. Besides its reported delectability (with a scent of almonds), this mushroom has generated a great deal of interest in its purported medicinal properties. Recently “discovered” and named *Agaricus blazei* (as well as *Agaricus brasiliensis*), this edible species was found in the deep dark recesses of the Brazilian rain forest. Or was it?

According to Dr. Richard Kerrigan of Sylvan Research (the world’s largest commercial producer of *Agaricus* spawn – spawn is the “seed” mushroom growers use to

inoculate compost for a mushroom crop), it ain’t so. In a paper published in the journal *Mycologia* (97: 12-24), *Agaricus blazei* is shown to be nothing more than *Agaricus subrufescens*, a commercially important species from days gone by.

Agaricus subrufescens was first described in 1893 by C. H. Peck. The species was widely cultivated and eaten in the Atlantic states from the late 1800s until the early 1900s. It was then replaced by the “button mushroom” *Agaricus bisporus*, which became the commercially preferred member of the genus until today. According to Dr. Kerrigan, *Agaricus subrufescens* still can be found growing in the wilds of northeastern North America, as well as in the West.

Dr. Kerrigan, a world authority on the genus *Agaricus*, previously has raised doubts over the identity of *Agaricus blazei/Agaricus brasiliensis*. In this latest paper, he relied on DNA sequence analysis, along with conventional morphological features, to state with absolute certainty the true identity of the almond mushroom.



RECIPE FILE

MUSHROOM SOUP (serves 9) (adapted by John Horvath, this recipe was served at the NJMA Culinary Group dinner on April 22.)

This hearty puree combines velvety fresh mushrooms with the concentrated intensity of dried ones. The result is a deeply flavored soup that’s ready to eat in under an hour. Clean the fresh mushrooms with a damp paper towel or scrape them clean with a paring knife. Choose mushrooms that are firm and moist but not soggy. They should be in good form, indicating that they’ve been carefully handled.

- 1 ounce dry mushrooms (porcini, morels, or shiitakes)**
- 1/2 cup olive oil**
- 2 sprigs of rosemary 4 sprigs of sage**
- 1 large yellow onion, peeled and thinly sliced**
- 3 garlic cloves, peeled and thinly sliced**
- 1 1/2 teaspoons salt**
- 1/4 teaspoon freshly ground white pepper**
- 1 pound white button mushrooms, cleaned and thinly sliced**
- 1 pound shiitake mushrooms, stemmed, cleaned, and thinly sliced**
- 6 cups homemade chicken stock or water**
- 1 cup heavy cream**
- 2 tablespoons unsalted butter**

Soak the dry mushrooms in 1 cup of warm water for 20 to 30 minutes, until plump. Strain the soaking liquid through a coffee filter to remove grit and reserve, along with the reconstituted mushrooms, until needed.

Heat the olive oil in a large pot over a medium flame. Bundle the rosemary and sage together and tie with kitchen twine. When the oil is hot, add the herb bundle and sizzle for a few minutes on both sides to infuse the oil.

Add the onion, garlic, salt, and pepper and cook for 5 minutes, until the onion is soft and translucent but not brown. Turn the flame to high and add the white mushrooms and shiitakes. Cook for 10 minutes, during which the mushrooms will give off their liquid (which should evaporate quickly due to the high heat) and deflate significantly. Stir occasionally.

Add the chicken stock and the reconstituted mushrooms along with the soaking water. Simmer for 30 minutes. Remove the herbs, then add the cream and butter. Puree the soup with an immersion blender until smooth. Return to the pot and keep at a very low simmer until ready to serve.

REQUIREMENTS FOR MUSHROOM COLLECTING IN WASHINGTON STATE PARKS

by Brian Luther

(from *Spore Prints*, the newsletter of the Puget Sound Mycological Society)

With regulation changes that went into effect in September 2005, we are now required to have an approved Scientific Collecting Permit at all Washington State Parks. Without this, we cannot have field trips to these locations and cannot legally collect fungi for the educational displays that are an essential part of all our field trips.

I just received confirmation from the State of Washington that renewal of my mushroom collecting permit, on behalf of PSMS, for Washington State Parks for 2006 has been approved. This authorizes us to collect for scientific, educational and culinary purposes this year in Flaming Geyser State Park and later in the year in fall at both Twanoh and Deception Pass State Parks.

Obtaining the permit is just the first step. All species collected must then be fully documented and a report submitted prior to the deadline set in the permit requirements. Several other things are also required.

In order to fulfill the requirements of these regulations, you (as the collector) must follow the following procedure regarding mushroom specimen collecting at Washington State Parks. I also need to talk about a recent problem that was brought to my attention by the park manager of Deception Pass State Park and is equally applicable to all Washington State Parks.

The detailed report that I have to submit to Washington State at the end of the mushroom season includes:

1. A list of all species found
2. Their frequency of collection (how abundant or rare)
3. Basic info on the area of the park and general habitat the fungus was collected in
4. Associated trees and shrubs (mycorrhizal, or nonmycorrhizal).

In order for me to satisfy all these requirements, I must ask that you all follow my collecting data guidelines in the future, as follows:

1. Collect only a small amount of the fungus. If there are several fruiting bodies, then bring in only a few, not everything you find. Leave some (edible or otherwise) for others. Never hoard.
2. All collections made need to have a small slip of paper briefly describing where in the park they were found, general habitat, and any associated trees. If you don't know the trees, no problem - just bring to me or include a small cone, small branchlet, or a leaf or two with the specimen. A brief comment like "under conifers on the upper trail" or "under hardwoods by the stream," or a specific tree, is needed. I am going to

request that a special order of small forms be printed specifically for this purpose. This is nothing new; it's just that most mycophiles are not aware that this field data is SOP for all scientific collecting by mycologists. It's time that we got into the habit of doing it consistently and my permit report requires this information.

Also, I recently received a message from Jack Hartt, the Manager (head ranger) of Deception Pass State Park, describing a problem that's a direct result of people collecting mushrooms in this beautiful place. Last November (2005), three organized mycological events took place at Deception Pass State Park within just a couple of weeks, and apparently the aftereffects were noticeable to the park management. Numerous unsightly holes were found all along pristine trails and high visibility areas where people had pulled up mushrooms, but never bothered to fill in the holes afterwards. For us to continue to have collecting privileges in Washington State Parks, we all must be diligent about treading lightly, or we may lose these privileges. As Identification Chair, this is what I am now requiring all of you to do, without fail, in the future when collecting in Washington State Parks, in addition to what I've mentioned above.

3. Do not use any form of a digging implement (trowel, shovel, etc.) for removing a specimen. If necessary, use a small stick that does not create a large, uniform pit where the mushroom was removed. A collecting or hunting knife is fine as this is not much different from using a stick on the ground and doesn't create an unnatural looking hole.

4. Fill in the hole. If you don't know the mushroom and need to collect the whole specimen, including some of the forest duff for a positive ID, then remove as little forest duff as possible and fill the hole in completely and stamp it down, so there is absolutely no indication that we've tampered with the environment. With some species, it is unavoidable that you need to dig down and collect the whole stem, and I understand that. If however, you already know the mushroom and don't need the whole specimen for us to give you a positive ID on it, then cut it off at the base to avoid pulling out forest duff whenever possible, but do so by cutting down into and well below the duff which will normally, but not always, ensure that you get the whole fruiting body.

5. Do not collect along paths or in any high visibility areas. Do your collecting away from scenic paths. This also needs to be SOP from now on. If something rare or highly unusual is spotted along a path, then collect it with utmost discretion following all of my above guidelines, but please avoid high traffic areas and trails at all cost. Use the paths as your conduits and then head into the woods for actual collecting, as far off the trails as possible. Even if off the beaten paths, deep in the woods, you must fill in any holes created by mushroom removal.

NEMF 2006 INFORMATION - REGISTER NOW AND ATTEND!

AMQ/NEMF 2006 - QUEBEC (Canada)

The 2006 Sam Ristich NEMF Foray will be held at Saint Anthony's Hermitage, in Lac-Bouchette, from Friday September 1st to Monday September 4th 2006. The meeting will be organized by the «Cercle des mycologues de Montréal» (CMM) and the «Société de mycologie d'Alma» (SMA). The foray will be a joint event with the annual meeting of the «Association de mycologie du Québec» (AMQ) -- this includes seven Quebec mycological associations.

Lac-Bouchette is in a very small locality a few miles from Lac Saint-Jean, a huge lake in Quebec's Blueberry Region. The principal natural formation here is the boreal forest, dominated by coniferous trees, mostly Balsam Fir and Black Spruce and occasionally White Spruce and in its southern part Tamarack and Jack Pine. Leafy trees are White Birch and Trembling Aspen. This environment is particularly favourable to mushrooms in the late summer. Fauna includes Moose, Black Bear, Wolf, Lynx, Beaver, Marten, Mink and Mountain Hare.

The Hermitage offers all facilities for such an event. The number of places is limited to 200 participants who will be lodged in Lac-Bouchette, either at the Hermitage or in one of 3 motels that are less than one mile away. All meals and activities will be in the Hermitage; forays will leave from and return to the Hermitage. There is also space for mobile homes.

So register soon.

The organization of the activities is based on the format that has been successfully used at Duchesnay for the NorthEast Mycological Federation foray in 1998 and for the NAMA foray held in Saint-Augustin-de-Desmaures in 2003. Participants will be offered a choice of many activities. Among other things, there will be bilingual excursions, conferences and workshops, in French or English or in both languages. Social activities will reflect once more the proverbial *joie de vivre* of the Quebec people.

Several mycologists have already confirmed their presence, with more to come:
From USA: Gary Lincoff, Walt Sturgeon, Bill Roody
From Canada: Yves Lamoureux, Yolande Dalpé, Réjean Gagnon, Mohamed Hijri
From France: Bart Buyck

Many experts from the CMM and other Quebec clubs will help in the determination of species collected at the Foray.

By car, the foray's site is approximately a 3 hours' drive north from Quebec. The longitude and latitude of Lac-Bouchette is 48.25 N; 72.18 W.

More information will be added on the CMM website, where a map and the registration forms will also be posted.

CMM phone: 514-872-7239
CMM e-mail: mycomtl@mycomontreal.qc.ca
CMM website: <http://www.mycomontreal.qc.ca>
NEMF website: <http://www.nemf.org/>

AMQ – NEMF – 2006
ANNUAL NEMF SAMUEL RISTICH FORAY
 Saint Anthony's Hermitage, Lac-Bouchette, Québec, Canada
 Friday 1st September to Monday 4th September 2006

Registration Form – USA residents

Registration deadline: August 1st 2006

Refund if cancelled before August 15: 80

Last name: _____ First name(s): _____

Last name: _____ First name: _____

Children (under 12), First names: _____

Address: _____

City: _____ State: _____ Zipcode: _____

Phone: _____ Club: _____

Email: _____

Do you need a room? Male/ Female? We assign

Registration Fees in US		Per person	Number of people	Total
Complete package Fri-Mon	Single occupancy	385		
	Double occupancy	300		
	Triple or quadruple occupancy	275		
	Child (in parent's room or your sleeping bag)	100		
Activities and meals only (Fri – Mon)		170		
Emplacement for a mobile home (Fri - Mon)		75		
Registration after August 1st, additional		35		

TOTAL on enclosed check: US _____

Make check payable to:
Cercle des Mycologues de Montréal
 Send to:
Cercle des Mycologues de Montréal
Jardin botanique de Montréal
4101, rue Sherbrooke Est
Montréal (Québec) Canada
H1X 2B2

More information at:
www.mycomontreal.qc.ca
 and
www.nemf.org/

By signing this document, I agree to hold harmless the CMM, the SMA and the NEMF, its administrators, officers and members in regard to any civil liability and/or any damage linked to any accident, injury, loss or sickness that could result from any activity or directions of the CMM, the SMA or the NEMF. I acknowledge that consumption of mushrooms may be hazardous to my health and/or the health of my family and I assume the sole responsibility thereof.

Date: _____

Signature(s): _____

NJMA NEWS

c/o Susan Hopkins

P.O. Box 291

Oldwick, New Jersey 08858

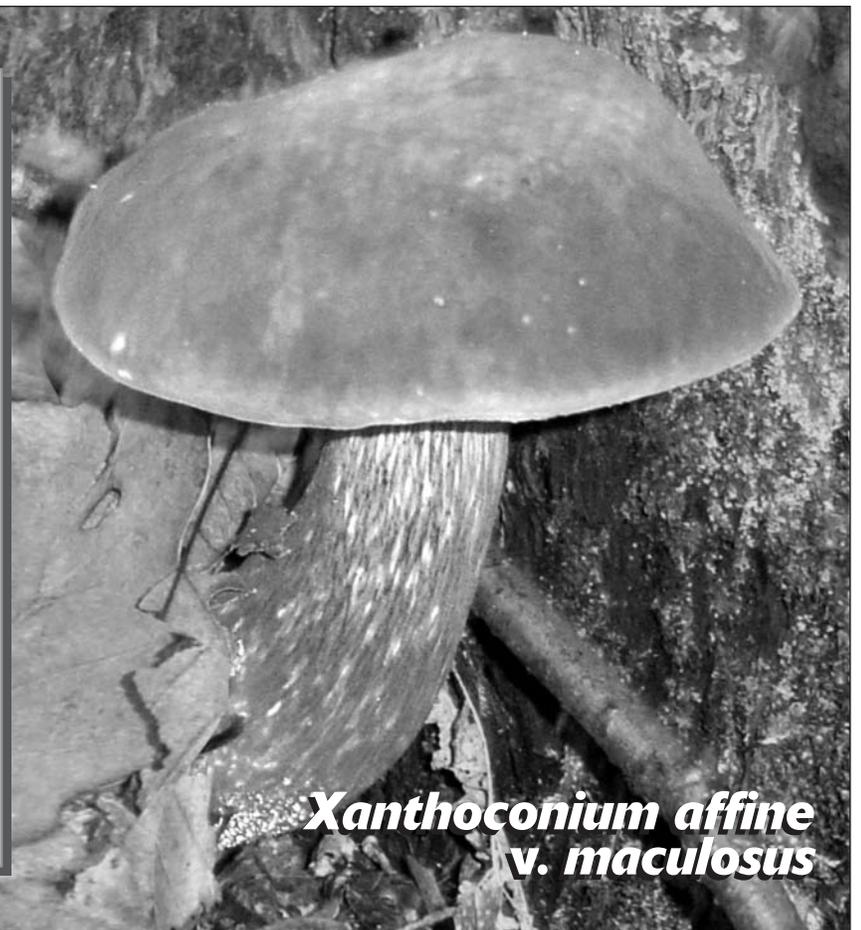
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...plus much more!



Xanthoconium affine
v. maculosus