

NYMS

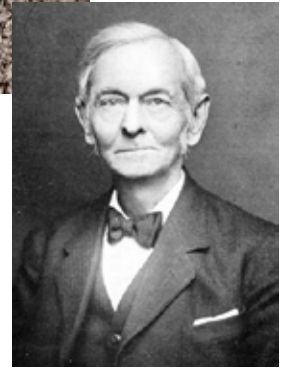


New York Mycological Society Newsletter

Spring 2019



clockwise from above: *Lactarius peckii* photo: Tom Bigelow; Gertrude Simmons Burlingham in an undated photo; Charles Horton Peck in an undated photo



FROM THE EDITOR

Our first lecture of the Emil Lang Lecture series this year was given by Else Vellinga. She advocates for an increased awareness in mushroom conservation, and in particular a conservation of fungal diversity. She trained as a mycologist in the Netherlands where data collection and analysis of fungal diversity is well funded and appreciated. The discrepancies between the conservation work being done there, as well as other European countries, and here in the United States, is starkly evident. One impediment, is that the requirements for submitting a species to the U.S. Fish and Wildlife Endangered Species List are not designed for mushrooms. The list contains two lichen and no fungi. Fungal diversity is not recognized as a crucial aspect of the earth's ecosystem. As citizen scientists, we have the capacity to command the attention of the scientific communities through our work in the field. Vellinga emphasized this in her lecture, and it really hit home. Therefore...

FROM THE PRESIDENT

New York State Mushroom Proposal

Lactarius peckii Burl., Mem. Torrey Bot. Club 14 (1): 76 (1908)

The importance of fungi within the well-being of ecosystems is not on the radar of federal and state governments. One of the founding principles of the New York Mycological Society is to raise public awareness of mushrooms. To that end, I propose that the New York Mycological Society nominate *Lactarius peckii* to be the official mushroom of New York State. Aside from honoring fungi in general, *Lactarius peckii* pays tribute to two great New York State mycologists, namely Gertrude Simmons Burlingham (1872-1952), who first described it in her pioneering work "A Study of the *Lactariae* of the United States", 1908 (the first monographic treatment of the genus *Lactarius* of North America), and Charles Horton Peck (1833-1917), the New York State Botanist from 1867 to 1915, for whom she named it. *Lactarius peckii* is a beautiful milk cap mushroom, mycorrhizal with oak

and other hardwoods, and is common in the northeast in the summer and fall. In her original description, Burlingham notes that Peck collected it on August 30, 1904 near Smithtown, Long Island, and recognized that it was an undescribed species. She reports that a second collection was made the following summer on Staten Island. In July and August 1907, Burlingham said that it was the most abundant mushroom in the Pink Beds, North Carolina, southwest of Asheville. The type specimens, collected by Burlingham in North Carolina, reside in the collection of the New York Botanical Garden – along with the rest of Burlingham's herbarium specimens, her papers, and extensive personal library.

Please help make *Lactarius peckii* the official mushroom of New York State! The first step in the process is to draft a bill that will be introduced to the state senate and assembly. If any readers have experience in drafting legislation – or if you know anyone who has, please let me know. Contact me at:

tom_bigelow@hotmail.com

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Archive copies of the newsletter are available in the Resources section of our website.

Submissions for the next issue of the NYMS newsletter must reach the editor by June 15, 2018. Various formats are acceptable for manuscripts. Address questions to Juniper Perlis, editor. See above for addresses.

UPCOMING EVENTS

North American Mycological Association Foray

At the date of this publication, registration for this event has not yet started. The next annual foray will be held in the Adirondacks, at Paul Smith's College, Paul Smiths, New York on August 8-11, 2019
<https://www.namyco.org/events.php>

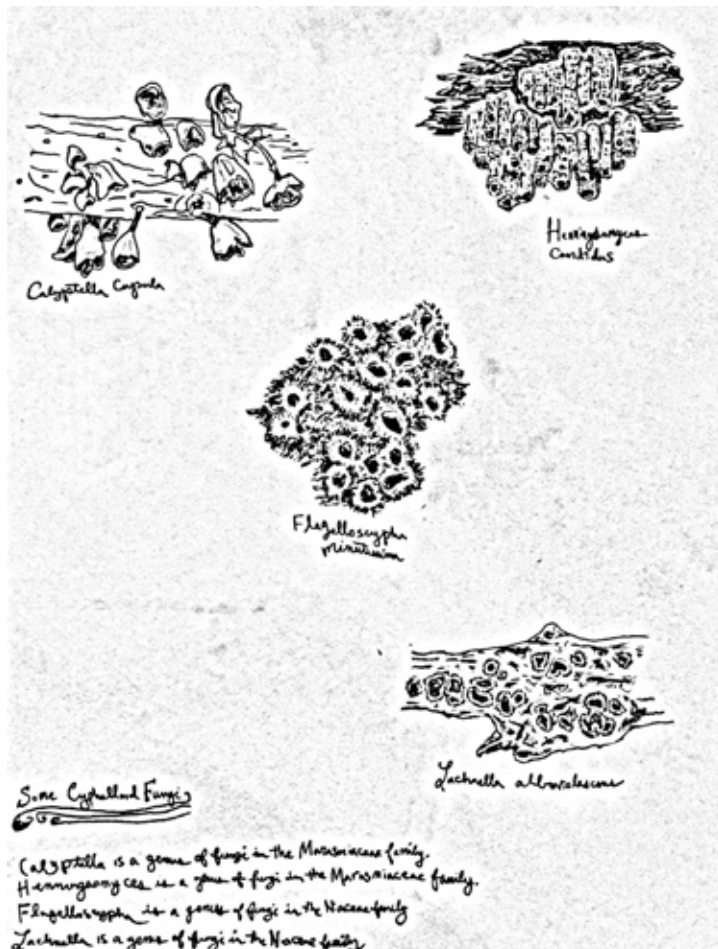
Northeastern Mycological Federation Sam Ristich Foray

This year's foray will be at the main campus of Lock Haven University in Lock Haven, Pennsylvania, August 1-4, 2019. The 2019 Registration form for the 43rd Annual Samuel Ristich Foray is now available.
<https://www.nemf.org/samuel-ristich-foray>

Greg Thorn and Cyphelloid Fungi

By Leah Krauss

On Monday, April 25, the New York Mycological Society hosted a presentation by Professor and Biologist Greg Thorn, of the University of Western Ontario. With a quiet affability, Thorn shared a brief history of inquiry into Cyphelloid Fungi, followed by reflections on present day research and findings. Cyphelloid Fungi are a grouping of small cup, tube or disc shaped basidiomycetes, that generally fruit in clusters, often with hairs along the outside, surface hyphae that are smooth or crystalline, and with a subiculum (a surface upon which the cups fruit). While Cyphelloids visually resemble the cup fungi of ascomycetes, ascomycete cups tend to face upward, whereas, like the gilled mushrooms to which numerous Cyphelloid Fungi are related, their fruiting bodies are positioned to sporulate in a downward direction. Thorn offered his audience a few glimpses of phylogenetic groupings, whereby we could see the diverse families and genera into which Cyphelloid Fungi are arranged. On the microscopic level, these small and numerous fungi bear distinct resemblance to their macroscopically dissimilar siblings. Cyphelloid Fungi's morphological similarities to one another, as well as their shared habitats (herbaceous twigs, moss, small sticks), offer a powerful object lesson in convergent evolution and how genetic diversity can produce similar outcomes under similar selective pressures. Below are a few illustrations I drew of some of the Cyphelloid Fungi Greg Thorn highlighted in his talk.



Cyphelloid fungi, including *Calyptella capula*, *Henningsomyces candidus*, *Flagelloscypha minutissima*, and *Lachenella albiviolascens*; drawings: Leah Krauss. Graphite on paper

Remember!

Stay responsibly in touch with us. If your telephone number, mailing or email address changes, please contact Paul Sadowski, Secretary with your new information. On your membership form, please consider going paperless when it comes to receiving these newsletters. Newsletters sent via email (PDF file format) are in color, have live web links, help us contain costs, and use fewer natural resources!

NYMS walks policy: We meet when public transportation arrives. Check the walks schedule for other transportation notes. Walks last 5-6 hours and are of moderate difficulty except where noted. Bring your lunch, water, knife, a whistle (in case you get lost or injured), and a basket for mushrooms. Please let a walk leader know if you are going to leave early.

Leaders have discretion to cancel walks in case of rain or very dry conditions. Be sure to check your email or contact the walk leader before a walk to see if it has been canceled for some reason. Nonmembers' attendance is \$5 for an individual and \$10 for a family.

We ask that members refrain from visiting walk sites two weeks prior to the walk.

Warning: Many mushrooms are toxic. Neither the Society nor individual members are responsible for the identification or edibility of any fungus.

Indian Style Curried Lactarius in Coconut Milk

by Dennis Aita



Lactarius hygrophoroides



Lactarius volemus

When one finds the choice *Lactarius volemus* and *Lactarius corrugis* during summer in our Northeastern oak woodlands, one sometimes comes across a lot of them. What to do with them all? If you want to preserve them for future use, they don't dry well, but they do freeze well after cooking. However, they are not well suited for cooking with oil or butter, even if you add some liquid, then freeze them. Several years ago, I came up with a good solution—cooking them in curried coconut milk. Not only was my initial dish delicious but freezing them with plenty of the curried coconut sauce allowed them to stay frozen in good condition for a considerable time. And there was never any freezer burn.

What follows are guidelines, not a strict recipe. First, you should be prepared, and have 2 cans of top-quality Thai coconut milk on hand during the summer months, should you find a nice quantity of *Lactarii*. I buy Chaokoh or Aroy-D brands in Chinatown but others in the know have mentioned Thai Kitchen (organic) or Trader Joe's brand. It really does make a difference. Don't run down to the store at the last minute to buy some second-rate stuff. Second, and even more importantly, when you collect the *Lactarii*, you should try to

use the best and youngest ones, not those that are dried out with uplifted caps and no latex. Third, cut your mushrooms in fairly large pieces, well over an inch, probably 2 inches is good. If in doubt, cut them bigger. They will shrink.

I like to use one or two sweet red peppers cut in 1/2 inch strips (green pepper will do). Some medium-hot red or green peppers are nice to add to the dish if you can take a little heat. Hey, most mushrooms don't go well with hot spices, but these very flavorful *Lactarii* definitely do!

As for the other ingredients, you'll need several yellow cooking onions (more is better than less), a few garlic cloves (less is better than more), salt and black pepper, optional ginger and cilantro, and, of course, some "curry". I don't make my own curry but there are some very good products on the market. My favorite is Sun Brand Madras Curry Powder. I also like the English Patak's curried pastes.

The really hard part to this recipe is to sweat the onions in oil (or butter, or ghee). The onions need to be chopped fairly well. This is a good time to use a labor-saving food processor or some other food chopper. In a pot large enough to contain the cut-up mushrooms, cook the minced onions in enough oil or

butter over a low temperature until softened and translucent. Add salt, and use a cover to help the sweating process. It is imperative that you cook the onions over a low temperature to avoid browning them. You want to preserve their appearance in the coconut milk sauce. This will take time. After the sweating process gets going, I often add a little water every once in a while to the pot, which prevents browning, or worse - burning. When the onions are ready, add some optional ginger in slivers or shreds, add several tablespoons of curry powder and/or paste. Stir for a minute or two, then add a couple of cloves of minced garlic. Stir for about a minute, then add everything else - first stir in one can of the coconut milk, then add the mushrooms, the peppers, add some black pepper, and some more salt. If you need the other can of coconut milk add it and stir. Cover the pot and cook over medium heat for about 15 or 20 minutes. Test for doneness. I find that it doesn't take long for the peppers and mushrooms to cook. I like to serve the dish with rice, and if you have some cilantro to chop for garnish, all the better. I suspect that if these *Lactarii* were to be found in South India, the locals would be making a similar dish.

photos this spread: Tom Bigelow

Thai Curry Lactarius in Coconut Milk

by Juniper Perlis



Lactarius corrugis

When Dennis first told me that he made a delicious curry with *Lactarius* mushrooms, I was skeptical. I thought the strong flavors of the curry would overpower the mushrooms. But, as I defer to Dennis' greater knowledge of all things culinary, I decided to give it a whirl. For some reason, I assumed he meant Thai curry, rather than Indian, so that's the direction I went in. Since we have a different spin on the same idea, we decided to share both recipes with you. I agree with everything Dennis wrote in the preceding recipe, although our techniques are different. However, in my experience, freezing *Lactarii* which have been cooked in oil or butter (I prefer oil) and submerged in liquid, either broth or coconut milk, is extremely effective and tasty. That being said, here is an alternative recipe for a *Lactarius* curry.

Ingredients:

- Lactarii**
- Yellow onions
- Coconut milk
- Peppers (Like Dennis, I prefer a colorful variety of red, orange, yellow, or purple. But green will certainly do.)
- Hot Thai pepper if you want the heat. Remove the seeds and veins with gloves on and use in moderation. For a really big pot of curry, I use the whole pepper.
- Thai basil
- Thai green curry paste (I'm sure red or yellow would work well too, but as in Dennis's recipe, the quality of the paste is essential.)
- Cooking fat. I prefer a combination of olive oil, ghee and sesame oil, but Canola oil or butter works fine, too.

*A note on using *Lactarius*. *L. corrugis*, *L. volemus*, and *L. hygrophoroides* are all good options. Always pick clean, trim the bottoms and brush the caps and never add a dirty mushroom to your bag of edibles. Store *Lactarius* separately from other edibles because they will exude their sticky milk onto everything else. The only problem with *L. hygrophoroides* is that they tend to grow in sandy soil and are harder to clean. To reiterate Dennis' comments, the younger, firmer, milkier mushrooms are better.

Begin by thoroughly cleaning and cutting your mushrooms into approximately 1 inch squares. In a heavy bottomed pan, saute *Lactarii* in your fat of choice, enough to thoroughly coat your mushrooms. Cook on high until mushrooms have released their liquid. Add onions, and peppers sliced long in ¼ inch strips, and hot peppers finely diced. Cook on high, stirring frequently until everything starts to caramelize, just a few minutes. Salt and pepper to taste. Turn the heat down and add the curry paste. The amount you add depends on how many mushrooms you have in the pot and how spicy you like it. Once the paste has browned, a minute or so, add the coconut milk. Again, the amount depends on how many mushrooms you have, but I am heavy handed with it. Continue to cook for another minute or two, until the flavors have melded. Add roughly torn Thai basil. Taste again for salt and pepper and add as necessary. Serve over long grain rice or quinoa.

Stepping Up Your Mushroom Game: 10 Surprising Ways iNaturalist Can Help

by Sigrid Jakob

Many of you will already be familiar with iNaturalist, an app and website that lets nature lovers of every kind document their finds. You might also know that the club maintains two iNaturalist ‘projects’—one to gather and showcase our collections within the five boroughs and one to do the same for finds in upstate New York, New Jersey, and beyond.

Our New York City project, barely a year old, has already logged almost 3,600 collections and over 660 species, making it the largest fungal census of an urban environment in the world. And it’s not just a list. Every single collection is geotagged to a precise location and comes with photographs, sometimes even microscopic images. Over time, this will become a tremendously valuable record of York City’s unique fungal ecosystem with all its fluctuations and changes.

Today, about a dozen members contribute to these projects on a regular basis. We would love for many more to get involved. Perhaps you find the app a little intimidating, assuming it’s a tool for the expert and not the amateur. Or, chances are, you simply just don’t know about all the amazing things you can do with it. So here’s a list:

1. **Find edibles:** Not sure which parks and spots to hit to find hens, chickens, oysters, wine caps, puffballs or enoki in the five boroughs? Ask iNat. Many users freely share their spots, and the app is accurate to within a few yards. While you’re not guaranteed to get lucky in a specific spot, you’ll get a sense of what areas are promising and what time of year to check in on them.
2. **Get an ID:** You’ve found a mystery mushroom and don’t even know where to start? Take a picture of the top, underside and the side and post it on iNat. Their identification algorithm is surprisingly good for the more common mushrooms, and might even suggest a genus you hadn’t thought to consider. Better still, some of the country’s leading mushroom experts (like John Plischke and Else Vellinga), will regularly ID specimens users have posted. Needless to say, if you’re planning to eat it, don’t just rely on iNaturalist - make sure you’ve also taken a spore print and verified your specimen’s ID using a field guide or an expert.
3. **Pinpoint the beginning of a season:** Because of inconsistent weather patterns, the start of the season for particular edibles often varies quite a bit from year to year. But thanks to iNat, the question “when will morel/chanterelle/bolete/hen of the wood season start?” is finally answerable. By subscribing to a genus or taxon you’ll get all new observations delivered to your feed, so you can watch them gradually wander up the coast, and get that basket ready.
4. **Remember all the names:** NYMS walks, while thrilling, can be quite overwhelming. I used to try and remember the IDs which walk leaders would share, perhaps scribble them in a notebook, but at the end of the mushroom year, my knowledge would evaporate, and come Spring I’d have to relearn almost everything all over again. Now that I document my finds on iNat, I go over them occasionally, using them like a set of personalized flashcards. Now the names stick; and even if I forget, I can simply flip through my recorded observations.
5. **Plan a trip:** In another part of the country or the world and curious about the local fungi? Check out iNat to see where the locals forage. The desktop site lets you filter observations by location and date so you’ll know what’s fruiting when you’re there. I’ve found chanterelles near my hotel on a business trip to Atlanta and planned a whole California hiking vacation using nothing but iNaturalist as my trail guide.
6. **Get competitive:** One of the more satisfying aspects of iNaturalist is the ability to compare the number of your observations and species found with those of fellow club members, friends or even the world’s best. And if you’d rather just compete with yourself, why not set yourself goals for the mushroom year - whether it’s hitting 500 observations or doubling the number of species observed.



A walk in Prospect Park photos: Jeff Hodges

7. **Follow your heroes:** Just like Facebook, iNat allows you to follow other users. Many respected mushroom experts post their best finds on a regular basis which is a wonderful way of discovering new species and exploring other geographies. I now start my day with a stream of gorgeous pictures of often unusual finds by mushroom greats like Alan Rockefeller, Christian Schwarz, Noah Siegel, Tom Bigelow and Ethan Crenson.
8. **Learn your trees:** Every mycophile knows that learning mushrooms also requires learning trees. Whether you're a morel aficionado trying to figure out what's an elm and what's an ash tree, or whether you want to get a deeper understanding of the complex mycorrhizal relationships in a specific ecosystem, you'll have to be able to ID trees. Snapping a picture of a leaf or a branch is often enough to figure out what tree you're dealing with.
9. **Follow a favorite species or place:** if you're interested in, or obsessed by, a specific taxon or species, you can subscribe to it, globally or locally, to better understand its many physical manifestations and patterns of appearance. Lichen authority and NYMS member Nova Patch is one of iNat's most advanced users, subscribing not only to a number of fungi, lichens and plants for the New York area but to all the fungi of Iceland and the Svalbard Islands as well as the plants, algae and slime molds of the Faroe Islands. I, on the other hand subscribe only to the fungi of Green-Wood cemetery and Prospect Park, but the point is, whatever your bliss, you can subscribe to it.
10. **Hone your IDing skills:** Finally, a fun and useful thing to do, especially in the slower months, is to help other people with their ID, while building your own skills in the process. For an observation to reach "Research Grade" status, at least two other users will have to agree with the original ID. You can pick a region and a kingdom, order or taxon which delivers a list of observations you can help to ID or validate. Not only are you helping other users, this also helps ensure the quality of observations and trains the image recognition algorithm. Nova Patch, for example, will flag errant lichen postings to make sure species not found locally don't sneak into local lists.

If any of this has made you curious, do check out iNaturalist's [video tutorials](#). Using the app and site is easier than it sounds. Consider joining the Club's projects. To make all of this even easier, we are planning to set up a workshop for members later this year and are considering doing brief tutorials before walks. Happy iNatting!

WHO'S IN A NAME?

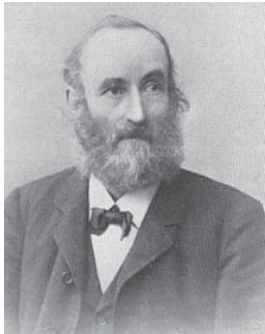
Henningsomyces candidus

(fifty-eighth in an ongoing series)

by John Dawson

Henningsomyces candidus (Pers.) Kuntze is a tiny cyphelloid fungus (a cup fungus that is a basidiomycete), often overlooked, that grows in clusters on the underside of logs. Viewed through a hand lens or dissecting scope the individual fruiting bodies are revealed to be fuzzy white cylinders that resemble the “soda-straw” tubes in the hymenium of *Fistulina hepatica*,¹ to which *Henningsomyces candidus* is in fact closely related.

The generic name *Henningsomyces* honors Paul Christoph Hennings, a self-taught German mycologist who rose to become curator of the Berlin Botanical Museum. Hennings was born 11 November 1841 in the town of Heide in Holstein to master tanner Hans Christian Hennings and his wife Charlotte Catharina. After receiving



Paul Christoph Hennings

his primary education in the provincial schools, he enrolled at the *Gymnasium* in the nearby town of Meldorf, but in 1860, during his third year there, he was

forced, by unspecified external circumstances, to withdraw from school before receiving his diploma. Despite that setback, however, he retained his desire to pursue a career in science and volunteered the next year to work as an assistant at the botanical garden of the Christian-Albrechts University at Kiel. Three years later, with the support of Ernst Ferdinand Nollte, the director of the botanical garden, and on the advice of his friend, the poet Klaus Groth, Hennings matriculated at that same university; but once again his plans were thwarted, because of the outbreak in 1864 of the Second Schleswig War between Prussia and Denmark.

During that war, Hennings worked for the German postal service—a job that he detested and that forced him to move several times. In 1867 he was transferred



Henningsomyces candidus, Forest Park, Queens, July 5, 2016 Photo credit: Tom Bigelow

to Hohenwestedt and married Mathilde Wendel, who later bore him two sons. There too, in addition to performing his postal duties, he found time to make numerous botanical excursions with his mentor Nollte, to issue exsiccatae and seed collections, and to teach at the local agricultural school. Then, in 1874, he was invited by Nollte's successor, A.W. Eichler, to return to the botanical garden in Kiel.

Back at Kiel, Hennings organized the garden's large herbarium, expanded its collections, and published two regional floras, one for the region around Hohenwestedt and the other for the vicinity of Kiel. It was also there that he began to specialize in studying cryptogams.² Among other projects, he amassed a complete collection of the larger algae from the bight of Kiel.

In 1878, Eichler moved to the herbarium in Berlin and two years later invited Hennings to join him. Eichler had established public exhibition spaces at the herbarium, and he put Hennings in charge of both setting up the displays and constructing a separate cryptogamic herbarium. From then on, Henning's interest turned increasingly to fungi: first to pileate fungi, then to smuts, rusts and parasitic ascomycetes. He rapidly gained recognition as an authority in fungal taxonomy and began receiving inquiries and fungal specimens from German colonies around the world. He described many new species, especially from northern Germany and the tropics.

In 1891, Hennings was promoted to curator of the Berlin museum, and in 1902, despite his lack of formal academic credentials, he was named “royal professor” in recognition of his scientific accomplishments and expertise. (His botanical publications numbered in the hundreds,

mostly in the journal *Hedwigia*, of which he served as editor from 1893 to 1905.)

The death, in 1907, of one of Hennings' sons, caused him to abruptly cease his writing and other activities, and he died less than a year later, on 14 October 1908.

Sources: The primary source for this profile was the entry on Hennings by Klaus Müller in *Neue Deutsche Biographie*, vol. 8 (1969), pp. 548 ff. Other sources consulted were the Wikipedia entry on Hennings, from which the accompanying portrait of Hennings was extracted, and the obituary memoir of Hennings by Gustav Lindau, translated into English by J. Perkins, published in the *Botanical Gazette*, vol. 47 (1909), pp. 239–241.

John Dawson is a long time member of the Eastern Pennsylvania Mushroomers (<http://www.epennmushroomers.org>), and writes frequently for The Keysone Cap - the club's newsletter. “Who's in a Name?” is Dawson's ongoing series of fascinating articles on the people behind mushroom names. “Who's in a Name?” appears regularly in the NJMA News - the newsletter of the New Jersey Mycological Association. Many of which can be found archived on the NJMA website: www.njmyco.org. I am thrilled to be given the opportunity to publish some of this series (currently numbering 71!) here, and I look forward to reading more in the future. Thank you, John Dawson! - editor's note

¹ Excellent photomicrographs of *Henningsomyces candidus* accompany the article “Small wonders”, by Larry Millman, on pp. 32–34 of *Fungi*, vol. 9, no. 3 (Fall 2016)

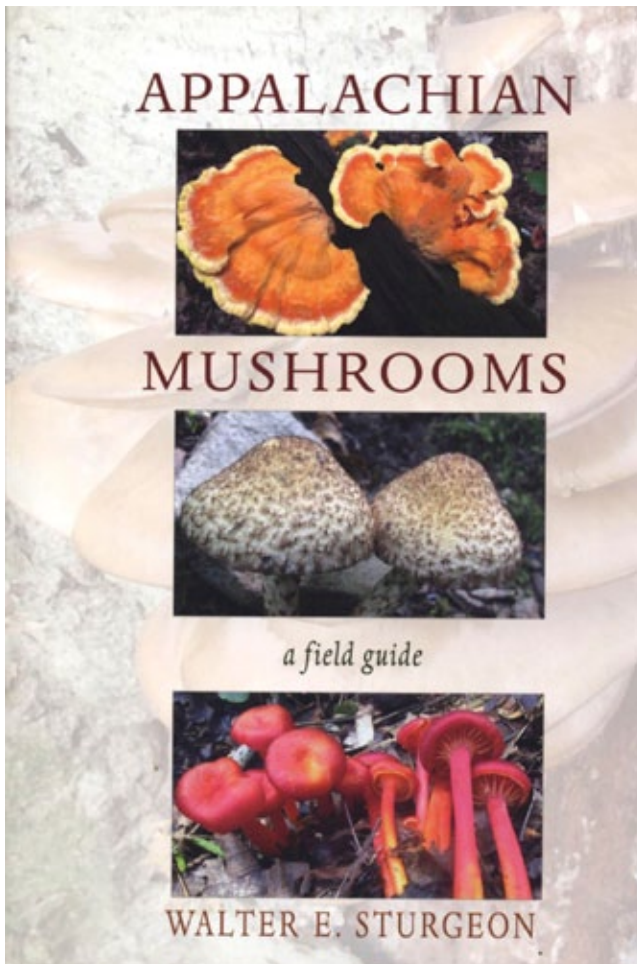
² The division of plants into those that flowered (phanerogams) and those that did not (cryptogams) was a concept introduced by Eichler himself, as was the division of the phanerogams into gymnosperms and angiosperms and the latter into the monocotyledons and dicotyledons.

Appalachian Fungi: A Field Guide

By Walter E. Sturgeon

Athens: Ohio University Press, 2018. 471pp.

Book Review by Tom Bigelow



on display in his new book, *Appalachian Mushrooms: A Field Guide*.

The Appalachian region is expansive, stretching from Georgia to New England and containing innumerable habitats—so the fungal diversity of the region is enormous. The book treats 395 fungi (371 basidiomycetes and 24 ascomycetes) in detail, providing up to date nomenclature (lots of new names!), synonymy, common name, family, description, notes, and at least one photograph for each of the fungi covered. The photographs, most of which are by the author, are generally excellent. The fungi are divided into groups (gilled mushrooms, bo-

letes, polypores, etc), and easy to use keys precede each section, generally with spore color (for gilled mushrooms and boletes) as the entry point. As with the *Audubon Guide*, some of the sections are arranged by fruit body shape and texture, e.g., the section “Club-Like and Coral-Like Fungi” contains a mix of basidiomycetes and ascomycetes. There are many interesting factoids in the notes sections, for example, recent DNA studies have shown that *Lactarius chelidonium* Peck is the same as north American collections of *Lactarius deterrimus* Gröger! Anyone seeing the picture of

Hypholoma lateritium under uv light will immediately run out to buy one so that they can test every fungus they find to see if it fluoresces.

The book treats quite a few fungi that aren't found in other guides covering the same general area. I selected fifteen fungi (gilled mushrooms, polypores, corals, ascos) and looked them up in five field guides, published between 1997 – 2018 that treat the area covered by *Appalachian Mushrooms*. I found that four were not included in any of the other books, eight were only included in one other book, one was covered in three of the other books, while only one was included in four. This random sampling is a good indication that *Appalachian Mushrooms* will go a long way in filling gaps left by other field guides. My one criticism is that the publisher should have done a better job with the printing, as the images are sometimes dark, or colors are off. For a subject where the accurate reproduction of color photographs is crucial, this is unfortunate. Still, this book is excellent and will be a welcome addition to your mushroom library.

Walt Sturgeon has studied mushrooms for over forty years and has become one of the great field mycologists of our time. He is a fixture at NAMA and NEMF forays, and if you see him working the collection tables, and watch him looking carefully over specimens, you will sense that he is an authority. If you approach Walt on a foray, to ask his opinion on a mushroom that is beyond your abilities to identify, you'll know that he is open and generous with his knowledge. This marvelous combination of deep knowledge and generosity is plainly



Walt Sturgeon

Mycomentary

by Ethan Crenson

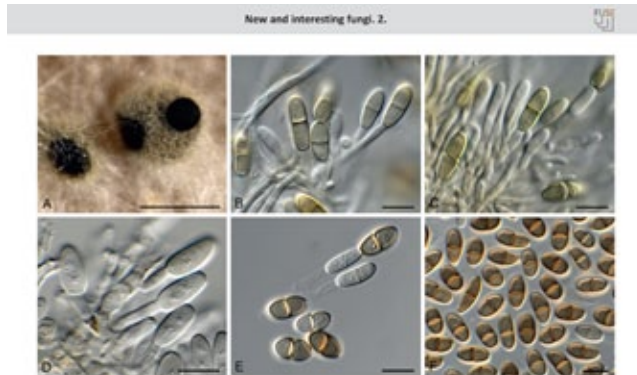


Fig. 53. *Porodiopodia vitis* (CPC 11442). A. Conidiomata on OA. B–E. Conidiogenous cells giving rise to conidia. F. Conidia. Scale bars: A = 300 μ m, B–F = 10 μ m.

Conidiomata extraxillate, unit to multicellular, brown, globose, 150–300 μ m, aggregated on agar, ostiole. Conidiophores lining lower cavity, subcylindrical, hyaline, smooth, branched, 1–3-septate, 15–20 \times 2.5–6 μ m, proliferating percurrently near apex. Prophylls intermingled among conidiophores, hyaline, smooth, septate, subcylindrical with obtuse ends, 25–30 \times 3–4 μ m. Conidia in short chains (4–11), fusoid-ellipsoid to subcylindrical, medium brown, finely verruculose, guttulate, thick-walled, 1-septate, apex obtuse (at times with central pore), base truncate with central pore, 2 μ m diam, (13–14–56)–93 \times (5–36–40) μ m.

Culture characteristics: Colonies erumpent, spreading, with moderate aerial mycelium and smooth, lobate margin, reaching 35 mm diam after 2 wk at 25 $^{\circ}$ C. On MEA surface cinnamon to buff, reverse sinuate, on PDA surface saffron, reverse cinnamon; on OA surface cinnamon, with diffuse cinnamon pigment.

Typus: USA, New York, Bronx, Van Cortlandt Park, on canes of *Vitis vinifera* (Vitaceae), 2016, E. Crenson & R.K. Schumacher, CPC 1372 (holotype CBS H-23795, culture ex-type CBS 144634 = CPC 131642).

Notes: *Porodiopodia* was recently established for a genus occurring on leaves of *Lythrum* australis in Australia, characterised by having extraxillate conidiomata, and conidia occurring in short chains, with a pore at each end of its conidia (Cruz et al. 2018c). *Porodiopodia vitis* differs from *P. lythrum* (conidia (54–)55–117–200) \times 50–61 μ m) in having shorter, wider conidia.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Porodiopodia lythrum* (GenBank KM427809.1;

identifiers = 5137336 (99 %), no gaps), *Chaetura chlamyris* (GenBank NR_143113.1; identifiers = 528297 (97 %), 1 gap (0 %)), and *Atalapha caryophylla* (GenBank KY96583.1; identifiers = 5067542 (93 %), 2 gaps (0 %)). Closest hits using the LSU sequence are *Porodiopodia lythrum* (GenBank MH327843.1; identifiers = 859709 (100 %), no gaps), *Chaetura chlamyris* (GenBank MH87823.1; identifiers = 765772 (99 %), no gaps), and *Chaetochalara aphicana* (as *Chaetura aphicana*, GenBank FJ176249.1; identifiers = 834949 (98 %), 2 gaps (0 %)). No ITS sequences of *Porodiopodia* are available on GenBank for comparison; distant hits using the ITS sequence had highest similarity to *Dovosporium* (GenBank KJ728592.1; identifiers = 205233 (88 %), 7 gaps (3 %)), *Hymenoscyphus* (GenBank KM114512.1; identifiers = 231231 (88 %), 6 gaps (2 %)), and *Fusicium napiforme* (GenBank KM09398.1; identifiers = 201231 (87 %), 4 gaps (1 %)).

Selenodendro ferris (Proc. & Hodges) R.F. Castaldi & W.R. Kendz., Univ. Waterloo Biol. Ser. 33: 34, 1990, Fig. 52. Basonym: *Circinaria* Ferris Proc. & Hodges, Canad. J. Bot. 51: 160, 1973.

Conidiophores dimorphic. Microconidiophores reduced to conidiogenous cells or with a supporting cell, arising directly from mycelium, hyaline, smooth, subcylindrical, tapering toward dehiscent apex, 7–12 \times 2.5–3.5 μ m. Macroconidiophores erect, arising from superficial hyphae, flexuous, branched or not, base with 7-cell or rhizoids, subcylindrical, 60–240 \times 4–5 μ m, 4–10-septate, lateral branches 0–5-septate, 15–60 \times 2.5–3 μ m. Conidiogenous cells pale brown, smooth, subcylindrical to elongated fusoid-ellipsoid, terminal and intercalary, with apical rostris of dehiscent loci, denticles 1–2 \times 2–1.5 μ m, scars somewhat darkened, not thickened nor reflective, 20–30 \times 3–

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Porodiopodia vitis as published in *Fungal Systematics and Evolution*, vol. 3 June 2019, courtesy the authors

There was a pop-up walk on a sunny May day in 2016 on the east side of Van Cortlandt Park. We all met at the corner of E 233rd Street and Jerome Avenue. There were probably 20 of us in all. Gary Lincoff led us into the woods where we encountered the many late spring/early summer mushrooms. I was quite taken by a fruiting of *Crepidotus crocophyllus* on a log near our path. They have such a pleasing brown, velvety cap and beautiful yellow gills! They were the most beautiful mushroom I found that day. In all we cataloged around 70 fungi on that walk, and were able to identify around 50 of them to species.

It's not that I have a razor sharp memory for things that happened nearly three years ago. In order to reconstruct this walk in my mind I had to look back through my photos from that day, consult the walk lists on the NYMS web site and peer at satellite

images of the park on Google Earth. But something else happened that day that made it significant after the fact.

At a fork in the path near the very eastern edge of the park, I paused by a slender vine that had grown over some woody shrubs. As I plucked a dead stem from the vine, Mical Moser identified it as *Vitis* species—grape vines. On one stem a group of minute hairy black ascomycetes clustered. Perhaps not as beautiful as the *C. crocophyllus*, but they piqued my interest. I had recently acquired a microscope equipped with a camera. So when I got the twig home I documented it with photos. I also crushed one of the ascos on a slide and took photos and measurements of the conidia. Having no idea what I had found, I decided to ask the internet for help. I posted my find on the web site Ascofrance.com—two photos along with three sentences describing the thing, including measurements of the conidia (which I

referred to as “spores”). Later that day, a German mycologist, René Schumacher, contacted me and asked if I could send a sample of my collection to him. I prepared an envelope with the specimen and scant information about the collection and mailed it away to Germany. Two years and eight months passed. Then, unexpectedly, I received word from Mr. Schumacher that he and his colleagues had successfully sequenced the collection and published their findings. They christened the newly described species I had stumbled on *Porodiopodia vitis*. After I recovered from the initial surprise at my unwitting discovery, I realized that I had many questions to ask. So I asked Mr. Schumacher my questions by email. Mr. Schumacher became interested in fungi at an early age when his mother introduced him to the edible mushrooms

in his region. As his interest in fungi grew, the size of fungi he was interested in grew smaller. Eventually he began to practice “Polyphasic Taxonomy” together with a cadre of mycologists across several continents. “Polyphasic taxonomy”, Schumacher explains, “is a process wherein the mushroom marks the beginning of the process and the final scientific name is the end result.” Along the way, a variety of data are collected and compared including “exsiccates, protologues, chemical color reactions, special light features and, of course, phylogenomic data”. But he emphasizes that sequencing and naming is only a component of the larger work of collecting, understanding and advancing our knowledge of the fungal kingdom.

I was particularly interested to know how Mr. Schumacher recognized my post on Ascofrance had the potential to be something special for his research. He insists that his instinct led him to focus his efforts on the Van Cortlandt specimen. But *P. vitis* was, in fact, a single part of numerous parallel “mini-projects” that he is running at any given time.

So far, only two species of *Porodiopodia* are known and these only from their asexual morphs. The genus is distinct from the genus *Diplodia* in the manner in which the conidia are formed on simple chains. Mr. Schumacher remarks that this type of conidiogenesis is “something special”. He adds, “*Porodiopodia* belongs to the *Helotiales*. Someday a discomycete could be found in North America and genetics will identify this fungus as the sexual morph. Then we will have the holomorph. For the ecology to be fully resolved, however, more research will be necessary.”

Let that serve as a call to action to citizen scientists everywhere. Perhaps you could find the sexual morph of *P. vitis* that completes the picture of the life cycle of this organism. For my part, I will continue to look for *Porodiopodia vitis* on the stems of grape vines in New York City parks. With luck I will see it again.

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To see the full article in which the new species *Porodiopodia vitis* appears you can visit: <https://bit.ly/2VptWau> and click download article.

2019 Business Meeting

Around 20 members of the Society met on February 2, 2019, 3 PM at Vicky Tartter's apartment.

Tom Bigelow chaired the meeting, opening with announcements about the current Emil Lang Lecture series:

- a. Else Vellinga, "Fungal Conservation," February 25. Else needs accommodations Sunday and Monday night. Vicky offered accommodations.
- b. Greg Thorn, "Explorations of Cyphelloid Fungi," March 25. Greg is staying with Ethan Crenson
- c. Rod Tulloss, "Amanita with a Hand Lens and the Naked Eye," April 29. Rod is tentatively staying with Vicki Sunday and Monday night.
- d. Nova Patch, "Urban Lichens of New York City," May 20

Workshops/Other Events

- a. Paul Sadowski, "Intro to Microscopy Intensive," Dana Center, 11:00-4:00, Sunday March 10 (20 person max, fee \$35.00)
- b. Denis Benjamin, "Mushroom Edibility: Myths and Misunderstandings," Dana Center, Sat. April 13 (30 people max, fee tbd). Have the space 1:00-4:00.
- c. Rod Tulloss, "A citizen Scientist's View: From Raw Data to a Sequence of Confirmed Quality," City College, Sunday April 28 (20 people max, fee tbd)
- d. Lichen Walk with Nova Patch, May 25 or 26
- e. Andrew Miller (University of Illinois) and Teresa Iturriaga (Cornell) may conduct a pyrenomycete/discomycete workshop in the fall

Details about the Mycoflora project with Mical Moser and Sigrid Jakob offering comments:

- a. iNaturalist – WE NEED MORE MEMBERS USING IT!
- b. Vouchering specimens should be incorporated into the Foul Weather Friends meetings to familiarize more users with the routine.

Foul Weather Friends: Meetings have been held at Tom & Juniper's place (Crown Heights) and at Ethan Crenson's (Park Slope), Monday or Tuesday nights, all year. It would be great if we had an occasional Manhattan venue. Sadowski is volunteering as soon as he has enough seating.

2018 Walk Schedule: Dennis Aita discussed plans for this year's schedule.

In light of Kat Moon's summons in Central Park there was a discussion about getting permits for our walks in NYC Parks. Vicky Tartter volunteered to make inquiries.

1. Morel Breakfast
 - a. Saturday, May 4 at Mimi & Howard Goldstein's home
 - b. There will be a recon trip to Wesley Chapel a week prior to clear trails, which were nearly impassible last year.
 - c. As Mimi and Howard are bringing their hosting to an end we need to start thinking about other venues for breakfast & walk.
2. NYMS Weekend Forays
 - a. Chanterelle Weekend, July 26 – 28 (Dorota Kolodziejczyk & Jason Duval are organizing along with Laura Biscotto & Adrienne Haeberle. The venue is Spring Hill Farm situated on 80 acres near Stratton Mountain South of South Londonderry, VT
 - b. Catskill Weekend will be held October 4-6 at Soyuzivka in Kerhonksen, NY. We have flexibility in sleeping numbers and lodges.
 - c. NEMF is held in Lockhaven, in central PA, Aug. 1-4; NAMA, Paul Smiths, NY, Aug. 8-11

Dennis was encouraged to call upon some of our newer members to serve as walk leaders.

Mycophagist's Table & Banquet: Neil Redding reported that the Winter Gathering at Beyond Sushi is fully booked with 85 people reserved. There was some discussion about the Chinese Vegan place in Chinatown and a Polish restaurant in Greenpoint.

Book Auction: Tom said we presently have about 140 books and journals, most are left-overs from the last auction and some donations (notably from Laurette Reisman). We also have some pretty nice artwork (prints and original watercolors). The majority of the books are less than desirable and many are in poor shape. We definitely don't have enough to warrant holding an auction this year. Anyone interested in seeing the list should contact Tom.

Juniper reported that the Winter newsletter was near at hand. The deadline for the Spring newsletter is March 23.

Mical Moser expressed the idea of giving the newsletter a formal name. An appeal for ideas will be solicited from the membership. Sadowski's suggestion of NYCMYC fell like a lead balloon on Vicky's coffee table. No apparent damage to the coffee table.

Kay Spurlock submitted her Treasurer's Report and elections were held. The current slate of officers will remain for this year.

Given the robust condition of our treasury, a motion to establish a Gary Lincoff Scholarship to support the attendance of a person or persons at one of the major forays (NEMF & NAMA) was offered and seconded.

Tom closed the meeting around 5:30 PM



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I hereby release the New York Mycological Society, any officer or member thereof, from any legal responsibility for injuries or accidents incurred during or as a result of any mushroom identification, field trip, excursion, meeting or dining, sponsored by the Society.
Your signature(s) _____
Date _____

