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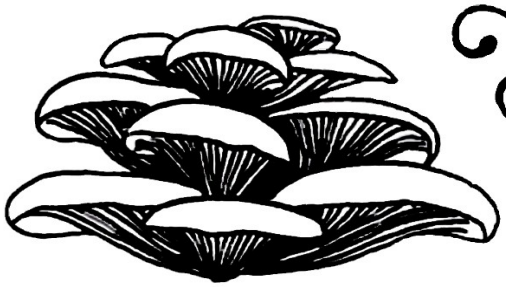

Spore Print

The Newsletter of the Connecticut Valley Mycological Society
Affiliate of the North American Mycological Association
Member Northeastern Mycological Federation

Membership: Dues per calendar year are $15 individual; $20 family (two or more persons at one address and requiring only one copy of club mailings). Lifetime memberships are $200 individual and $250 family. Make checks payable to CVMS and send to: CVMS/Karen Monger, 32A Perkins Ave., Norwich, CT 06360. CVMS members may also pay NAMA yearly membership dues by attaching a separate check for $24 (electronic) or $30 (hard copy) payable to NAMA.

The Spore Print newsletter is published quarterly in early Winter, Spring, Summer, and Fall. It is distributed to all members of the club in good standing, and on an exchange basis to the newsletter editors of other mushroom clubs. Submissions to this newsletter can be sent to the editor. If you would like to get your copy online, send your email address to: dinahwells@hotmail.com (put "Spore Print" in subject line or your email will be deleted).

CONTENTS

We welcome your submissions

The Spore Print "staff" would love to have your input! Photos, poems, articles, recipes or anything of interest to the members. The next deadline for submissions is July 1. Send a link to an interesting article or an email to: dinahwells@hotmail.com

COMING EVENTS

April 28, Sunday: First CVMS foray of the season, Osbornedale State Park, Derby 10 am Hunt fruitfully (or fruitlessly) for morel fruiting bodies!

May 31-June 1: White Memorial Conservation Center BioBlitz, Litchfield A 24 hour event starting Friday 3:30 pm that tallies every species inhabiting the study site. Study area surrounds the north end of Bantam Lake. Public activities Saturday 10-4. Info at www.whitememorialbioblitz.blogspot.com

June 9, Sunday: Wild Foods Foray, Day Pond State Park in Colchester This is a regular foray followed by potluck lunch featuring wild foods. See Food Event Guidelines in Member Handbook/Foray Schedule.

June 15-25: The Art and Science of Mycorenewal, Santa Cruz, CA Presented by the Amazon Mycorenewal Project
Topics we will explore:

-Fungal Biology
-Mycopermaculture
-Mycomimicry
-Mushroom Identification
-Mushroom cultivation methods
-Remediating toxins with fungi and bacteria
-Cleaning up oil spills in the Amazon

You can register online:
http://theartofmycorenewal.pandaform.com/pub/ukb8re/new

June 29, Saturday: CVMS Saturday foray, Bartlett Brook WMA, Lebanon First of 6 club forays on Saturdays.

July 26-27 West Virginia Mushroom Club Foray, Davis, WV To register, please email geezerex@aol.com. The foray fee per person is $35. Foray fees do not include meals or lodging.

Aug. 6-10: NEMF 2013, Samuel Ristich Foray, Rimouski, Quebec on the beautiful St. Lawrence River. Registration form on page 9, this issue.

Aug. 31 – Sept. 2: COMA Clark Rogerson Foray, Hebron CT

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Announcement from the Membership Secretary

"If you need a new name tag or a badge holder, see the Membership Secretary, Karen Monger, at any foray. You may also contact Karen at kraczewski@comcast.net or by calling 860-639-9385."

President's Message

Hello CVMSers,

After a much appreciated March Madness highlighted by Bill Neill's informative presentation with his terrific photos, and the astonishing and bountiful potluck buffet, this spring has stayed cool and drier than usual. As I write this letter on a needed rainy day, the forecast says it will be a little warmer -- good news for Connecticut mushroomers.

By this time last year we already had some early morel reports. Not so this year! However early spring Devil's Urns (*Urnula craterium)* have been reported. These inconspicuous but fascinating black cup ascos are found early in spring time. Their appearance often signals that the morels are coming soon.. The best thing is to go out and find some for yourself, but also keep an eye on the Yahoo Group for the first morel news along with other springtime foraging and even mixology conversations! click on http://tech.groups.yahoo.com/group/cvms/

Speaking of morels, what about all those new names? Significant new work was published online by Michael Kuo on April 12, 2012 replacing the familiar European names long used in field guides for North American species based on DNA evidence and careful study of recent morel collections. *Morchella esculenta* is now called *M. esculentoides*! To see all the new names along with a key to true morels and verpas, detailed descriptions and photos click on Michael Kuo's article at http://www.mushroomexpert.com/morchellaceae.html

To add to the morel names mayhem, a French mycologist, Philippe Klowez, published a new book on morels on April 16th -- just days after Michael Kuo. I've read that the Kuo and Klowez works have differences in naming and methods of morel classification. So it will be up to the scientific community to decide what new names become "accepted".

None of this means that our field guides are not useful. In fact, at CVMS forays we are likely to use the traditional names for the morels we find for some time simply because they are useful and match our historical lists. One thing for sure -- the morels will be the same and they do not care what anyone calls them!

MAKE PLANS FOR SPECIAL EVENTS Here are some of the highlight events for 2013:

37th ANNUAL NEMF Foray will be held in Rimouski, Quebec, August 6-10, 2013.
For details see http://mycomontreal.qc.ca/actualit.htm

35th COMA Clark Rogerson Foray will be in in Hebron CT, Aug 31 - Sep 2 2013.
For details see: http://comaforay.tumblr.com/registration

Eagle Hill in Maine, north of Acadia National Park is a great place for a week long study. Workshops include:
July 28 – Aug. 3: Greg Marley with Michaeline Mulvey teach Mushroom Identification for New Mycophiles
Sept. 8 - Sept. 14: Alan and Arlene Bessette lead a field seminar and workshop on Boletes of North America
Details on Eagle Hill and : http://www.eaglehill.us/programs/nhs/nhs-calendar.shtml

Hope to see you at the first foray -- April 28 at Osbornedale State Park in Derby starting at 10:00.
Happy foraying. Bill Bynum, President, CVMS

Real Art Ways talk in Hartford, March 16

(submitted by Karen Monger)

On March 16, we attended an Intimate Science Get Together at Real Art Ways in Hartford, featuring Phil Ross and our own myco-friend, **Connie Borodenko**. It was advertised as "A conversation on fungus as artistic medium and sustainable architectural material", and featured physical examples of the building bricks fashioned by Mr. Ross from the mycelium of reishi mushrooms, Ganoderma lucidum.

Connie was the opening speaker, talking about her family history of mushroom hunting and her own experiences with Connecticut Valley Mycological Society. She also helped answer questions from the audience about nutritional value and medicinal value of some of the fungi we find here in Connecticut. Connie also provided some samples of local conks, just about the only fungi we can find in the middle of March.

(At left: close-up of a brick, showing evidence of fruiting; most of the mushrooms are removed for a uniform brick.)

Philip Ross talked about his fabrication process with the mycelium of the medicinal reishi, and explained its connection to his previous background of working with critically ill AIDS patients in the 1980s. His interest in reishi as alternative medicine is what brought him to studying medical aspects of mushrooms, and eventually to home cultivation of mushrooms as food. He became interested in casting the mycelium from the growing fungi into architectural elements, controlling the organic growth and potential fruiting of the fungus with humidity, temperature, pressure, and light. He also discussed how the bricks and molded structures, if left "alive", can be coaxed to grow together with their own kind of organic glue, bridging gaps in structures and creating bonds between bricks.

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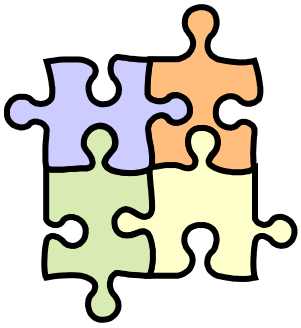
Mr. Ross presented many slides of his works, including small structures and furniture. Several examples of his molded bricks were on display, including a small arch and and some of the more artistic and organic pieces. He participated in a question and answer session after his presentation, and his patent for fungal bricks as sustainable, non-toxic building material was mentioned, however he was not willing to discuss potential partners in his endeavors to making the fungal blocks a commercial success. He was willing to share the facts that the bricks are excellent sound dampeners, and fire resistant as well as light weight. There is an excellent interview with Phil Ross over at Glasstire, an art blog, that I highly recommend, called The Future is Fungal. The interview goes into more depth about his inspirations and his own educational process, citing Paul Stamets as a source of information and his thoughts on the future of fungal education. *(At right: mycelial form allowed to "fruit organically")*

Many thanks to Connie for the invite out to the exhibition, it was also great to see other CVMS members in the audience to learn about the art of mushroom bricks.



Bits & Pieces

LOUPE de LOUPE by Terry Stoleson

Here we go loupe de loupe
Here we go loupe Oh! my!
Here we go loupe de loupe
On a Sunday to spy.

We're having a foray
Ev'rybody's havin' a great time
All the gang's here and a-huntin'
Yeah I'm shroomin' with a friend of mine. *(With apologies to Johnny Thunder)*

Spring is here and the forays are about to begin. Yeah! Are you ready? If you don't own a loupe, you're not quite. That's because you need either Superman vision, or a really good magnifier to clearly see the fine details of wild fungi. One of the best is a 10X jewellers' loupe, a wee tool that will help you greatly in identifying your finds and seeing what the experienced club members suggest you observe in your quest to become good at it.
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If you own one, you already know that. But if you are loupe-deprived, I challenge you to get one (only five bucks from our good CVMS sales gal, Cindy) and, at the first few forays, use it to examine the fascinating textures and other characters of some species on the collection table . For a starter, check out the tiny round pores and velvety texture of a Turkey tail polypore or the fine black hairs surrounding the tiny Eyelash cup. With any gilled mushrooms, observing wether the gills are forked, eroded, inter-veined or other will help your IDing. So will seeing if the surface of a cap or stem is granular, powdery, hirsute or scaly, etc. And when bolete season arrives, with this aid in hand, you'll be able to tell the size and shape of their pores, another important feature to help figure out exactly what mushroom you've collected. As with a lot of us "loupers", you'll end up looking closely at a lot of other things, like the lunar-like surface of a lichen, the furry fiddlehead of the Cinnamon fern, the fuzzy back of a spider or wings of a butterfly and the pollen on the stamens of a flower, etc, etc., and Wow!-ing

The great magic of a loupe is limited only by your time and desire to learn. You will be totally amazed by the awesome secrets Mother Nature reveals to you.

But, if for some strange reason, you "don't get it" and you can truthfully tell me that you didn't see or learn something that you didn't know before (without your nose growing three inches) I will personally take you on a walk and do my best to try to explain it to you.

At the very least, my friends, when you wear a loupe around your neck, it will give you credibility when you talk mycology to your friends and family.

Flying Salt Shakers of Death

[February 19, 2013: Reprinted with permission from the Cornell Mushroom Blog at http://blog.mycology.cornell.edu/ a blog by Kathy Hodges who writes the following introduction to a post about cicadas. The 17-year cicadas will emerge this year in New England. You won't be able to miss them!]

"Angie Macias wrote this post. She's a Cornell student who took my Mushrooms class in 2012, and we've been lucky to have her help at Cornell Plant Pathology Herbarium."

Writing poetry is my weak point. That's why I was excited but nervous to hear that my creative writing class had a ten-page poetry requirement. I considered my subject as I walked to work at the Herbarium that afternoon– the topic that came to my mind was dirt: I had just come from a soil science class. But something was missing… the poem had no life, literally. Writing a poem about sand particles wasn't cutting it.

That was when I thought of the cicada. Every summer at home in South Carolina, the evening air was alive with their calls. My black Labrador, Molly, loves to eat them, and she especially enjoys digging up their soil-dwelling nymphs. The cicadas I knew then were "annual" cicadas: an individual nymph takes 1-4 years to mature underground, but there is a hatch every year. The nymphs feed on the sap of tree roots, and somehow all those ready to hatch in a given year do so at nearly the same time.

That was about the extent of my knowledge of cicadas, so I did a little more research on their life cycles. As it turns out, the annual cicadas are not alone. Several other species—the periodical cicadas—have 13 or 17-year life cycles, emerging en masse in overwhelming numbers, presumably to reduce the impacts of predators. But one predator, the fungus *Massospora*, has evolved to wait with them for all those years.

The State Mycologist for New York, Charles Horton Peck, published the first official description of this fungus in 1879. "This is a peculiar genus," he was

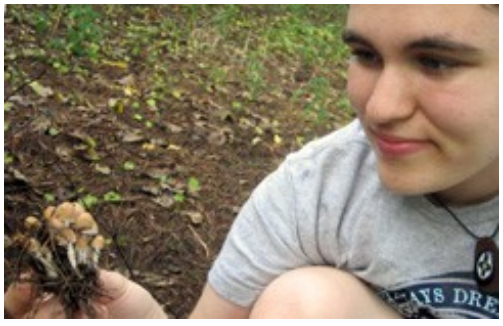
quick to point out. “In its early stage it is wholly concealed in the body of the insect, but just before, or soon after the death of the insect, the terminal rings of the abdomen fall away, revealing the pulverulent mass of spores within…” That’s right, this little white fungus eats the cicada alive until nothing is left in its abdomen but spores. Then it ruptures the tissues holding the abdomen together, breaking the end off, and thereby turning the still-alive-and-flying cicada into a salt shaker of death for others below.

How did this genus of fungi evolve? How did it learn to rest for years in the soil, and how does it know to emerge with the cicadas? I couldn’t find any answers. Very little research has been done on this fungus and its unwilling partners, so I set out to do my own. In the Cornell Plant Pathology Herbarium, I found twelve species of *Massospora* infecting sixteen species of cicada, from at least eight different countries scattered around the globe. One was found in Honduras in 1923, another in the US some years later, and then many more, in places like Colorado, Afghanistan, Argentina, and Australia. Based on this range of locations, I believe that *Massospora* can be found wherever cicadas are (which is pretty much everywhere). It may have evolved alongside the insects, with the cicada trying to outsmart the fungus by developing its lengthy life cycle. Then, the fungus may have followed suit, learning the signals the cicadas used to choose when to emerge. Or perhaps the cicadas developed their life cycle to fight off some other threat, like the muscoid flies that parasitize some species, and the fungus simply took advantage of the opportunity. No one is sure.

Richard Soper studied *Massospora* here at Cornell, completing his PhD in 1974 and moving on to a productive career with the USDA’s Agricultural Research Service. His exacting work sheds light on *Massospora* life cycles. He examined over 8000 underground nymphs of an annual cicada species, and found none infected. His work suggests cicada nymphs are first infected as they dig tunnels to the surface some days before emerging for their transformation into adults. This first group of cicadas, infected in their tunnels, will die during the time they’d normally mate, while producing spores than can directly infect other cicadas. But the second group of cicadas—those infected on the wing—will die filled with thick-walled resting spores. Resting spores are entrusted with the long wait in the soil til the next generation emerges, a year or perhaps 17 years down the road.

Lots of people hate cicadas for the racket they make in summertime, but we stand to learn a lot about biological clocks and environmental signaling from them and their fungal enemies. The fungus could bring economic benefits as well: cicadas cause significant damage to small trees with their egg-laying habits. Nearly all of the specimens I found in the herbarium were type specimens (the original one used to define a species), so I’m afraid that so far the scientific interest in them seems to be only in the naming.

When I go home this summer, I’m going to test the patience of my parents a little more by not only bringing the usual handfuls of mushrooms into the house, but handfuls of dead cicadas as well. I might get lucky and find one with a *Massospora* infection, and if I do, I’m going to study it well and send it back to Cornell for safekeeping. Maybe when I can get a really good look with a microscope, I’ll learn something new about this murderous little fungus to enliven my poem.



Angie Macias is a student worker at the Cornell Plant Pathology Herbarium. She’s worked on two of our NSF-funded projects: first, to digitize the voluminous fungal collection of George F. Atkinson, and lately, to photograph our type specimens (over 7000 of them!). She’s also a big fan of fungi and has a nice crop of oyster mushrooms growing in her room.

Mycophagy

*(Since most of us have not yet found any morels, the following recipe contributed by **Karen Monger** highlights black locust blossoms. There are lots more recipes and wild food information on Karen's blog, 3 Foragers at http://the3foragers.blogspot.com/)*

Karen writes, "For about only one week in mid-spring, the white flower clusters of black locust trees droop from the branches, making the entire tree appear white. Each flower in the cluster has a yellow spot on its top petal, and the flowers look like pea blossoms. They are crispy when picked, and can be refrigerated or even frozen for later use. They are most fragrant right before opening, or within a day or so. If the blossoms are browned or falling to the ground, it is too late to pick them.

The best way to eat the blossoms of black locusts is raw from the tree, and the taste of the raw flowers is sweet like fresh peas. Use them in a salad, or stir them into hot oatmeal. We remove the flowers from the brownish-green cluster stem and add them to pancakes and doughnut batter, or add them to an egg custard. Robert makes a sweet drink with the flowers steeped in water, honey, and lemon juice. Last year we made a peasant wine with the blossoms, and it is fantastic--floral, mostly dry, and wonderfully clarified. We have also made some black locust flower jelly and some flower-scented sugar. Robert also makes a black locust blossom syrup, which we mix with seltzer for a bubbly non-alcoholic cocktail. The blossoms attract lots of bees and ants, and the trees will seem to "hum" with activity as you walk past one in mid-spring.

The following recipe is based on a Hungarian recipe using acacia flowers. Look at the Latin name for Black Locust--Robinia pseudoacacia. It means false acacia. The flowers appear very similar between the two trees--arranged in clusters, fragrant, and edible."

Black Locust Custard
makes one 8-inch pie

2 large eggs
3 T fine corn meal
1 T polenta, or more corn meal
1 c. milk
1/2 c. heavy cream
3 T agave syrup, or honey
zest of one lemon
3 c. black locust flowers, green stems removed

1. Whisk the eggs with the cornmeal and polenta.
2. Add the agave or honey, milk, heavy cream, and lemon zest. Fold in the locust flowers.
3. Heat the oven to 300°F.
4. Butter and flour an 8 inch cake pan and pour the batter into the pan. Bake the custard for 45 minutes, until set and slightly browned on top.
5. When cool, top the custard with a jelly glaze and serve with sweetened whipped cream.

Morel-and-Asparagus Salad with Frisée and Butter Lettuce

(by Siegfried Danler from www.foodandwine.com) This light, simple salad highlights poached morels and asparagus with a combination of frisée and butter lettuces.

Ingredients:

1. 4 tablespoons unsalted butter
2. 3 dozen small fresh morels, rinsed, or dried morels—soaked in boiling water for 30 minutes, drained and rinsed
3. 1/2 cup chicken stock or low-sodium broth
4. 1 pound asparagus—tough ends discarded, asparagus halved lengthwise and cut into 2-inch lengths
5. Salt
6. Freshly ground pepper
7. 2 tablespoons extra-virgin olive oil
8. 1 tablespoon fresh lemon juice
9. 5 ounces frisée, torn into bite-size pieces
10. 1 medium head of butter lettuce, torn
11. 2 tablespoons small chervil sprigs
12. Argan oil, for drizzling (optional; see Note)

1. In a large skillet, melt the butter. Add the morels and stock, cover and cook over moderately high heat until softened, 5 minutes. Add the asparagus, cover and cook until crisp-tender, about 2 minutes. Season with salt and pepper and cook uncovered until the broth is nearly absorbed, 1 minute longer.
2. In a large bowl, whisk the olive oil with the lemon juice and season with salt and pepper. Add the frisée, butter lettuce and chervil and toss to coat. Arrange the morels and asparagus on plates and mound the salad alongside. Drizzle with argan oil, if using, and serve.

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COOKED by Michael Pollan *(release date April 23, 2013)*

The following excerpt from Amazon.com was sent in by Terry Stoleson. Thanks for alerting us to this interesting-looking new book, Terry!

"In Cooked, Michael Pollan explores the previously uncharted territory of his own kitchen. Here, he discovers the enduring power of the four classical elements—fire, water, air, and earth—to transform the stuff of nature into delicious things to eat and drink. Apprenticing himself to a succession of culinary masters, Pollan learns how to grill with fire, cook with liquid, bake bread, and ferment everything from cheese to beer. In the course of his journey, he discovers that the cook occupies a special place in the world, standing squarely between nature and culture. Both realms are transformed by cooking, and so, in the process, is the cook.

Each section of Cooked tracks Pollan's effort to master a single classic recipe using one of the four elements. A North Carolina barbecue pit master tutors him in the primal magic of fire; a Chez Panisse–trained cook schools him in the art of braising; a celebrated baker teaches him how air transforms grain and water into a fragrant loaf of bread; and finally, several mad-genius "fermentos" (a tribe that includes brewers, cheese makers, and all kinds of picklers) reveal how fungi and bacteria can perform the most amazing alchemies of all. The reader learns alongside Pollan, but the lessons move beyond the practical to become an investigation of how cooking involves us in a web of social and ecological relationships: with plants and animals, the soil, farmers, our history and culture, and, of course, the people our cooking nourishes and delights. Cooking, above all, connects us. "

NEMF – FQGM - 2013
UNIVERSITÉ DU QUÉBEC À RIMOUSKI
From August 6 or August 7 to August 10

14th annual foray of the FQGM (Fédération québécoise des groupes de mycologues)
37th annual foray of the NEMF (NorthEast Mycological Federation)
In collaboration with the Chaire de recherche sur la forêt habitée de l'UQAR[1]

Registration Form

Deadline for registration: August 1, 2013
80% refund if you cancel before July 15

Last name: _____ First name: _____
Last name: _____ First name: _____
Children (under 12) (Price on request) First name(s) : _____
Address: _____ City: _____
Province/State: _____ Postal/ZIP code: _____
Phone: _____ Club: _____
Email: _____
Name of preferred persons with which to share an apartment[2]: _____

I accept that my name be given to other persons registered in the foray. Yes ☐ No ☐

	Accommodation		Per person[3]	Number	Total
Foray **PLUS** August 6-10 **Complete package**	At UQAR, single occupancy only[2]		$380		
	At hotel[4]	Single occ.	$730	× 1	
		Double occ.	$480	× 2	
Package without room[5]	Only meals and activities		$230		
REGULAR foray August 7-10 **Complete package**	At UQAR, single occupancy only[2]		$300		
	At hotel[4]	Single occ.	$565	× 1	
		Double occ.	$375	× 2	
Package without room[5]	Only meals and activities		$190		

By signing this document, I agree to hold harmless the CMM, the SMA, the NEMF and the FQGM, 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, the NEMF and the FQGM. 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): _____

_____

Make check (US$ or CAN$) payable to:

Cercle des mycologues de Montréal
FQGM-NEMF 2013
31, rue Dinan
Laval QC H7N 2X8
Canada

For more information:
http://mycomontreal.qc.ca/

[1] Inhabited Forest Research Chair, University of Quebec in Rimouski (UQAR) (www.uqar.ca/english)
[2] On site, at UQAR, the accommodations available are apartments of four single rooms.
[3] Price per person includes all meals which will be taken on site, at the cafeteria of UQAR.
[4] L'Empress Hotel no more than 5 minutes by car from UQAR. [http://www.groupelenavigateur.com/empress-accueil]
[5] There is also the possibility of finding other hotels/motels at a good price in the Rimouski area.

Membership Secretary Karen Monger, husband Robert Gergulics, and daughter Gillian visited Hawaii in December and hunted for mushrooms there with Don Hemmes, co-author of Mushrooms of Hawaii. You can read Karen's report (with Hawaiian mushroom photos!) in the summer newsletter, due out around July 15.

Don Hemmes, Robert, Karen, and Gillian with her coconut

CVMS / Dinah Wells

FIRST CLASS MAIL