

# NJMA NEWS

THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION  
VOLUME 50-5 NOVEMBER-DECEMBER 2020

## NJMA OFFICERS

President - Frank Marra  
Vice-President - Sue McClary  
Secretary - Stefanie Bierman  
Treasurer - Igor Safonov

## DUES

Payable for calendar year  
Individual: \$10.00 (online newsletter)  
\$35.00 (hardcopy newsletter)  
Family: \$15.00 (online newsletter)  
\$40.00 (hardcopy newsletter)  
Mail checks (payable to NJMA) to:  
Igor Safonov  
115 E. Kings Hwy., Unit #348  
Maple Shade, NJ 08052-3478

## NJMA WEBSITE

[www.njmyco.org](http://www.njmyco.org)  
Jim Barg, Jack Barnett, Bob Hosh

## NJMA NEWS

### Editor:

Jim Richards  
211 Washington Street  
Hackettstown, NJ 07840-2145  
[njmaeditor@gmail.com](mailto:njmaeditor@gmail.com)

### Art director:

Jim Barg  
[jimbarg@bssmedia.com](mailto:jimbarg@bssmedia.com)

### Hard-copy printing:

Castle Printing, Ledgewood, NJ

### Deadline for submissions:

10<sup>th</sup> of even-numbered months.

Send newsletter submissions ONLY  
to the Editor.

All other correspondence should be  
sent to the Secretary:

Stefanie Bierman  
407R Indiana Avenue  
Long Branch, NJ 07740-6119  
[steflowers@gmail.com](mailto:steflowers@gmail.com)

## NJMA EVENTS HOTLINE

908-227-0872 for information on  
NJMA events or cancellations due to  
bad weather. It is NOT for general  
inquiries or to contact officers!



## Armillaria mellea

This is a parasitic fungus which grows on all kinds of trees and stumps mostly in the fall. It tends to grow in groups attached at the base. This species sports a ring, giving it the name "Ringed Honey Mushroom". (It is called a "honey" because of its color, not its flavor.) There is also a ringless species, *Armillaria tabascens*, which resembles this one. The ringed version is edible when cooked thoroughly!

PHOTO BY JIM BARG

## WHAT'S INSIDE:

President's Message .....	2
Editor's Notes .....	2
Book review: <i>Northeast Foraging</i> .....	3
Book review: <i>Northeast Medicinal Plants</i> .....	3
Book review: <i>On the Track of the Elusive Slime Mold</i> .....	4
Foray Reports .....	<i>begins on page 5</i>
Bytes, Bits, & Bites .....	<i>begins on page 9</i>
Who's In A Name?.....	10
Longevity of Taste & Texture of Stored Mushrooms .....	11
Library Notes .....	13
"Mushroom Day at the Mine" .....	14, 20
Book review: <i>Koji Alchemy</i> .....	15
Foray Report: Belleplain State Forest .....	17
North American Mycoflora Project Changes Name .....	18
Virtual Mushroom Talks on YouTube .....	19



## PRESIDENT'S MESSAGE

The Tuesday evening Zoom Taxonomy sessions have been a tremendous success. We have to thank our Education Coordinator, Luke Smithson, for coming up with the idea and managing the Zoom sessions. While everybody helps with ID, special thanks goes out to Dave Wasilewski, Maricel Patino and Dorothy Smullen.

The NJMA Facebook Discussion Group has been sharing a lot of nice finds. If somebody found a mushroom in NJ, you might also find the same mushroom.

Luke is doing double duty by organizing online lectures in conjunction with the New York Mycological Society. They are such great learning opportunities and you do not need to leave the comfort of your own home to access them.

“Progress is a process, not an event.” This old adage holds true for mushrooming. No one lecture would be able to teach you everything you need to know. I am happy if I learn one new thing with each lecture or foray. Mushrooming is a long-term venture while meeting lots of nice people along the way. Special thanks go out to Nina and John Burghardt for making the forays possible.

The Holiday Party and Photo Contest at the Unitarian Society is cancelled. The food everyone brought for the potluck dinner last year was so amazing. This year I will have to use my culinary imagination.

Hope everybody is staying well.

– Frank Marra



## EDITOR'S NOTES

Well, this has certainly been a year that no one could have imagined or wanted to, except in some really strange science fiction novel. But the good thing is that we are still here and holding our own.

Thanks to Luke Smithson and our identifiers, Dave, Maricel, the Burghardts, Dorothy, and others the weekly virtual taxonomy sessions have been a continual learning session for many of our members.

The several virtual guest lectures have been well attended and more are in the works.

Nina Burghardt's forays have been very well attended, with all of them having waiting lists of members hoping for a spot to open up for every foray. John Burghardt's foray reports have been the backbone of *NJMA News* since May. Without the dedication of the Burghardt's to the forays and John Dawson's WIAN (Who's in a Name?) essays, *NJMA News* would be very thin indeed. Thank you!

As I have said before, if you are interested in contributing an article to *NJMA News*, please contact me ([njmaeditor@gmail.com](mailto:njmaeditor@gmail.com)) and we can work out details. Photos (with captions), recipes, bits for BBB, etc. do not need prior arrangements. Just send them in! Same email!

Until next year, Happy Holidays, and stay safe!

– Jim Richards

*NJMA News* is published bimonthly by the New Jersey Mycological Association. Annual subscription price is included in NJMA membership annual dues.

Except where noted, articles may be copied or reprinted with credit given to the author(s) and *NJMA News*.

Views expressed herein do not imply New Jersey Mycological Association endorsement.

Join us this Tuesday!  
**TAXONOMY TUESDAYS**  
Online every Tuesday evening at 7:00PM on ZOOM!  
Download the ZOOM app to your phone, computer, or tablet and have digital photos of your mushrooms ready to present to the group.  
Watch your email for details!

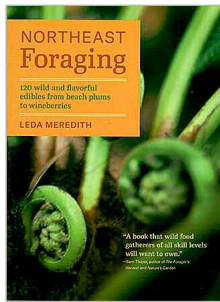
**WELCOME TO THE ONLINE EDITION OF NJMA NEWS**  
For the great majority of you who are viewing the online PDF of this newsletter, please note that **most web links and email addresses are clickable**. Clicking on a **blue** web or email address will launch your web browser and take you to the specified page or open your email software so you can send an instant email. Just look for the “click finger” when you hover your mouse over these items.



## BOOK REVIEW

# NORTHEAST FORAGING

a review by Dave Wasilewski



## *Northeast Foraging*

by Leda Meredith

Timber Press (2014)  
308 pages

ISBN-10: 9781604694178  
ISBN-13: 978-1604694178

Maybe it stems from fond memories of plucking apples, cherries, peaches, pears, and grapes found within the backyards that bordered the small residential property where I grew up. Or the anticipation of a weekend outing into the woods to gather blueberries or hickory nuts with my dad and brother. Perhaps it's simply hard-wired into the collective human psyche. But, there's something about plucking a fruit from a tree or finding a nut on the ground that's much more satisfying to me than getting the same item out of a refrigerator.

Since the days of my youth, I have learned quite a bit about the edible fruits, nuts, and leafy things that may be found in nature. Indeed, this was the initial motivation for my becoming interested in wild mushrooms. So, when I was offered the opportunity to review *Northeast Foraging* by Leda Meredith, I immediately accepted.

In the words of the author, this book offers information about “120 wild and flavorful edibles, from beach plums to wineberries.” For each of these foods, there is a detailed yet easy-to-understand description that utilizes a minimum of technical terms. Additionally, each entry includes explanations about where and when to gather, how to gather, how to consume, how to preserve, recommendations for sustainable harvesting, and in some cases a warning about any danger associated with consuming or harvesting. Each entry is accompanied by at least one helpful photo. A short introductory section breaks down the annual harvest into five seasons: early spring, late spring, summer, fall, and winter, with a list of what to look for during a given season. Each seasonal list is further broken down into types of habitat. The main entries proceed alphabetically by common names. In each case, either a Latin binomial or genus that encompasses a group of similar offerings is provided. This all adds up to a well-organized, user-friendly exposition of the edible fruits, nuts, vegetables, and tubers available in the woods, meadows, wetlands, suburbia, and even urban areas of Northeast North America.

While reading through this book, I looked for possible omissions. I did not see an entry for “gooseberries”. (My grandmother had a gooseberry bush in her yard.) A bit of research revealed that gooseberries are also called

currants, which are described within the book. As a child, I knew places where edible chestnuts were found. But, since the American chestnut tree is now virtually extinct in the area covered, it is pointless to include it. There is no mention of wild ginseng. But this is likely due to overharvesting having caused this plant to be included within lists of endangered species, and thus to omit it indicates sound judgment on the part of the author. Finally, one may wonder why edible mushrooms are nowhere mentioned within this book. But, as any wild mushroom hunter should know, the perplexing diversity of species within the Kingdom of Fungi makes for a topic that requires separate attention.

There are two things I would suggest that could have been included in *Northeast Foraging*. First, there is short section included in the introduction that addresses “Foraging safely”. There is no mention there of the possible dangers associated with insects or snakes. I think it would be prudent to at least remind the reader that such considerations are worthwhile. Also, for some of the entries there is a paragraph under the heading “Warning” that sometimes offers a small amount of information pertaining to toxic plants that may be confused with the particular edible entry. In total, not many of these toxic plants are mentioned. For example, “poison hemlock” appears in several different warnings. I think it would have been useful to include a short “skull and crossbones” section toward the end of the book, separate from the edible types. A few such pages could be devoted to a photo and short description of each dangerous plant.

*Northeast Foraging* is highly recommended for anyone interested in gathering wild things to eat; well organized and regionally inclusive. I'll soon purchase a copy for my bookshelf.

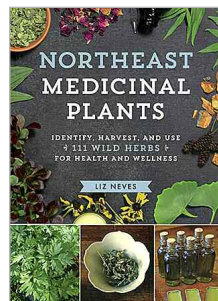


## BOOK REVIEW

# NORTHEAST MEDICINAL PLANTS

IDENTIFY, HARVEST, AND USE 111 WILD HERBS FOR HEALTH AND WELLNESS

a review by Jim Richards



## *Northeast Medicinal Plants*

by Liz Neves

Timber Press (2020)  
416 pages

ISBN-13: 978-160469135

*Northeast Medicinal Plants* is a book that deserves a place in the library of anyone interested in using natural remedies. Encyclopedic in content, it is also very user-friendly.

(continues on [next page](#))

The first (almost) 100 pages are devoted to the basics: How to use the book, plant morphology, collecting procedures (how and when to wildcraft), and how to prepare and use the harvest. Sustainability of the plants is extremely important to the author and is a recurring theme through the book. “Making Your Own Medicine” gives detailed instructions for making extracts, tinctures, infusions, elixirs, syrups, and more.

The last section of basics is “Wildcrafting Season by Season” with an extended eleven “season” chart of the optimal harvest times of all the plants listed. Spring, summer, and fall are divided into early, mid, and late season. Winter is divided into early and late.

Then follows the largest section, 300 pages of detailed information about the wild medicinal plants of the northeast (Eleven states from Maine to Maryland and six Canadian provinces). For each of the plants, the author lists the common name(s), Latin binomials, photographs of the plants and parts used, how to identify, when, where and how to wildcraft, medicinal uses, precautions, future harvests, and recipes and dosages for each of the herbal preparations recommended.

A most useful five page listing of resources and references brings the book to a close.

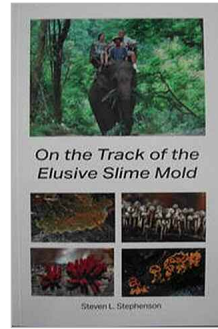
I repeat what I wrote at the beginning of this review: Add this book to your library if you have any interest at all in wild plants.



## BOOK REVIEW

# ON THE TRACK OF THE ELUSIVE SLIME MOLD

a review by Virginia Zoll



## *On the Track of the Elusive Slime Mold*

by Steven L. Stephenson

Book Baby (2020)  
416 pages

ISBN-10: 109833132X  
ISBN-13: 978-1098331320

*On the Track of the Elusive Slime Mold* is the story of a life collecting slime molds (myxomycetes) around the world.

The author describes his early life on a farm in Virginia, college and graduate school and his first experiences collecting slime molds, which led to a life-long career that took him to many countries and all seven continents.

He tells how the building of relationships with people at educational institutions in other countries led to opportunities to search for slime molds. There are always difficulties along the way with rough seas, accidents, strange foods and unexpected changes in the weather, but all the efforts yielded extensive collections and the discovery of many new species.

Dr. Stephenson’s life has also been involved with passing on the knowledge of these fascinating organisms to many graduate students and holding seminars for students and members of the general public who have an interest in biology and the world around them.

Although this book does not go into descriptions of the biology and life cycles of the slime molds themselves or their importance in the environment, it gives a picture of how a dedicated scientist may find his particular field, and actually goes about his work.

The book is profusely illustrated with scenes from the author’s travels, photos of the people with whom he worked, and a sample of some of the many myxomycetes he collected, showing the great variation in form and color of these organisms.

*Editor’s note:* Ms. Zoll is an NJMA member who has taken several courses with Dr. Stephenson. He sent her the book and asked her to review it and get the information to as many mushroom clubs as possible.

Dr. Stephenson’s earlier book, *The Kingdom Fungi: The Biology of Mushrooms, Molds, and Lichens* is in the NJMA Robert H. Peabody Library.



PHOTO BY MARJA VAN OUWERKERK

*Giant Puffball three ways: With eggs and bread crumbs, then fried (top); Grilled and topped with pesto (left); With grated romano cheese, fried in olive oil (right).*



## STOKES/KITTLE FIELD FORAY SANDYSTON, NJ – AUGUST 30, 2020

by John Burghardt

Stokes is one of my favorite places to collect fungi. I love the smell and feel of the deep woods of mature, mixed deciduous trees, hemlock, and even some pines. Most years, the Stokes Kittle Field Foray is our second or third visit to this part of New Jersey. This year it was our first, because June visits for the Victor Gambino Foray and Stokes Lake Ocquittunk forays had been cancelled. So I was eager to get into the woods when we arrived.

The woods were still moist from recent rains, and the day was clear and comfortable. It took just a few minutes to realize the mushrooms were rushing to disperse their spores before fall sets in. I never got more than a few hundred feet from the picnic area – there was too much to look at, photograph, and collect, plus I ran out of space in my basket. Returning to the picnic area at noon, every table was loaded with diverse, fresh fungi in good condition. Even so, I was surprised that we would eventually identify over 170 taxa from those tables.

A PDF file, which is located at [www.njmyco.org/downloadables/kittle2020.pdf](http://www.njmyco.org/downloadables/kittle2020.pdf) contains the species list. It is arranged alphabetically by “form groups”. Form groups are defined by the structures of the fungus’ spore-bearing surface. “Mushrooms with gills” and “Boletes” are the most common spore bearing structures among the fungi we collect, and these were especially plentiful this week. The table also includes information on the frequency with which we have found the various taxa, both this year and over the nearly forty years NJMA has kept collection records. For the first time, I have attempted to provide you with live links to specific collections made at the Stokes Kittle Field 2020 Foray which have been posted to the *Mushroom Observer* website or to the *iNaturalist* website. Thanks to Dave Wasilewski, Maricel Patino, and Liz Broderick for the posts of our fungi, and to Karen Fisher for the posts of lichens. This set of photos reflects the diversity of our collections very nicely.

I suggest that you download the PDF file with your web browser. At that point, clicking on the link should bring up the post and its associated photographs.

Thanks to everyone for the many good collections, help with sorting and identification, and your diligence in observing Covid-19 protocols. Thanks to Nina for her efforts at managing our limited participation forays this year. Careful juggling has been necessary to make sure we have no more participants than promised at any one foray, while considering participants’ expressed preferences for which specific forays they wanted to attend,

and avoiding unused “slots” when confirmed participants must change plans at the last minute. Thank to everyone for your patience, flexibility, and responsiveness to all the “back-and-forthing” that makes this work.

Finally, I have my fingers crossed that the links to *Mushroom Observer* and *iNaturalist* are “live” and get you to the intended collections. Please let me know how they work. And as always, please let me know of additions or corrections to the list.

It was great fun. Thank you. Stay safe. Hope to see you soon.

---

## HORSESHOE BEND PARK KINGSTON, NJ – SEPTEMBER 12, 2020

by John Burghardt

Horseshoe Bend was one of three municipal parks we visited in 2020. We decided to meet in the less developed part of the park in order to be well away from other people and close to the mushrooms. As we arrived on Sunday morning, a group of mostly young volunteers had already assembled and were preparing to set out to work on some of the trails. As we sorted and examined our finds after collecting for a couple of hours, several hikers stopped to inquire about what we were doing, look at the fungi, and offer encouragement. The area had received rain three days before the foray, so the woods were moist, and the day was cool. For the second week in a row, I never got more than a few hundred feet from the trailhead where we met and did our sorting. And for the second week in a row, we found and identified a lot of fungi. This week, we were lucky to have the help of two people who reduce the number of unknown fungi wherever they go. John Plischke and Garrett Taylor happened to be in our area and came to the foray. Both are expert identifiers who are often called upon to identify at regional and national forays. We always learn new mushrooms from them, and this time was no exception.

A PDF file, which is located at [www.njmyco.org/downloadables/hb2020.pdf](http://www.njmyco.org/downloadables/hb2020.pdf) contains the species list. As usual, the list is arranged alphabetically within “form groups” which are defined by similarities in the structure of the spore-bearing surface. In addition to the species name, the table gives the frequency of collections in past forays this year and over our nearly 40 years of keeping records of NJMA finds. I find this information useful in recognizing unusual collections and hope you will too.

Several participants have posted photos of specific collections on *iNaturalist* ([www.inaturalist.org](http://www.inaturalist.org)) or on *Mushroom Observer* ([www.mushroomobserver.org](http://www.mushroomobserver.org)). I have provided links in the table to specific postings from our foray. I think these are “live” (you can click on

them and be taken directly to the photos) and I tested one that worked. But in the past I have had them be “live” at first and then not. If this happens, I think you can copy the link out of the table and paste it into your web browser. I want to thank everyone who contributed photos: Liz Broderick (LB), Michael Gochfeld (MG), Maricel Patino (MP), and Garrett Taylor (GT).

Thanks to everyone for the many excellent collections and all your effort in sorting and identifying. We love it when newcomers dig in, look carefully at their collections, and work to assign names. Even better is when many, sharp-eyed, experienced identifiers are present, circulating among the newcomers, and providing feedback on their IDs.

Finally, thanks to Nina for organizing the foray and working to make sure that every member who wants to attend forays this summer gets a chance, and that everyone is safe. We look forward to returning next season to our longstanding practice of welcoming all comers to any of our forays.

I hope to see you at another foray in the future.



## **WAWAYANDA STATE PARK HEWITT, NJ – SEPTEMBER 20, 2020**

by John Burghardt

Our foray at Wawayanda is always interesting, and this year was no exception. September 20<sup>th</sup> is the latest date at which we have held our Wawayanda foray. I was looking forward to seeing fall mushrooms out in force for the first time at Wawayanda.

A PDF file, located at [www.njmyco.org/downloadables/wawayanda2020.pdf](http://www.njmyco.org/downloadables/wawayanda2020.pdf), contains a preliminary list of our finds. I emphasize “preliminary” because I know work continues identifying what we found at Wawayanda, so this list is incomplete. As usual, the list is arranged alphabetically within “form groups” which are defined by similarities in the structure of the spore-bearing surface. In addition to the species name, the table gives the frequency of collections in past forays this year and over our nearly 40 years of keeping records of NJMA finds. I find this information useful in recognizing unusual collections and hope you will too. This list also includes an indicator (\*\*) to the left of each species that we collected at Wawayanda for the first time in 2020.

We saw many fall fungi, including species of gilled fungi in genera *Amanita*, *Armillaria*, *Clitocybe*, *Lactarius*,

and *Tricholoma*; polypores such as *Grifola* and *Laetiporus*; puffballs such as *Scleroderma*, *Lycoperdon*, *Calvatia*, and tooth fungi including *Hericium*, *Hydnellum* and *Sarcodon*. The identified species in these genera stood out to me as being a good representation of fungi that tend to appear in the fall, as opposed to those that fruit throughout our collecting season.

When we find a particular species in a particular location where we have not found it previously, I often wonder why we are recording this species here now but have not recorded it previously. Was it because: 1) the species has been there all along but we have visited the location when it was not fruiting, or 2) the species has been fruiting when we were there previously, but no one collected it, or 3) it was collected previously, but we collectively were not knowledgeable enough to identify it at the time? Since this was the first time we have visited Wawayanda in late September, I thought this might be an opportunity to gauge the extent to which my first hypothesis – we were at the location at the wrong time – might apply.

To gauge whether there were more fall species identified to species in the set of genera highlighted above, I compared the number of species new to the Wawayanda list (n=16) in the “fall genera” group listed above (n=33) to the number of identified species new to the Wawayanda list (n=18) in the remaining “non-fall” genera (n=61). Nearly 50 percent of the identified fall genera species were new (48 percent), compared to less than one third of the species identified in the non-fall genera (30 percent). So, yes, this does seem to confirm that visiting a location at different times of the fungi collecting season will increase our understanding of the diversity of the fungi in that location.

Thanks to everyone for the many good collections and your help in sorting and identifying. We greatly appreciate it when you provide data about your finds. Whether the fruiting body was on wood or on the ground, whether it was solitary, in a group, or clumped, and whether it had a discernible odor can be very important in assigning a name to the collection, or in allowing us to assess whether a name someone assigned is correct. I was reminded of the importance of doing this by my own failure at field documentation. When we got home, Nina found a small, sturdy gilled white fruiting body with a nipple on its cap in one of my plastic containers. I had not photographed it or noted any of these details in the field, so this one went back to the woods, un-named, unfortunately.

Thanks to Dorothy Smullen for providing the list of lichens at Wawayanda.

Finally, thanks to Nina, Maricel, Dorothy, and Keara for their efforts to help newcomers identify, and their continued work after the foray to identify our finds.

I hope to see many of you at another foray soon.



## CATTUS ISLAND COUNTY PARK TOMS RIVER, NJ – SEPTEMBER 27, 2020

by John Burghardt

Cattus Island was our second foray this year for which conditions had been dry leading up to it, and rain was forecast for “the day of”. I have learned over the years that dry conditions may reduce the number or alter the kinds of mushrooms we see and collect. But walking in the woods with people who want to find and learn about fungi is always interesting and productive no matter the conditions. The prospect of rain at the foray never bothers me, either: some of my most vivid memories from NJMA forays are of collecting and trying to identify in the rain. But Cattus and your sharp-eyed collecting brought in many interesting fungi. And the rain held off.

A PDF file, which is located at [www.njmyco.org/downloadables/cattus2020.pdf](http://www.njmyco.org/downloadables/cattus2020.pdf) contains the species list. The list is arranged alphabetically within “form groups” which are defined by similarities in the structure of the spore bearing surface (See *Mushrooms of the Northeastern United States and Eastern Canada* authored by Timothy J. Baroni.) In addition to the species name, the table gives the frequency of collections in past forays this year and over our nearly 40 years of keeping records of NJMA finds. I find this information useful in recognizing unusual collections and hope you will too.

We had a surprisingly strong showing of stalked fungi with gills and pores. I was especially glad to see so many Amanitas, because Rod and Mary Tulloss were at the foray. Rod has been working for years to sort out groups of fungi that I learned as *Amanita citrina*, *Amanita rubescens*, and *Amanita bisporigera*. These are all names of European taxa that have been applied to North American taxa since the 1850s, based on morphology and microscopic characteristics. Over the last 20+ years, genetic analysis has revealed that the European and North American collections to which these European names have been applied are distinct species. Moreover, many of the North American species carrying these names include “cryptic species” (that is, species not described by science). Our list for Cattus Island contains at least three formerly cryptic species that Rod and his colleagues have described and named as new: *Amanita sturgeonii* (a formerly cryptic species of *A. bisporigera*; *Amanita cornelihybrida*, a formerly cryptic species of *A. citrina*; and *Amanita aureo-subicula*, a formerly cryptic species of *A. rubescens*. You can find Rod’s descriptions at his website [www.amantaceae.org](http://www.amantaceae.org).

You may be surprised at the large number of Russula that appear on the list, given how many unnamed collections of Russula remained on the table (I was surprised!) Liz Broderick and I each took home some of the unnamed ones for further study, and we each were

able to assign a few more names. Home study of these things requires examining spores, and using *Keys to the Species of Russula in Northeastern North America* by Geoffrey Kibby and Raymond Fatto (April 1990). I think we lucked out and identified more than usual in this way, in part because many of the leftover collections were in very good shape, despite the dry conditions.

Thanks to everyone for the many excellent collections and all your effort in sorting and identifying. We love it when newcomers dig in, look carefully at their collections, and work to assign names. Most of you created tags for your collections, and some also assigned names (not always correct, but that’s fine and part of the process).

Finally, thanks to Maricel for the many IDs of the polypores, crust fungi, tooth fungi, and even some gilled fungi, and to Nina for organizing the foray and working to make sure that every member who wants to attend forays this summer gets a chance, and that everyone is safe.

---

## CHESTNUT BRANCH PARK MANTUA, NJ – OCTOBER 4, 2020

by John Burghardt

Chestnut Branch Park in Mantua Township is a municipal park in Gloucester County named for the Chestnut Branch, a small tributary of Mantua Creek. Mantua Creek flows into the Delaware River across from the Philadelphia International Airport, about eight miles as-the-crow-flies from the ravine where we did out collecting. The ravine harbors a wonderful diversity of hardwood trees, as well as some pines and other conifers. Rains during the week before our walk, and beautiful clear, mild weather on Sunday made for a very pleasant and productive foray.

A PDF file, which is located at [www.njmyco.org/downloadables/chestnut2020.pdf](http://www.njmyco.org/downloadables/chestnut2020.pdf) contains the preliminary species list. The list is arranged alphabetically within “form groups” which are defined by similarities in the structure of the spore-bearing surface of the fungus. In addition to the species name, the table gives the frequency of collections in previous forays this year and over our nearly 40 years of keeping records of NJMA finds. I find this information useful in recognizing unusual collections and hope you will, too.

One of the most plentiful fungi on the tables at Chestnut Branch were collections of the genus *Armillaria*. Best known of these, and much prized by collectors for the pot, was *Armillaria mellea*. Personally, I am not a great fan of these guys: They grow on or near living trees and obtain their nutrition from them. This weakens the trees and hastens their demise. But there is another fungus, *Entoloma abortivum*, that apparently attacks *Armillaria mellea* and some related *Armillaria* species. I was glad to see several collections of these Aborted Entolomas. I often wonder whether,

and to what extent, the *Entoloma abortivum* protects the trees that the *Armillaria* attacks.

*Entoloma abortivum* appears in two forms: 1) a normal looking, fairly nondescript *Entoloma* (cap is bald, grayish or brown; gills are gray to pinkish gray, slightly descending the stalk), and 2) a lumpy mass of fungal tissue, encased in a white covering. The second form contains hyphae (tissue absorbing energy from the substrate) of both *Entoloma abortivum* and *Armillaria mellea*. For a long time, scientists thought the *Armillaria* was parasitizing the *Entoloma*. More recent observations and culture studies have established that these roles are the reverse: the *Armillaria* is the host and the *Entoloma* is the parasite. For a fuller description and references to the research, see Michael Kuo's discussion of *E. abortivum* at mushroomexpert.com: [www.mushroomexpert.com/entoloma\\_abortivum.html](http://www.mushroomexpert.com/entoloma_abortivum.html).

We found both *Armillaria mellea* and the aborted form of *Entoloma abortivum* at Chestnut Branch Park in Gloucester County, and at Wawayanda State Park in Sussex County. We also reported *E. abortivum*, but not *A. mellea* at Horseshoe Bend Park. Finally, we found *Armillaria mellea* at three locations this year where we did not report *Entoloma abortivum*.

In closing, I want to thank everyone for the many good collections and the documentation of your finds. It is always rewarding to see newcomers looking closely at their finds, and comparing the feature of their specimen to the photos and descriptions in field guides. The more you do this and ask questions, the more we all learn.

Also, please let me know of errors or omission from the list. And stay safe. Hope to see you again soon, or perhaps next season, when, hopefully, we will be able to return to a less rigid format.

---

## **ESTELL MANOR PARK ESTELL MANOR, NJ – OCTOBER 10, 2020**

*by John Burghardt*

2020 is the third year we have forayed at Estell Manor Park, in the city of Estell Manor, NJ and administered by the Atlantic County Park system. The lands occupied by the park housed a glass works in the early 19<sup>th</sup> century, a munitions factory during World War I, and currently a Veterans Cemetery. This year was the first time we held our foray in the northern part of the park. The forests in this part of the park have had nearly a century to recover from this early industrial activity. Close to the South River, we had easy walking access to diverse habitats, including uplands, swamps, and river bottom lands.

Since our previous two forays at Estell Manor had been held near the Nature Center in the southern part of the park, Nina and I visited the site a few days before the foray to check out the new area where we would be meeting this year. It looked quite dry, and we did not see

a lot of fungi along the main road or parking areas. But, despite the lack of recent rain, the fungi were there and you found them!

A PDF file containing a preliminary list of our finds can be viewed by going to [www.njmyco.org/download-ables/estell2020](http://www.njmyco.org/download-ables/estell2020). I emphasize “preliminary” because I know work continues identifying what we found at Estell Manor. As usual, the list is arranged alphabetically within “form groups” which are defined by similarities in the structure of the spore-bearing surface of the fungi. In addition to the species name, the table gives the frequency of collections in past forays this year and over our nearly 40 years of keeping records of NJMA finds.

We saw many fungi that usually appear in the fall as well as many we see throughout the summer. A total of 123 taxa have been named, and some more will likely be identified. Especially noteworthy were the members of the family Hygrophoraceae – fungi in the genera *Cuphophyllus*, *Gliophorus*, *Humidicutis*, *Hygrocybe*, and *Hygrophorus*. Most of these are waxy caps. Many display vivid red, orange, or yellow colors on their caps, gills, and stems. Other notable fall fungi were the *Armillaria*, *Cortinarius*, *Tricholoma*, *Grifola*, *Lycoperdon*, and *Scleroderma* species on our list.

Thanks to everyone for the many good collections, help in sorting, and identifications. Special thanks to Elizabeth De Cicco and Jason Hafstad for collecting and identifying the lichens listed in the table.

Finally, thanks to Nina, Maricel, Igor, and Sue for their efforts to help newcomers identify and their continued work after the foray to identify our finds.

Please let me know of any additions or corrections to this list.

---

## **FOREST RESOURCE EDUCATION CENTER JACKSON, NJ – OCTOBER 17, 2020**

*by John Burghardt*

The Forest Resource Education Center (FREC) is a part of the New Jersey Department of Environmental Protection (DEP) Forest Service. FREC's goal is to educate the New Jersey public about our forest resources. Adjoining FREC is a nursery that provides tree stock to private landholders and the NJ Forest Service for reforestation projects. In a normal year, we would have participated in FREC's annual Fall Forestry Festival to inform the public about the role of fungi in the forest. Typically, we hold our foray at FREC a week or so after the Fall Festival in hopes that visitors to the festival will join us. We greatly appreciate FREC's support in allowing us to hold our foray this year with all its Covid-19 restrictions. We hope to return to a more normal participation in FREC's fall activities in 2021.

A PDF file, available at [www.njmyco.org/download-ables/frec2020.pdf](http://www.njmyco.org/download-ables/frec2020.pdf), contains a preliminary list of our



finds on October 17<sup>th</sup>. It is arranged alphabetically within “form groups”. These are defined by similarities in the structure of the spore bearing surface of the fungi. In addition to the species name, the table gives the frequency of collections in past forays this year and over the nearly 40 years NJMA has kept records of its finds. This week, I wanted to be more specific in highlighting which taxa are primarily found in the fall. I asked Nina which species on this list are primarily found from late September and later, and which are also found in summer and/or spring. As you can see, about half the taxa on this week’s list fall into the “primarily fall” category and half fall into the “fall-plus-spring-and/or-summer” category.

We were surprised that fewer collections came in this year than usual at FREC. Since the woods were moist from recent rains, we had expected to see a lot of fresh fungi. But fungi often surprise us by being there in bad conditions, or this week, by not being abundant in good conditions. Still we recorded at least 60 species and enjoyed having so many enthusiastic young people along for the walk.

Thanks to everyone for the many good collections, help in sorting, and identifications. We especially appreciate that so many of you looked at your collections, noted their features, compared their features with descriptions in the guidebooks, and attempted an identification.

Thanks to Maricel, Igor, Liz, Sue, Stef, and Paul for their efforts to identify what we found and help newcomers identify their finds, and to Nina for making all the arrangements.

Please let me know of any additions or corrections to this list.

## WELLS MILLS COUNTY PARK WARETOWN, NJ – OCTOBER 25, 2020

by John Burghardt

Wells Mill County Park, Ocean County, is a 900+ acre parcel of diverse Pine Barrens habitats. It is traversed by Oyster Creek, which has been dammed to create a small lake used for canoeing and fishing. On the western edge of the lake is a stand of Atlantic White Cedar. At a short distance from the flow of Oyster Creek and at slightly higher elevation are typical Pine Barrens upland pine/oak forests. A few hundred yards from the parking lot where we met are stands of mixed hardwoods and pines. These diverse habitats, within a short walk of the main parking area, always yield many interesting fungi. Even though rain began as we finished collecting, intensified as we were identifying our finds, and eventually chased us away a bit earlier than we would have liked, this year was no exception.

The PDF file containing a preliminary species list is at

[www.njmyco.org/downloadables/wellsmills2020.pdf](http://www.njmyco.org/downloadables/wellsmills2020.pdf). It is arranged alphabetically within “form groups”. These are defined by similarities in the spore bearing structures of the fungi. In addition to the species name, the table gives the frequency of collections in past forays this year and over the nearly 40 years NJMA has kept records of its finds.

We identified nearly 120 taxa (some tentatively, others only to genus), and we were unable to identify another 20 to 30 collections. Many of these unknowns were members of the genera *Cortinarius*, *Lactarius* or *Russula*, each of which include hundreds of species that are difficult to separate.

Thanks to everyone for the many good collections, help in sorting, identifications, and packing up quickly when we had to surrender to the rain. It was great to see so many attempts at identification from less experienced participants. Not all were correct, and that is fine. But quite a few were correct, and that is great.

Thanks to Maricel, Igor, Liz, Stef and Paul, and Aluen and Virginia for their efforts to identify what we found and helping newcomers with their finds, and to Nina for making the arrangements.

Please let me know of any additions or corrections to this list.

(more foray reports on [page 17](#))



### BYTES, BITS, & BITES TASTY LITTLE TIDBITS FROM OUR MEMBERS

Have you read something interesting concerning mushrooms or foraging? Send it to [njmabb@gmail.com](mailto:njmabb@gmail.com) and share with the rest of our members!

from the Editor:

Huitlacoche - Mexican fungal delicacy that makes corn taste like a mushroom:

<https://tinyurl.com/y64e9p68>

from Judy Glattstein:

Foraging on the West Coast and Canada:

<https://tinyurl.com/yygrzvbw>

from the Editor:

Five healthy dinners where mushrooms are the star:

<https://tinyurl.com/y2pssgkh>

from Sue McClary:

Infusing alcohol with mushrooms:

<https://tinyurl.com/y4qo3ye8>

from Judy Glattstein:

2019 Nobel banquet menu entree with mushrooms:

<https://tinyurl.com/sgbvnv>

(continues on [page 14](#))

## WHO'S IN A NAME?

### *Agaricus friesianus*

by John Dawson (eightieth in a series)

Christiaan Hendrik Persoon, subject of the seventyninth profile in this series, and Elias Magnus Fries are regarded as the two founders of mycological taxonomy. I have chosen *Agaricus friesianus*, a species first described in 2013, to stand as a representative of the host of fungi that have been and continue to be named in Fries's honor.

Fries's life paralleled that of his countryman Linnaeus in many respects: both were pastor's sons who were born in the Swedish province of Småland, both attended the Gymnasium in Växjö before commencing university study at Lund, both were pre-eminent systematists who struggled to make a living while slowly climbing the academic ladder, and both served many years as professors of botany at Uppsala, where they died almost exactly a century apart.<sup>1</sup>

In Fries's case, after graduating from the Gymnasium in 1811, and from Lund in 1814 with a master's of philosophy degree in botany, he served as a docent (unpaid lecturer) at Lund for five years before advancing to an adjunct position there in with a modest salary and then, in 1828, to an only marginally better-paid post as botanical demonstrator.<sup>2</sup> Only his father's support enabled him to survive such economic circumstances. Nevertheless, it was during those frugal years that Fries published the first two volumes of his three-volume *Systema Mycologicum*, the work that established his enduring fame and which, by decree of the International Botanical Congress in Stockholm in 1950, became the starting point for the scientific naming of all fungi except rusts, smuts and gasteromycetes.

It was not until 1835, three years after the final volume of *Systema Mycologicum* appeared, that Fries left Lund to become Bergström Professor at Uppsala — not of botany, but of applied economics! (According to the *Wikipedia* article on Fries, botany was added to the title of his position only in 1851, at which time he was also appointed director of the University's botanical garden.)



*Elias Magnus Fries*

Details of Fries's personal life are scanty in English sources, but it is reported<sup>3</sup> that his marriage to Christina Wieslander produced eight children, the eldest of whom, Theodor Magnus Fries, became a distinguished lichenologist and later held the same endowed chair at Uppsala that his father had. Two of Theodor Magnus's sons also became professors of botany.

In his fungal studies Elias Fries took up where Linnaeus had left off. Linnaeus had based his classification of plants on their reproductive parts — structures that were visible in flowering plants but that were hidden in ferns, bryophytes, fungi and algae, all of which were then considered to be plants. Linnaeus thus referred to the former as phanerogams (“visible marriages”), which he divided into 23 groups according to the number of “husbands” (stamens) and “wives” (pistils) their flowers possessed. The rest he lumped together into a single group that he called cryptogams (“hidden marriages”).

Throughout his life, Linnaeus cleaved to the Aristotelian view that nature could be comprehended through the exercise of pure logic, a belief reflected in his system of biological classification, which in some instances exhibited Procrustean tendencies. Fries, too, initially approached the classification of plants from a logical standpoint, believing, in accord with German romantic *Naturphilosophie*, that nature exhibited an “inner spirituality and unity,” and that its “way of separating...organisms into classes, orders, genera and species” must be in accord with human logic. Unlike Linnaeus, however, in his 1825 work *Systema orbis vegetabilis*, Fries divided the plant kingdom into just four primary groups, comprising the monocots, dicots, ferns and mosses, and algae and fungi, respectively. Each of those groups he then likewise divided into four subgroups.<sup>4</sup> Later, though, his views changed altogether, and he asserted that relationships among organisms could only be properly understood through meticulous observations in the field.

In addition to various other treatises on fungi, in 1831 Fries published a major work on lichens, *Lichen-*

(continues on [next page](#))

<sup>1</sup> Linnaeus was born 23 May 1707 and died 10 January 1778, while Fries was born in Femsjö 15 August 1794 and died 8 February 1878.

<sup>2</sup> These dates are given in the entry on Fries by Gunnar Eriksson in the *Dictionary of Scientific Biography* (the primary source for information in this profile) and in Dörfelt and Heklau's *Die Geschichte der Mycologie*. The contrary claims (given in *Wikipedia* and some other online sites) that Fries was immediately appointed as an Associate Professor at Lund upon his graduation from there and was promoted to Professor in 1824 seem dubious.

<sup>3</sup> In the *Wikipedia* article on Fries's son Theodor Magnus.

<sup>4</sup> Quoted and paraphrased from Eriksson's biographical entry on Fries, cited in footnote 2.



*ographia Europaea reformatata*, that described the distribution of all European lichens known at that time; and in 1835, he published *Flora Scania* on the flowering plants of Skåne, the southernmost province of Sweden.

In the 1830s, the availability of better microscopes enabled the discovery of fungal asci and basidia, marking the start of the modern classification of fungi, based on microscopic (and more recently, biochemical) characters. Consequently, at the higher levels Fries's fungal taxa, based entirely on gross morphological distinctions, have been discarded, and many of his genera have now also been modified or replaced. Nevertheless, his emphasis on spore color and such features as the structure of the spore-bearing surface of fungal fruiting bodies remain central to field identification of fungi.

Fries himself never appreciated the significance of microscopic characters for fungal taxonomy. Nor, after Darwin's *Origin of Species* appeared in 1859 (eighteen years before Fries's death), did he accede to the idea that natural selection is what drives biological evolution, though three decades earlier he had come to believe that evolution of species did occur. In his view, however, all species had always existed as distinct entities: they had evolved over time toward a greater state of perfection, but none had ever evolved from others.



## LONGEVITY OF TASTE AND TEXTURE OF WILD MUSHROOMS AFTER STORAGE (A COMPILATION OF FORTY YEARS OF EXPERIENCE)

by Margaret Lewis

*Editor's note: The following article is a reprint of a pamphlet written many years ago (in the 70s?) by Margaret Lewis (now deceased) of the Boston Mycological Club. Please be aware that many of the mentioned species names have changed (and have changed many times) since this article was first published. We have retained the names which Margaret used, but before taking any of these tips, be sure to seek out the newer names and latest edibility information of each and every species she mentions. Neither NJMA (or the BMC) accept any responsibility for outdated or incorrect edibility information. As always, use caution before consuming any wild mushroom!*

I fully expect to be laid low by all those mushroom cooks who think I've lost my taste buds, but this report is a result of forty years experimentation.

Influenced by members of the old guard (charter members of the B.M.C.) instructed by learned club associates, and trained to follow in the footsteps of our European born friends of splendid culinary art, I've learned a few tricks about preserving mushroom flavor. So will you. Neither seasoning nor recipes are mentioned. This records only the taste and texture when stored mushrooms are first removed from bottle, crock, jar, and freezer.

If you've had better luck I'll listen, but it's cheating if you sprinkle instant Imitation Mushroom Salt on a dish when no one is looking.

*Agaricus campestris*: The delicate taste of *Agaricus campestris* dissipates quickly. Freeze sautéed to avoid mushiness. Use within a few months. *Agaricus rodmani*, a large agaric, becomes rubbery in age, but much less so in canning. If your tongue tells you they're good, you're starving.

The bland, much-sought-for *Armillaria mellea*, is best considered as bulk for sauces. It cans and pickles well, lasting a year, and even much longer on the storage shelf. Some of its glutinous condition is lost in pickling or freezing after sautéing. They are crisp when drained and fried.

*Armillaria caligata* (*Tricholoma caligatum*) has far more texture, but its stronger flavor, short of a year, may run out and indeed becomes a little acrid if canned. (Canned means "hot-pack").

Boletes, with sweet and nutty flavors, retain their savory ways and are worth every minute spent saving them for winter use.

Sliced thin, most dry exceptionally well, though in a few years will produce that pungent odor and strong taste common to a great many mushrooms stored too long. Even *Boletus edulis* loses its famed aroma. Strangely. June's *Boletus scaber* (*Leccinum scabrum*) has more flavor than late summer's. Expect it to be excellent dried for a year, as is *B. aurantiacus*. Some boletes, when sautéed and frozen, stayed delectable even longer, but drying gives best results.

Of Boletes - *brevipes*, *chromapes*, *granulatus*, *indecisus*, *luteus*, and *rubropunctus* – all held flavor well. Not so *bicolor*. (*Suillus* understood for some species).

*Boletinus porosus* (*Gyrodon meruloides*), which may surprise you, when simmered and drained before sautéing and freezing, makes crusty, delicious strips when fried several months later. No mushiness!

*Calvatia* (*craniformis*, *cyathiformis*, *gigantea*) dried, either powdered or sliced, last a year, but are bland. Frozen and sautéed, a bit tasteless, they go in a year. They're tastiest in a sweet pickle, but disintegrate if kept a long while.

*Cantharellus cibarius* boiled to death, oversalted in crocks, dried to chalk, and frozen to a soggy state, have at last been plucked into the freezer uncooked (or barely sautéed) to emerge a year later in a far more satisfying state, with aroma rather elusive. In six months, the dried become too strong, the salted overpowering, the canned wishy-washy at once!

*Cantharellus umbonatus* (*Clitocybe umbonatus*) —

dried for soups and gravies keeps a year, if collected absolutely fresh. Canned, they're swiftly tasteless.

*Clavaria (Clavulina) cinerea* and *crinata* and *Clavaria flava (Ramaria flava)* sautéed and frozen, get stringy in short order, but the flavor's nice for six months at least, but needs zipping up.

*Clitocybe multiceps (Lyophyllum decastes)* Bless it, because of its firm tight caps, clustered growth and long keeping qualities. With not much flavor, it serves as a base for innumerable dishes, especially Italian. Though not of distinguishable flavor it keeps like fresh when canned. Pickled within an hour, stored in the refrigerator it still can be processed and kept a year.

*Clitopilus abortivus* - never dry, or it'll turn to permanent granite. Canned, it's spongy and falls apart. When sautéed and frozen, it's still somewhat soggy - Use up! But *Clitopilus prunulus* cans better. Shelf life is short.

*Collybia platyphylla (Tricholomopsis platyphylla)* is a waste of time to save, having neither body nor tang. Dried *Collybia radicata*, when reconstituted, has a nice flavor for many months, but *Collybia dryophila's* is elusive.

*Collybia velutipes (Flammulina velutipes)* is the choice one, lasting several years canned, (with deep color), but glutinous caps can become tasteless in a year. Pickled buttons are a good bet.

*Coprinus* demands quick action in the kitchen, but keep your fingers crossed. Count on the shaggy manes to make it, in either pickling or canning. If you have the magic touch, they'll also freeze, sautéed slightly or uncooked - but use before the year's out. They'll stay white too.

*Coprinus atramentarius*, dried, keeps awhile.

*Coprinus micaceus* is tricky, but frozen sautéed, can be saved if popped frozen into sauces and soups without getting into just ink.

*Cortinarius albobolaceus* and *obliquus* better be sliced and sautéed to make Duxelles sauce. Keep refrigerated a month. Flavor barely makes it, but with other bits and pieces from mild fungi, the Duxelles mixture is good.

*Craterellus cornucopioides*, frozen raw, keeps shape, flavor very slowly leaving at year's end. Sautéed and frozen, it's limp but tasty longer. Dried, it turns out mild!

*Hydnum caputursi (Hericium coralloides)* frozen sautéed, loses its lovely essence in a few months.

*Hydnum repandum (Dentinum repandum)* sliced thin, dries well and even smells inviting after one or two years, though only odor is left. Use crushed for spicy flavoring within a year.

*Hygrophorus* species are best dried, or sautéed and frozen if longer than six month's flavor is desired.

Canning dilutes taste, *H. fuliginosus* and *H. flavodiscus* are rewarding, but *H. pudorinus*, never! *H. praetensis* is especially good frozen, *H. hypthyeus*, dried.

*Hypolomas* are either delicate or of marked flavor. *Hypoloma incertum (Psathyrella candoleana or incerta)*, frozen, sautéed gently, keeps flavor a year. *H. sublateritium*, "ol' brick top", gets much attention, though flavor varies year to year, oft times because of habitat. Pickled buttons last, if you keep your fingers from jar. Canned, they stay a year and more some-times. With oil added before sealing, they seem to be more flavorful, make most excellent Italian sauces. Note - I keep canned bricktops in refrigerator (as they're used for demonstration purposes) where color remains vivid. Dried for use, they even taste good just chewing them. They're old within a year.

*Laccaria laccata's* pleasant, mild flavor when dried disappears in a few months. *Laccaria ochropurpurea*, sautéed and frozen, has more to it for six months.

*Lactarius hygrophoroides* (and *volemus*), so eagerly sought for the table, when sautéed and frozen, loses much of its flavorsome quality. It changes to either a very mild or too strong taste. When frozen uncooked, it looks fresh; thawed, it even toasts brown and crispy, but needs special seasoning to enhance it, lest a letdown.

*Hypomyces lactifluorum*, sautéed and frozen, get rubbery shortly. Pieces pickle well for a month; with celery crispness gone.

*Lepiota procera*, getting spicy when dried, lasts a year and a little longer, retaining flavor and sweetness when cooked. Too flabby for freezing or canning usually. *L. americana*, frozen and sautéed - use within six months. *L. acutesquamosa*, though abundant at times, should be passed up. How strong it gets in storage!

*Marasmius oreades* dries well, stays firm, loses mildness early. *M. alliatus (M. scorodonius)* dried, keeps its onion essence forever if kept in corked jar. Flavors soups and sauces.

*Morchella deliciosa (M. esculenta)*, almost forever good, do have their day. Broth made from any specimens tends to be delicious. Dried morels store long and well in covered jars; though some are chewy after reconstituting. Sautéed frozen, it's better than frozen raw, but the latter's broth has exquisite essence. Browned in chafing dish or baked stuffed in oven they stay tantalizing in aroma. I've never counted the time of their lasting quality.

*Mutinus caninus*, actually edible, has a cardboard flavor when cooked and the egg has an odd taste when canned. Should I have pickled it?

*Peziza aurantia (Aleuria aurantea)*, *Peziza badia*, *P. repanda*, dried carefully, have a nice crunchiness and



mild flavor when soaked for cooking. Age makes them smell strong, so chop and use in soups when fairly young.

*Auricularia auricula*, on the other hand, dries and retains its flavor better, for addition to Chinese dishes.

*Pholiota squarrosa*, sautéed and frozen, is a tasty, chewy bite. Try frying it partially thawed. *P. adiposa*, in drying, has no zest.

*Pleurotus ostreatus*, avidly sought, demands a tender state for canning. Though of little flavor, it's a splendid extender for dishes and lends itself to all kinds of cooking. Keeps well for a long, long time. In drying, it gets rather tough. Dry well before sautéing and freezing to avoid flabby texture when refrying. This applies to *P. sapidus*, too. *P. ulmarius*, a tougher species, is not as useful.

*Pleurotus serotinus* (*Panellus cornucopiae*) is not tasty when stored, but, peeled and simmered in salty water, it will lose that unpleasant winter taste when either canned or sautéed.

*Polyporus ovinus* (*Scutigera ovinus*) a tart tasting mushroom, does not improve in age, but goes in a marinade if used within a few days. *P. frondosus*, a favorite because it lasts a long time when canned or pickled, keeps its crispness, good texture and pleasant taste. Not good dried. If frozen sautéed, taste is indefinable. *Polyporus sulphureus* does not respond well to drying. If freezing, sauté to retain flavor, else salt it a little for later marinating hors d'oeuvres to be served within a few months, but cut into small pieces first. This velvety soft fungus' perfect state is in a rush to leave. Flavor won't last at all in canning.

*Russula delica*, sautéed frozen, gets peppery, stays firm and adds zip to a dish. Pickles well. *Russula virescens*, *crustosa*, *mariae*, though mild, dry well. *Russula emetica*, after a few simmerings, drained and almost dry, can be sautéed and frozen, but loses flavor at start.

*Sparassis crispa* stays crisp in canning – light flavor soon disappears. Good almost a year.

*Tremella foliacea*, dried, tastes a little like the seaweed dulce without salt. Dried easily, it darkens, but lightens when soaked for cooking. Pleasant taste, not too chewy. Sautéed and frozen, it soon takes on an odd flavor. Good about a year.

*Tricholoma equestre* (*T. flavovirens*) often has less flavor than *T. sejunctum* when frozen, sautéed and kept a year. *T. portentosum*, frozen sautéed, tasty a few months. *T. personatum* may be canned in bacon fat, an old fashioned but good way. When sautéed anew, the greasiness can be drained away. It goes better frozen, sautéed, but lasts best in a Duxelles preparation as does *T. nudum*, which should be used within a month.



## ROBERT H. PEABODY LIBRARY NOTES

by Jim Richards

Four new books were added to NJMA's Robert H. Peabody Library over the last couple of months and two are reviewed in this issue. (see [page 3](#) and [page 4](#))

I am looking to find members who would be interested in reviewing new books for *NJMA News*. The books are then added to the library and available to be borrowed by any member in good standing (meaning that your dues are paid and you don't have overdue books on loan from the library). Reviews are generally about 500 words in length (about one page of text in Word) and you would normally have about a month to review the book.

If you would like to be a reviewer, contact me ([njmalibrary@gmail.com](mailto:njmalibrary@gmail.com)) and let me know what your areas of interest are (*i.e.* field guides, technical books, cookbooks, wild foods, nature, etc.) You can get an idea of the range of books that have been reviewed in the past by looking at past newsletters or the library's online catalog, <https://www.librarycat.org/lib/njmabooks>.

The catalog is also the best place for you to look for books to borrow to read over the chilly months ahead. Or you can check the book reviews in the past issues of the newsletter available on our website (<https://www.njmyco.org/newsdownload.html>)

If you find books that are of interest contact me at [njmalibrary@gmail.com](mailto:njmalibrary@gmail.com) to make arrangements to have the books sent to you.

And now to the unpleasant stuff: There are still some members that have books that are long, long overdue. You know who you are! I have sent you a number of reminder emails and still the books have not been returned. The books were loaned to you in good faith that they would be returned in timely fashion. I know that COVID has been responsible for meetings and forays being cancelled, and that those are the normal places to return books. Email me at the above address and I will give you the mailing address for return of the books.



*Climacodon septentrionalis*

from Judy Glattstein:

Video: The poisonous mushroom Finnish people love to eat:

<https://tinyurl.com/y3vqgm9t>

---

from Sue McClary:

Canada allows psychedelic mushrooms for terminal patients:

<https://tinyurl.com/y4nqefl9>

---

from Sue McClary:

Role of fungi in early childhood dental health:

<https://tinyurl.com/yxfqf9gn>

---

from *The New York Times* via Judy Glattstein:

That Mushroom Motorcycle Jacket Will Never Go Out of Style:

<https://tinyurl.com/y5gkeq6h>

---

from Sue McClary:

Zombie cicadas:

<https://tinyurl.com/yyez5tcy>

---

from Sue McClary:

Sustainability role of fungi:

<https://tinyurl.com/y27dr7yf>

---

from *The New York Times* via Judy Glattstein:

Are Mushrooms the Future of Wellness?:

<https://tinyurl.com/y2j3cnpk>

---

from Sue McClary:

Fungi protect some forests from drought:

<https://tinyurl.com/y3hm9k27>

---

from the Editor:

The Climate Isn't Just Worsening Wildfires, It Can Hobble Forests' Ability to Recover:

<https://tinyurl.com/y35gfw09>

---

from Sue McClary:

Why the US mushroom industry is moving to Canada:

<https://tinyurl.com/yxx3noch>

---

from Judy Glattstein:

New Jerseyans are not alone in learning about mushrooms this year. We live in the mountains of North Carolina and have taken the opportunity during Covid to learn about mushroom foraging. I've purchased books and joined a Facebook NC mushroom group. My husband and I have gotten outside hiking more, and we have collected several species of delicious mushrooms. Teresa Blank, West Jefferson, N.C.



## "MUSHROOM DAY AT THE MINE" NOVEMBER 21, 2020

by Frank Kushnir and Nathaniel Whitmore

Join Group Growing and LocalMushrooms.com at the Sterling Hill Mining Museum in Ogdensburg, NJ on Saturday, November 21<sup>st</sup> from 12:00pm to 5:00pm for a day full of mushroom knowledge for beginners and advanced mushroom folk alike. There will be classes on mushroom identification, medicinal mushrooms and mushroom cultivation.

If you're new to identifying mushrooms, Jim Barg will be leading an introduction to mushroom identification class. Jim is a past president of NJMA and conducts such talks on a regular basis around New Jersey.

Nathaniel Whitmore, an herbalist at Worker Bee Community Acupuncture in Milford, PA, has been making medicinal mushroom extracts for years from wild-crafted medicinal mushrooms. He will be leading two lectures on medicinal mushrooms. His first lecture will be an introduction to medicinal mushrooms; the benefits, applications and preparations. For the second class, he will go further in depth on the properties of the three most common edible medicinals and their properties: oyster, shiitake and lion's mane.

While knowledge of medicinal mushrooms is widespread and rapidly growing into America's mainstream awareness, practical knowledge of medicinal mushrooms is still a bit vague to most Americans. Nathaniel will help to spread that practical knowledge.

Frank Kushnir, who is Cultivation Chair for NJMA, teaches mushroom cultivation and has set up over 15 mushroom farms through his separate social cause, Group Growing. He is an avid proponent of spreading the nutritional and medicinal values of the fungal kingdom at the local level. Frank will be teaching a workshop on at-home mushroom cultivation. Attendees will be able to inoculate an oyster mushroom fruiting block to bring home to watch, grow and harvest within a few weeks.

The Sterling Hill Mining Museum is located at 30 Plant Street in Ogdensburg, NJ 07439. Send an email to [Learn@LocalMushrooms.com](mailto:Learn@LocalMushrooms.com) to register and to receive a schedule and any updates. (see flyer on page 20)

Mushroom Day at the Mine is free, but donations are welcomed to cover expenses incurred in producing the event.

(LocalMushrooms.com will be commencing a cultivation collaboration and learning farm destination at the Sterling Hill Mine. For information about learning or helping at the facility, email [Help@LocalMushrooms.com](mailto:Help@LocalMushrooms.com).)

**Editor's note:** This event is *not* officially sanctioned by NJMA and should not be interpreted as a resumption of NJMA meetings or events which have been cancelled due to the pandemic. If you choose to attend, please wear a mask and practice safe social distancing.

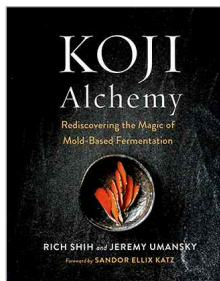




## BOOK REVIEW

# KOJI ALCHEMY

a review by Mallory O'Donnell



## *Koji Alchemy*

by Rich Shih and Jeremy Umansky

Chelsea Green Publishing (2020)  
352 pages

ISBN-13: 978-1603588683

The culinary world of the west has recently begun to take on a new mold : Koji (*Aspergillus oryzae* and related species). This excited embrace of a microscopic fungus is currently in vogue in great numbers amongst both cutting edge chefs and the more experimental fermentation enthusiasts. But this humble mold is hardly a new arrival on the gastronomical landscape. For millennia, it has been used in Asian cuisines, introduced by the Chinese and perfected to a high art by the Japanese. It is the fundamental fermentation agent at play in such common pantry items as shoyu (soy sauce), miso, sake and rice vinegar.

Rich Shih and Jeremy Umansky are two culinary mavericks that have embraced this ancient mold in startling and fresh new ways. I had the pleasure of learning how to make miso at a workshop conducted by Rich, and have followed them both for years on Instagram and other social media, watching with great delight as they twist and turn koji into exciting new uses for just about every food in the larder. Learning about koji as I did, by reading online and fragmentary sources in various Japanese or avant-garde cookbooks, it was often difficult to pierce the veil: Sure I understand you are using koji to do this, but how? In quite plain language, crisp and concise and most importantly engaging and encouraging, Shih and Umansky strip back the veil and reveal the how behind the seemingly magical transformations koji imparts to grains, beans, vegetables and even meats, seafood and dairy. Sure, there is some science here, but it is plainly explained. And yes, you will need to buy a piece of gear or three, even if you are already an avid fermenter.

*Koji Alchemy* is a book much like Sandor Katz' *The Art of Fermentation* (from the same publisher), in that it contains not so many recipes as it does techniques and processes. The goal here is for you to use koji in your own creative ways, not merely recreate specific applications. So beyond the overall approach to cultivating and using koji to inoculate various substrates, the authors outline classic iterations of koji (miso and other amino pastes, shoyu and other amino sauces, alcohol) that will be familiar to most of us, at least in their taste and culinary function. They also give clear directions on the

making of the liquid koji processes, both sweet and sour *amazake* and *shio* koji, two techniques that are likely unfamiliar to most of us but simple and useful for very quick applications requiring a short fermentation period rather than the often rather long wait of the amino and alcohol concoctions. Delving deeper, and using processes which were largely developed by the authors and others in the growing koji community, we learn about applying koji to substrates such as meat, dairy and vegetables. There is even an excellent chapter on sweet and baked goods – yes, koji can be wielded to enhance even the repertoire of the enthusiastic home baker.

Alongside these overviews are sidebars that tackle specific important subjects or detours along the koji highway- topics such as pH, the much-maligned MSG, dry curing with koji, and oxidation/rancidity in oils. The appendices are not your average afterthoughts- in this section is crucial information on food safety, as well as an excellent overview of amino development in foods and water activity and a quick reference ratio chart so handy I had to copy it out and pin it to my fridge. And, yes, there are recipes. Many of the hallowed staples of the koji community are here, such as Rich's classic Hot Kombucha Arnold Palmer, sunflower seed "douchi," yogurt miso hot sauce, amazake buttermilk bread and the soon-to-be ubiquitous koji cured egg yolk. Also covered are traditional applications such as fish sauce, meju (the base for various iterations of jang, Korean amino pastes), Kinzanji miso, various alcohol bases such as tapai (Indonesian) daqu and xiaoqu (Chinese), and kasuzuke, (vegetables pickled in sake lees).

It is furthest from my mind (or that of the authors) to suggest koji as a casual acquaintance to your kitchen, the book quietly shelved, the new pieces of culinary equipment shoved into a back corner alongside the juicer and the air fryer. Koji is immersive, enthusiastic, experimental, playful, demanding. Like all fungi, it is alive, breathing, changing. Its primary function is to deepen the umami of foods- the fifth taste of savory, earthy, meaty flavors present in nearly anything edible.

When you first begin collecting and cooking with wild mushrooms, you may have been driven by curiosity, fascination, the thrill of new knowledge, even hunger. The more you study and experience them, the more you begin to see them as living things, with their own qualities and idiosyncrasies. Koji is exactly like that, you will either succumb to its wiles or find yourself immune from them. It isn't for every home or even professional cook. But for the brave, you can do this-and this is the first, and really the only book that will allow you to comprehensively understand this amazing agent of culinary transformation. For those who want to challenge and enhance their foodways in a myriad of savory dimensions, this is your stargate.



# WELCOME TO ALL OF OUR NEW NJMA MEMBERS!

*We'd like to extend a warm welcome to the following members who joined us between July 28, 2020 and October 26, 2020.*

*We look forward to seeing you at lectures, forays, and other NJMA events once they resume! Happy 'shrooming!*

Frederick Acerra	Toms River, NJ	Louis Listo	East Brunswick, NJ
Patricia Albanese	Ramsey, NJ	Lowenbraun Law Firm, PLLC	Ocean Grove, NJ
Kevin Alexander	Franklinville, NJ	Carolyn Machida	Princeton, NJ
Liping An	Princeton, NJ	John Maj	Rahway, NJ
Leman Ceren Aralp	Westfield, NJ	Briana Maravich	Moorestown, NJ
Spenser Bartlebaugh	Deptfort, NJ	Marianna Martyn	Boonton, NJ
Joseph Begley	Elmwood Park, NY	Kimetha Matthews	Orange, NJ
Scott Bleeker	Fairfield, NJ	Jennifer May	Wallington, NJ
Natalya Bochman	Wayne, NJ	George McCloskey	Millville, NJ
Andrzej Bodyziak	Hewitt, NJ	Sharon McDermid	High Bridge, NJ
Benjamin Buckman	Manalapan, NJ	Jackie McGowan	Westville, NJ
Tulsi Byrne	Hoboken, NJ	Esther McKenna	Flemington, NJ
Melissa Cacioppo	Jersey City, NJ	Debbie Meola	Hackettstown, NJ
David Canfield	Dover, NJ	Irene Micek	Sewell, NJ
Peerapol Chiaranunt	New Brunswick, NJ	James Micek	Sewell, NJ
Choice Environmental Services	Freehold, NJ	Jessica Micek	Morristown, NJ
Joel Cochran	Ringwood, NJ	Raimund Miller	Oakland, NJ
Nicholas Compitello	Howell, NJ	Lyudmila Millerman	Denville, NJ
Rachel Constantine	Philadelphia, PA	Gabrielle A. Mistretta (Tumminello)	Island Heights, NJ
Frank Crocco	Hammonton, NJ	Steven Moll	East Norritown, PA
Brian Croke	Hoboken, NJ	Sean Moss	Annandale, NJ
Evan Crowley	Montclair, NJ	Svitlana Nedoszytko	Flemington, NJ
Howard Cumme	Matawan, NJ	Kitty Nguyen	Maplewood, NJ
Cathy Czerwinski	Clark, NJ	Laszlo Novak	Berkeley Heights, NJ
Sheronda Darling	Voorhees, NJ	Annette O'Mahoney	West Milford, NJ
Ken Davis	Jersey City, NJ	Dai Pan	Livingston, NJ
Ann DeCamp	Scotch Plains, NJ	Marianne Pane	Fair Haven, NJ
Joy DeFabrizio	Lebanon, NJ	Amy Parness	Montclair, NJ
Pablo Delafuente	Lake Hiawatha, NJ	Anna Paukova	Philadelphia, PA
Patricia DeMattia-Becker	Madison, NJ	Courtney Peek	Woodbine, NJ
Karin Deneka	Stewartville, NJ	Phillip & Robyn Pelligra	Hackettstown, NJ
Edmund Diggle, III	Haworth, NJ	Justin Pflanzler	Ewing, NJ
Patricia Dobson	Watchung, NJ	Edwin Portscher	Elmwood Park, NJ
Holly Dunitz	Garnerville, NY	Mintari Preston	Tenaflly, NJ
Michele Ellen	Metuchen, NJ	Igor Priven	Marlboro, NJ
Nicole Engel	Metuchen, NJ	Yasmin Qazilbash	Bordentown, NJ
Yuyang Fei	Hoboken, NJ	Jonathan Rinko	Robbinsville, NJ
Paul Foster	Audubon, NJ	Peter Rogers	Lebanon, NJ
James M. Furey	Butler, NJ	Leslie Rush	Morganville, NJ
William P. Gervasio	Liberty Corner, NJ	Karl Sattely	Glasser, NJ
Joseph Glazewski	Sea Bright, NJ	Mark Schott	Summit, NJ
Victoria Gonzalez	Wall, NJ	Sarah Shackleton	Princeton, NJ
Anthony Goodman	Philadelphia, PA	Eugene Shevchuk	Freehold, NJ
Natalia Graziano	Summit, NJ	Naomi Silverman	Egg Harbor Twp., NJ
Inessa Grinblat	Marlboro, NJ	Kathrynn C. Sleight	Flanders, NJ
Angelo Grincerri	Hammonton, NJ	Olivia Sprau	Morris Plains, NJ
Anthony Guido	Philadelphia, PA	Elizabeth Stockman	Princeton, NJ
James Haas	Toms River, NJ	Robert D. Straus	Pitman, NJ
Adrienne Haberl	Island Heights, NJ	Karen A. Sullivan	Flemington, NJ
Julia Hart	Rexford, NY	Desiree Tarantini	Flemington, NJ
Louise E. Hartman	Lambertville, NJ	Joanne Taylor	Lindenwold, NJ
Krista Haviland	Metuchen, NJ	David Taylor	Marlton, NJ
Andrea Hayes	Freehold, NJ	R. J. Testa	Wall, NJ
Vincent Hines	Belmar, NJ	Roman Teytelbaum	Fairlawn, NJ
James S. Holle	Brooklyn, NY	Matthew Trinidad	Denville, NJ
Eric J. Huntington	Wayne, NJ	Kevin Urban	Nutley, NJ
Christopher Idell	Martinsville, NJ	Arthur Veilleux	Belmar, NJ
Mr./Ms. Immesberger	Rumson, NJ	Sarah B. Vreeland	Maplewood, NJ
Milena Jacobs	Bedminster, NJ	Robert S. Wehling	Margate, NJ
Jonathan Jensen-Lynch	Notre-Dame-Du-Nord, QC	Mark Weinstein	Cape May Court House, NJ
Alexander D. Kane	Flemington, NJ	Scott Whittle	Cape May, NJ
Matthew Karmel	Basking Ridge, NJ	Kelly J. Winch	East Brunswick, NJ
Michelle Kim	Huntingdon Valley, PA	Ming Yang	Marlboro, NJ
Morgan Klum	Ringwood, NJ	Tat M. Yuen	Old Bridge, NJ
Brian J. Lee	West New York, NJ	Casey Zacney	Philadelphia, PA
Karyn Leibovitz	Philadelphia, PA	Karen Zhong	Plainsboro, NJ
Travis J. Limper	Brick, NJ	Ronit Zilberboim	Annandale, NJ



## BELLEPLAIN STATE FOREST WOODBINE, NJ – NOVEMBER 1, 2020

by John Burghardt

The foray PDF, which is at [www.njmyco.org/downloadables/belleplain2020.pdf](http://www.njmyco.org/downloadables/belleplain2020.pdf) contains a preliminary list of our finds. It is arranged alphabetically within “form groups”. These are defined by similarities in the structure of the spore bearing surface of the fungi. In addition to the species name, the table gives the frequency of collections in past forays this year and over the nearly 40 years NJMA has kept records of its finds.

In spite of the steady rain, we found a good assortment of late fall fungi. The mycorrhizal fungi are beginning to shut down for the winter, but many continue to fruit in southern New Jersey. See the many *Amanita*, *Cortinarius*, *Laccaria*, *Lactarius*, *Russula*, *Tricholoma*, and *Suillus* that were collected. Based on our experience collecting year round in Burlington County, I’m guessing there will continue to be a surprising number of interesting mycorrhizal fungi through the end of December. After that, keep looking. Fresh material will pop up with warmer temperatures, rain, and even when you least expect it. Don’t be afraid of polypores, crusts, jellies, and ascomycetes – anything fungal that appears on wood. Keep looking and post your finds on the NJMA Facebook page and show them at our weekly identification meetings held via Zoom on Tuesdays.

I am constantly surprised at the way interesting, unusual fungi appear when conditions are less than ideal. It happened at Belleplain again. Here are brief descriptions of four unusual finds from the foray:

*Amanita jakeslandingensis*: Igor visited a plantation of pines on Jakes Landing Road to look for *Amanita phalloides*, which has been documented through DNA tests to be growing at Jakes Landing, although they have long been thought to be an exclusively European species. Igor did not find *Amanita phalloides*, but returned with a collection of *Amanita jakeslandingensis* (*nom. prov.*) the “Jakes Landing Ringless Amanita”. This was described by Rod E. Tulloss from collections that Rod made at Jakes Landing in 2006 plus collections of an undescribed species sent to him from Wisconsin.

Rod’s website has a description and photos at: <http://www.amanitaceae.org/?Amanita%20jakeslandingensis>.

*Cortinarius decipiens*. NJMA has recorded this taxon just twice, first at the foray at Belleplain State Park in 2016, and again last Sunday. This beautiful “Sepia webcap” appears to be quite unusual. A Google search didn’t reveal much, but *Mushroom Observer* has seven observations: <https://tinyurl.com/yym7rxuy>. Nina identified this both times, and has dried this new spec-

imen, so we can place it in the NJMA Herbarium at Rutgers and have DNA analysis done on it.

*Hygrocybe punicea*. This is a relatively large member of family Hygrophoraceae. It is a robust fruitbody with orange, red, and yellow tones on its cap, gills, and stem. Luke collected and identified it. We have previously collected this taxon at Rancocas State Park (2017), Belleplain and Estell Manor (2018) and Stephens State Park in Warren County (2019). Here is a link to the many collections posted to *Mushroom Observer*: <https://tinyurl.com/y3mpbfnl>.

*Russula subvariata*. When I first saw this collection on the table, I thought it was a *Russula variata*. This species is easy to identify because it has many gills that fork and fork again from the stipe to the cap margin, and the cap color is extremely variable (hence the name “variata” or variable). But something wasn’t quite right – there were not many multiple forking gills, but only a few, and the skin of the cap would not peel although the cap skin of *Russula variata* peels about half-way to the center of the cap. I took the specimen home to look at spores, which definitely did not match *Russula variata*. As I searched for an alternative, *Russula subvariata* (whose name means “almost variata”) was a good fit. Unfortunately, this has been recorded only rarely since it was originally described by William A Murrill from Florida in 1945. So I had no contemporary description and the only pictures I could find were of dried herbarium specimens. We preserved this specimen for the herbarium and DNA analysis.

Thanks to everyone for your enthusiasm to collect and then stay to sort and identify your finds on a wet, chilly Sunday afternoon. We had a lot of soggy mushrooms. But, as always, there was a lot to look at and learn, despite the conditions. Keep going to the woods – some fungi will always be fruiting. And stay in touch through the [NJMA Facebook page](#) and our weekly virtual ID session via Zoom (check your email for notices).

Please let me know of any additions or corrections to this list. I hope we can go back to a more normal way of operating by early next summer. But even if not, I hope to see you in 2021. All the best!



*Amanita jakeslandingensis* from Belleplain

PHOTO BY NINA BURGHARDT

# "NORTH AMERICAN MYCOFLORA PROJECT" IS NOW CALLED THE "FUNGAL DIVERSITY SURVEY" (FunDis)

Reprinted from *LI Sporeprint*, newsletter of the Long Island Mycological Club, Autumn 2020

The original title reflected the early 20<sup>th</sup> century publication by the New York Botanical Garden of *North American Flora*, a 52 volume series, of which volumes two to ten dealt with fungi, and whose keys and descriptions remain useful today. Since the term "mycoflora" has gone out of fashion for its reliance on a term reflecting the discarded theory that fungi belong in the plant kingdom, the project's title has been changed to "Fungal Diversity Survey" (or FunDis for short), which may have its own shortcomings. There is, unfortunately, a pre-existing "fundis" online entity, financial in nature, which pops up if you google that term alone. So be sure to enter "fundis.org" in the URL box.

However, the changes are more than skin deep. The thinking seems to be that many prospective amateur mushroom lovers are intimidated by what is perceived to be excessively stringent demands upon contributors, and that what is a four-tier system with level 1 consisting of a "large base of citizen scientists doing basic field photo-documentation of fungi." These observations are to be posted to a public database, e.g. *iNaturalist*, along with geo-references and other metadata such as habitat, substrate, odor and taste, etc. Lab metadata such as chemical tests and microphotos are additional options.

In as much as few contributors are providing such a level of detail now, it is hard to imagine that this is much of a relief from the "stringent demands" that are now said to exist. Nevertheless, the hope is to achieve observational numbers comparable to the crowd-sourced *EBird* app, which receives 1 million observations per year. This is unlikely. If we compare the number of mushroomers who belong to clubs nationwide, it is but a small fraction of birders who are members of the National Audubon Society (600,000), while 60 million US birdwatchers is the Fish & Wildlife Service estimate. The inescapable fact is that birding is widely popular, while mushroom study, despite recent growth, remains a fringe activity.

Level 2 would consist of contributors who obtain DNA sequences from a lab and interpret the results to obtain a species name. Level 5 participants preserve dried specimens and deposit them in "fungaria". ("Herbaria" is now a deprecated term) Level 4 consists of "super users" who sequence DNA in home labs, edit the results, build phylogenetic trees, and instruct others in these procedures. The hope is to achieve 100,000 Level 1 participants, mostly from young people. This is ambitious.

Other proposed changes are a greater focus on conser-

vation of fungi, and making low cost, high volume sequencing accessible to all. Previously sequencing was carried out both by home labs and several academic centers, with less than optimal results. (Judging from LIMC's experience, failure rate was high.) Accordingly, sequencing has been halted while a new partner is being tested: BOLD, the Barcode of Life Data System, based at the Center for Biodiversity Genomics at the University of Guelph, Ontario. They have shown the ability to process high volume at low cost and also often-improved GenBank submission.

Presently, registered FunDis projects can purchase sequencing services at \$15 each. A new set of grants will be made available to existing projects, and LIMC has applied. However, the new protocol now utilizes only *iNaturalist* and *Mushroom Observer*, *Mycportal* having been dropped. Since this was the online website which we used, some revision will be required to continue to participate.

FunDis receives funding from several sources, e.g. the National Science Foundation, NAMA, and MSA, but is run primarily by volunteers, both professionals and lay persons. Thus far, 5,000 specimens have been sequenced, including some rare and undescribed species. It is unclear how many have been deposited in fungaria. The BOLD project is just getting underway, so if you are curious regarding the results of individual projects (such as our Mycoflora of Long Island) they may be found at <https://mycomap.com/>.

To learn more about this project, access <https://fundis.org>. The site contains a free downloadable phylogeny poster which shows the evolutionary relationship of 256 common species to each other. It is available under the "Shop" tab, which also sells such merchandise as FunDis T-shirts and tote bags to help support the organization, and can enable you to look "cool" at the next foray.



## It's time to RENEW YOUR MEMBERSHIP

Visit [www.njmyco.org/membership.html](http://www.njmyco.org/membership.html) to renew online,  
or mail your renewal check (payable to NJMA) to:

NJMA Membership  
c/o Igor Safonov  
115 East Kings Highway, Unit #348  
Maple Shade, NJ 08052-3478

Note: If you just joined NJMA after July 1, 2020,  
your membership does not need to be renewed this year.



# VIRTUAL MUSHROOM TALKS ON YOUTUBE

by Greg Marley, reprinted from *Mainely Mushrooms*, newsletter of the Maine Mycological Society, Volume 36, Number 4, October-December 2020

As winter edged into spring this year, and we were all wondering if we would ever get to see each other for mushrooming in person. I turned some of my anxiety toward positivity and decided to offer some virtual mushroom talks, that are now available for viewing through the magic of YouTube.

Here are five talks by Greg Marley delivered and recorded so far. Click on the blue URL to watch:

## **Mushroom Foraging in Maine and New England: Trends, Favorites, and Stories**

<https://www.youtube.com/watch?v=qvByXkMm0nU>

Mushrooming has taken hold across Maine and the US as people flock to the forest and fields, chasing the elusive fantastic fungi. This talk will report on the results of a survey of mushroomers in the Northeast.

What is the favorite mushroom for eating and how many mushrooms are on your list? It includes great information on learning needs and some mycological missteps.

## **Wild Mushrooming in Maine; The Season Ahead**

<https://www.youtube.com/watch?v=GwvII8mdTTk>

This is the beginning of the mushrooming season in Maine; time to dust your basket, get out the field guide and the tick-repellent clothing, and head back into the woods.

Join veteran mushroom forager and local expert Greg Marley on a tour of the best edible mushrooms commonly found in Maine. Marley will also address the mushrooms responsible for the increase in mushroom poisonings in New England.

## **Foraging for Mushrooms: Know Your Toxic Species**

<https://www.youtube.com/watch?v=UJ2yNVNI-CI>

There is a surging interest in wild mushrooms and foraging for edibles. Maine's abundant mushrooms offer a supply of locally sourced, tasty food. Many people are taking to the woods in search of edible mushrooms to eat and share with their families.

Unfortunately, The Northern New England Poison Center has seen a corresponding increase in calls involving poisonous mushrooms. Anyone collecting mushrooms for food must learn the toxic species with the same enthusiasm as the edible ones. This presentation will explore Maine's poisonous mushrooms and the common edible ones that resemble them.

## **Integrating Medicinal Mushrooms into Your Life**

[https://www.youtube.com/watch?v=xCq8uWBc038&has\\_verified=1](https://www.youtube.com/watch?v=xCq8uWBc038&has_verified=1)

This talk explores the common medicinal mushrooms as well as suggestions for integrating them into your diet and life. Several of these mushrooms are excellent edibles in their own right. This will be a virtual talk loaded with beautiful mushroom photographs and will address psychedelic mushrooms from a health benefit viewpoint.

## **Foraging for Edible Mushrooms; Starting with a Foolproof Few for your Area**

[https://www.youtube.com/watch?v=uyOYs3zA\\_X8](https://www.youtube.com/watch?v=uyOYs3zA_X8)

Collecting and eating wild mushrooms is an intimidating prospect for the beginner. There are so many different mushrooms and some of them are devilishly difficult to tell apart. And some of them are poisonous, a few dangerously toxic. But there are a number of mushrooms that are great edibles, easily identified and without toxic look-alikes, and they may provide you with all the mushrooms you may ever want! Join mushrooming author and teacher Greg Marley for a virtual talk devoted to some common "fool-proof" mushrooms found in the Northeastern US. This talk will be especially valuable for someone who is just starting out or wants to learn mushrooming.

## **Mushrooms in Maine: Good, Bad and Beautiful**

<https://www.youtube.com/watch?v=lnqa5swq-Ok&feature=youtu.be>

An online talk by David Porter, recorded on September 17<sup>th</sup>, 2020.

In recent years, mushroom fungi have garnered increased recognition of their beneficial role in forest ecology. Mushrooms may be decomposers, while others cooperate with trees for mutual benefit and communication. Interest in gathering wild foods has popularized foraging for edible mushrooms as well as the importance of recognizing those that may be poisonous. Natural history and edibility aside, mushrooms are organisms of remarkable beauty – often underappreciated. David Porter shares personal observations and scientific information in this illustrated talk to stimulate your curiosity and lower your gaze during your walk in the woods.



**GROUP GROWING**  
AND  
**LOCALMUSHROOMS.COM**

PRESENT

# **MUSHROOM DAY AT THE MINE**

**SATURDAY, NOVEMBER 21, 2020**

**12:00PM - 5:00PM**

**INCREASE YOUR MUSHROOM SMARTS!**

Featuring talks by:

**NATHANIEL WHITMORE**

"An Introduction to Medicinal Mushrooms"  
"The Three Most Common Edible Medicinals"

**FRANK KUSHNIR**

"At-Home Mushroom Cultivation"  
Take home a kit to grow your own oysters!

**JIM BARG**

"Introduction to Mushroom Identification"

**FREE TO ATTEND**  
(donations are welcome)

Registration and information:  
**Learn@LocalMushrooms.com**

And don't forget!  
Wear a mask and don't forget social distancing!



30 Plant Street  
Ogdensburg, NJ 07439