

NJMA NEWS

THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION
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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!



Dacrymyces palmatus

A bright orange oasis when few other fungi are fruiting, this jelly fungus is found on decaying conifer wood (often hemlock in our area). It's commonly confused with *Tremella mesenterica*, which is yellower and is parasitic on wood-saprobic fungi such as *Stereum ostrea*. It has white mycelia which are visible at the base when it's removed from the wood. The two aren't related despite their very similar appearance. It's considered edible, but has no flavor.

PHOTO BY JIM BARG

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INCOMING PRESIDENT'S MESSAGE

Greetings fellow mycophiles, and welcome to 2018!

I would like to start out my first message as NJMA president by expressing my gratitude to the New Jersey Mycological Association. I joined the club in 2011 with a small amount of knowledge about a few edibles that I like to hunt and found myself learning new mushrooms at a rate that I had never imagined possible. What I was learning in one season with the help of experienced mushroomers was equivalent to years of book learning on my own. So I start out my term by saying thank you to all of the dedicated club members that took the time to welcome me into what is often considered the secretive and hard-to-access world of mushroom hunting.

NJMA is a large club, with lots of experienced members who have a diverse range of mycological interest; some concentrate on edible mushrooms, others in taxonomy and systematics, medicinals, cultivation or mushroom arts. Many of us have multiple interests within the mushroom realm, often starting out with but a single interest and coming to realize that we enjoy other aspects of mycology as well. I started out strictly interested in foraging for food (and still very much enjoy that) but soon learned that I love taxonomy and ecology just as much. I think that what I really love is to learn about mushrooms, and that is what NJMA has really offered to me: the opportunity to learn about the diverse world of mushrooms with experienced people who freely share their knowledge. So as I step into the role of president, my primary goal is to form an agenda that helps people learn about mushrooms, whatever their particular interest is.

A bit about the agenda for the next two years: I will work to make sure that NJMA continues to offer a wide range of activities to satisfy everybody's myco-urges: mycophagy, classroom education sessions, social functions, forays in the field and a variety of lectures.

In 2018, I hope to expand the work that we already do with macro-fungal taxonomy through an exciting program; the North American Mycoflora Project. In brief, this is a collaboration between professional mycologist and citizen scientist with the goal of identifying and mapping the macrofungi of North America. Through this project, we will have the opportunity to delve a little deeper into the science of mycology, perhaps learn some new skills and help to contribute to the overall knowledge of fungal ecology. You can learn more about this project at <http://mycoflora.org/about/overview> and you can expect to hear more about this project in the months to come.

In 2019, NJMA will be one of the hosting clubs for the Northeast Mycological Federation Foray and we are very

close to securing the site. At my very first NJMA function I was excitedly told about the NEMF foray by our president and have been an enthusiastic NEMF attendee ever since. Needless to say, 2019 will be a busy year for the club, as this foray often draws upwards of 250 people from all over the country (as well as the globe) for four days of foraging, educational lectures and classes, mycophagy, taxonomy, crafts and socializing. I am very excited that our club will be hosting the 2019 foray and I invite every NJMA member to get involved and help make 2019 something really special. Our Vice President, Frank Marra, is the NEMF Foray Chair and will be leading the effort so please reach out to him (marraman1@verizon.net) or myself to get involved.

Please let me know if there is something that you would like NJMA to offer or if there is something that you would like to do within NJMA. Our club is a volunteer-based club and is only as good as the members who are willing to pitch in and help out. See you all at our next event!

– Luke Smithson
President, New Jersey Mycological Association
mycofreak74@gmail.com



OUTGOING PRESIDENT'S MESSAGE

This is my final President's Message. I will begin by thanking you for the privilege of serving as your president for these last two years.

Our forays early this summer brought exceptional numbers and diversity of fungi and many people eager to learn about them. As abundant moisture in July and August gave way to drier conditions in late September and early October, people kept coming to our forays, finding diverse fungi, and taking great interest in learning about and sharing their knowledge of our finds. I am especially gratified to see so many members helping with sorting, putting names to their finds, and most importantly, sharing their knowledge and enthusiasm with strangers completely new to mushrooming.

Thanks to Nina Burghardt, who organizes the forays, obtains permissions, and recruits leaders. Thanks also to those members and nonmembers who have attended, collected fungi, and asked good questions. Special thanks to our less-experienced identifiers who have attended week after week and helped so much with sorting and identifying fungi, and, most importantly, making newcomers feel welcome.

We have been fortunate this season to have a team of young scientists from Keane University attending many of our forays. Dr. Maria Shumskaya, Assistant Professor of Biology at Keane, and three of her students are conducting a study of wood decay fungi from sites in New Jersey. They have made collections at several of our forays. They photograph, preserve, and will extract



EDITOR'S NOTES

and analyze DNA from each of these collections. They post pictures of each collection on www.INaturalist.org. We have been able to help them assign names to only a small fraction of the several hundred collections they have made. Even when we observe many of these nondescript wood-dwelling fungi, we often leave them in the woods because we will not be able to identify them. So it is wonderful to have foray participants dedicated to collecting these taxa that most of us ignore. And it's even better to have some hope that their analysis may eventually yield names for some nondescript, often ignored crusts and polypores.

Fungus Fest this year fell just when conditions became dry (and quite warm for mid-September). We worried that many people who might usually attend Fungus Fest would no longer be thinking "mushrooms" because of the dryness. Indeed, fewer mushrooms than usual appeared on our tables. But Fungus Fest is the only occasion when all of the diverse interests in fungi represented across NJMA members come together in one place at the same time. So, despite the less-than-perfect conditions for fungi, there were many engaging displays representing the varied interests and talents of our members. We appeared to have a steady stream of visitors who engaged with our members and stayed a long time. Thanks to everyone who helped make this year's Fungus Fest so successful. Special thanks to Liz Broderick, chair of Fungus Fest, for all her work to make sure everyone had an interesting assignment and all tasks were covered. Liz is one of the most skilled "herders of cats" that I know. Special thanks also to Phil Layton for building, assembling, disassembling, and storing-until-next-year, the lightweight display frames that allow us to convert several everyday rooms into a "fungus festival".

Finally, I want to acknowledge the important, behind the scenes contributions of several individuals. Editor, Jim Richards, and Art Director, Jim Barg, bring our newsletter to publication every other month, all year. Igor Safonov keeps our financial records (as Treasurer) and membership records (as Membership chair). Nancy Addotta coordinates outreach efforts, finding people to participate in specific events and communicating with organizations that hold events. Virginia Tomat organizes the Holiday Party and Jim Barg organizes the Photo Contest. Thanks to all for your important contributions to the club.

– John Burghardt

Outgoing President, New Jersey Mycological Association
609-651-2728

I must apologize for getting your newsletter to you late (basically missing the last issue, which would have been Vol. 47-6). I will not go into details about the reasons for the delay since many of you already know what they are and the rest of you probably could care less. I can only hope that now that 2017 is over, we will be back on schedule.

If you have articles, announcements, reviews, etc., remember that the deadline for your submissions is the tenth of even-numbered months.

I would like to thank our many members who have contributed to *NJMA News* and encourage more of you to join that illustrious group.

I am looking forward to 2018 and working with our new slate of officers, who were elected at the Annual Members Meeting in November:

Luke Smithson, President
Frank Marra, Vice-President
Igor Safonov, Treasurer
Stephanie Bierman, Secretary

and also Liz Broderick, who was elected to a five-year term as trustee and is the most recent addition to the Board of Directors.

I would like to take this opportunity to thank John Burghardt, our retiring president, for making my job much easier for the last two years. I anticipate getting a lot of articles from him as he gets a chance to concentrate on his interest in fungal distribution in New Jersey. We are a small state, but we have a great variety of habitats as he touched upon in his summary of the 2017 Foray Finds (*see page 19*).

Let's all concentrate of getting the right amount of rain and the right temperatures at the right time of the year to produce bumper crops of fascinating fungi (not really that much to ask for, right?)

Happy fungus-filled 2018!

– Jim Richards

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.

Visit the NJMA
Discussion Group



facebook

<http://tinyurl.com/jjualgz>

**AT OUR JANUARY 7TH 2018 MEETING:
NJMA MEMBER PROJECTS**

by John Burghardt

To celebrate the New Year, we will highlight three projects of our members at our January meeting. The meeting will start at 2:00 PM on January 7, 2018 at Frelinghuysen Arboretum in Morristown, NJ. See images of both familiar and unusual fungi, hear about different efforts to document the fungi of New Jersey, and how to get involved.

- **Dorothy Smullen** will present her casual study for two locations: One an upland area and the other a lowland habitat. Over many years, Dorothy has recorded species with photographs for New Jersey Audubon Society's Scherman Hoffman Sanctuary (Bernardsville, NJ) and also for The Great Swamp National Wildlife Refuge. Her study was not in regular visits, but when she was there usually for other reasons, she would grab her camera to record the species. Dorothy has albums and spread sheets, and would welcome NJMA members to revitalize her study.

- **Luke Smithson** will introduce Mycoflora 2.0. The Mycoflora Project is an ambitious project to more thoroughly document the fungi of North America. In Mycoflora 2.0, professional mycologists are collaborating with amateur mycological societies to document North American macrofungi through photographs, genetic sequencing of specimens, and deposit of dried specimens to herbaria around the country. This represents a wonderful opportunity for NJMA.

- **NJMA identifiers** will present and discuss photographs of about 20 collections made at NJMA forays in 2017. The specimens are special because each one found its way from the sorting tables to the Eugene Varney and Raymond Fatto Herbarium at Rutgers Chrysler Herbarium, and each is new to the NJMA cumulative species list.

We hope you will join us to greet our new NJMA officers and the 2018 mushroom season.



**ARE YOU DRAWN TO
DRAWING MUSHROOMS?**

We are always interested in receiving accurate hand drawings, sketches, or artwork in any variety of media to grace our pages. While we cannot guarantee that your work will be published, we do file each submission and consider it for use either in conjunction with specific articles or for use as backgrounds or supplemental art when needed. You retain your copyrights and you'll be credited in all cases.

Contact our Art Director Jim Barg at jimbarg@bssmedia.com for more information or to submit your work.

**AT OUR FEBRUARY 11TH MEETING:
MYCOPHAGY AND OUR
ANNUAL MYCO-AUCTION**

Please join the New Jersey Mycological Association for our annual Mycophagy Meeting as Luke Smithson and Jim Richards team up to cook a variety of mushroom dishes. We are digging into our recipe vaults to find recipes that showcase maximum mushroom flavors with a variety of cooking methods. Our annual myco-auction will be held throughout, with proceeds benefiting NJMA club activities.

Mycophagy will be held on Sunday, February 11 from 1:30pm to 5:30pm at the Unitarian Society at 176 Tices Lane, East Brunswick, NJ 08816.

This is a members-only event, so don't forget to renew your membership. See you there!



**...AND AT OUR MARCH 11TH MEETING:
DR. JOAN W. BENNETT
"MYCOLOGISTS: WAKE UP AND SMELL THE FUNGI"**

by John Burghardt

The speaker at our March 11 meeting will be Dr. Joan W. Bennett, Distinguished Professor of Plant Biology and Pathology at Rutgers University. Her talk will be "Mycologists: Wake Up and Smell the Fungi." Learn how the molds from Hurricane Katrina and similar flooding events produce such horrible odors through organic compounds released as gas. Dr. Bennett will also tell us about her recent research seeking to understand whether these volatile organic compounds, released by fungi, are toxic. We will learn how scientists are studying the interactions of fungi, animals, and plants.



**IT'S TIME TO
RENEW
Your
NJMA
MEMBERSHIP**

It's simple! Just [click here to renew](#) your membership online, or mail in your dues payment to the Treasurer (see [page 1](#)).

If you choose not to renew, this will be the last issue of *NJMA News* that you'll receive.

NAMA NORTHWOODS FORAY

A report by Nina Burghardt

For 2017, the North American Mycological Association (NAMA) Annual Foray was held in Cable, Wisconsin. Cable is located in the Northwoods, which resembles the Adirondacks in New York. It is an interesting blend of hardwoods (with birch being one of the dominant trees) and conifers (with spruce being one of the dominant trees).

The woods are filled with red bunchberries and fragrant sweet fern; already brown from a light frost. The woods seem so much more hospitable than those in New Jersey, that are often full of Cat-briar, Barberry, Rose bushes and all sorts of invasive plants. The cold winters probably keep the invaders at bay.



PHOTO BY NINA BURGHARDT

Lakewood Resort lake

There are bogs and fens created by depressions left by the melting glaciers of the last ice age. Bogs are closed systems dependent on rainwater, while fens are open areas with an inlet and outlet watered by streams and springs. These areas are dominated by Black Spruce and Tamarack (larch) and Red Maple growing in sphagnum moss with parasitic plants and fungi. In NJ we mostly have fens dominated by Atlantic White Cedar, Red Maple and Tupelo.

The conference was held on the shores of a lake which made for a beautiful setting and a great place to watch loons but too windy for displaying fungi. For a while, everyone was chasing mushrooms and tags all over the place. Eventually the tent flaps were secured and people could finally look at the specimens, although many were hard to examine due to poor lighting.

NAMA conferences are places where we are introduced to new people with new ideas. I was impressed with two such people.

The first was the keynote speaker for Thursday: Robert Blanchette, who spoke on “Historic Uses of Forest Fungi



PHOTO BY NINA BURGHARDT

Suillus cavipes “in situ” at Northwoods

with Tales of Shamans and Emperors”. He preserves and protects museum pieces from mold and decay. In his job, he has run across many strange items. One time he was working on wooden shaman artifacts when he realized that they were not wood at all, but carved sporophores of *Fomitopsis officinalis*. Poking around a bit more, he discovered that Native Americans used fungi quite frequently in religious ceremonies, medicine, and decorations. He was a fascinating speaker. I definitely would like to find out more about this topic.

The second person that impressed me was Emily Stone, the young naturalist and educator for the Cable Natural History Museum. I don’t know what we would have done without her. As Foray Leader, she sorted out who was riding the bus and who was carpooling. She made sure that everyone got where they wanted to go and did what they were supposed to do, handling the inevitable snafu with grace and charm. Besides making fantastic exhibit such as ‘Wood Wide Web’, she writes articles about nature in the local newspaper. These have been compiled into a gem of a book, *Natural Connections*. It is young people like Emily Stone who give me hope for the future.

I thoroughly enjoyed NAMA in the Wisconsin Northwoods. I even discovered that they do make decent cheese. I think they must keep all the good stuff for themselves, because the stuff called Wisconsin Cheese in my grocery store is usually flavorless and rubbery – fit only for a mousetrap.

I am looking forward to going to the 2018 NAMA conference in Salem, Oregon.



SERENDIPITY AND MUSHROOMS

by Judy Glattstein

It started rather simply. Our daughter and son-in-law have two weeks every two months at Purgatory, a ski resort 27 miles away from Durango, Colorado, in the San Juan National Forest. They would be there in mid-August, and invited us to spend some time with them. From a previous visit, Paul and I have learned to take a quiet day or two to acclimate when we first arrive. There's a period of adjustment, you know, from approximately 400 foot elevation in New Jersey to 8,950 feet up in the mountainous West where the lodge itself is located. This time ... this time it wouldn't happen.

We arrived on Friday evening. A notice in the elevator alerted me to a mushroom foray on Saturday morning, and a mushroom tasting event in the afternoon. Think I might be interested? Before I even unpacked I was back downstairs asking to be included. Alas, the foray was sold out, and with a waiting list.

I pleaded to be allowed to participate, mentioning my mushrooming pot hunting activities back in the Garden State, that I'd write this up on my website, and finally said that my membership in the New Jersey Mycological Association might possibly be revoked if they ever knew I was where there was a mushroom event and didn't participate. Talked to the event organizer, and he acceded to my request.

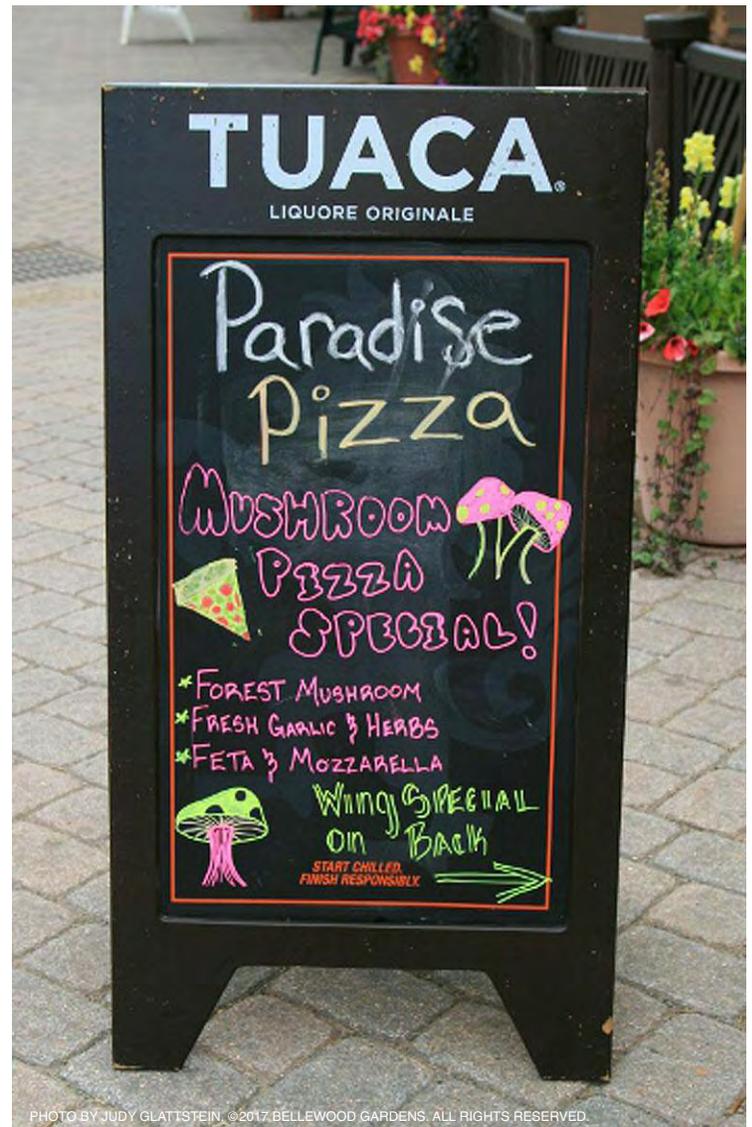
The schedule goes like this: meet at plaza at 9:00am. Saturday morning I joined the 70 or so people milling around on the plaza. Some were new to mushroom collecting, others had prior experience. People had bags or baskets, mushroom knives or kitchen knives. Everyone had enthusiasm. Board the shuttle buses 15 minutes later and drive off over dirt roads higher up into the mountains. Reach Dante's (elevation 10,503 feet, open in ski season) at 10:00am. We're divided into small groups, each with an experienced guide. Forage for mushrooms until 12:30pm. Refreshments were available on Dante's deck from 11:00am until noon. Then, at 12:30pm take chairlift or shuttle back to base area.

I was basically at the back of my group; walking is possible, walking quickly is not. This was not much of an issue, as the prolific diversity of mushrooms meant we'd walk, stop, admire and listen to a lucid explanation of how you could tell what mushroom(s) had been found. Then meander through the fir forest, stumble over downed trees, pick deliciously sweet, tiny wild strawberries in the open grassy clearings, and look for more mushrooms.

Back to Dante's with our haul, spreading mushrooms out for other people to admire, admiring other people's finds: boletes, hawk wings, funnel caps, shaggy manes, amanitas, LBM (little brown mushrooms). Enjoy wine

and snacks. Then back down the mountain for the fungi food event.

Sometimes serendipity happens. and you are in the right place at the right time; up the mountain at the Purgatory, with a mushroom foray the next day.



DINING ON MUSHROOMS IN COLORADO

by Judy Glattstein

We had a long day traveling from New Jersey to Colorado for a week's stay, mid-August. The elevation gain (from 400 feet to about 9,000 feet) takes some getting used to. That Friday, for our first evening's meal, the four of us decided on something easy and nearby – a pizza on the plaza. And what did I spy but a Paradise Pizza signboard offering wild mushroom pizza! My choice, but I had help eating it. Shiitake mushrooms, fresh sage – nice. But could have used more mushrooms. Only too much is enough...

(continues on the [next page](#))



PHOTO BY JUDY GLATTSTEIN. ©2017 BELLEWOOD GARDENS. ALL RIGHTS RESERVED.

Well-filled rustic mixed mushroom tart from Seasons Grill

The next morning, I went on a mushrooming foray. Came promptly down the mountain just after noon because at 1:00pm that afternoon there was a Mushroom and Wine Festival. Purgatory Lodge invited five restaurants from Durango to participate in a culinary showcase featuring mushroom-inspired dishes. And wine pairings suggested by the chefs and the Durango Wine Shop. The chefs from Purgy's also participate in the festival, with their own mushroom dish and a mushroom dessert.

Season's Grill offered a generous serving of a flavorful, well-filled rustic Mixed Mushroom Tart, embellished with a drizzle of a balsamic vinegar reduction, greens on the side. Tasty. A nice pour of Siduri Pinot Noir was the suggested accompaniment.

Cyprus Cafe had a Wild Mushroom Tartlet wrapped in a flaky pastry, with chevre and fresh herbs. This seemed a little bland to me, and the greens were baby lettuce rather than herbs.

I was very impressed with the Ore House Restaurant offering. It was the most complex, and the only one almost completely prepared on site. A deep fryer was set up outside the tent. Oyster mushrooms were gently tossed with a dry coating, excess shaken off, then deep fried, as were the little risotto cakes. Then assembled, plated, and garnished with threads of purple orach and a red rose petal or two. This was the tasting I liked best.

Something quite different from East by Southwest, a fusion restaurant that offers food prepared using traditional Japanese and contemporary cooking methods and techniques. We were offered Cold-smoked Ocean

Trout with Wild Mushroom Escabeche, served on a crostini base. The fish was quite good. Escabeche is a technique where the food is prepared with oil, vinegar, white wine, and seasonings. The mushrooms – oysters, I think – were somewhat slimy. Something with more substance, like a porcini or a portabella, might have been nicer. And the crostini was very crunchy, too thick in a pairing with the delicious, delicately textured fish and very soft mushrooms.

Eolus served a porcini mushroom risotto cake topped with chanterelle summer salad. A favorite pairing of mine; summer corn and chanterelles. Here the pairing also included shallots and chiffonade of greens.

Purgy's offered a Stroganoff with a medley of shiitake, wood ear, oyster, porcini and lobster mushrooms with a tidbit of elk tenderloin. The stroganoff and its sauce were very tasty, the tidbit of elk was chewy. They also offered a dessert incorporating mushrooms: Bread Pudding with chanterelle mushrooms and palisade peaches, topped with sriracha whipped cream. Not sure what the mushrooms added, other than their presence.

What an excellent, mushroom-filled Saturday. But the weekend was not yet over. On Sunday, we dropped down into Telluride after crossing from Ouray on Black Bear Pass Trail. And what did I see but more mushroom festival signs. Am I haunted? Don't know, but I'm having a good time.

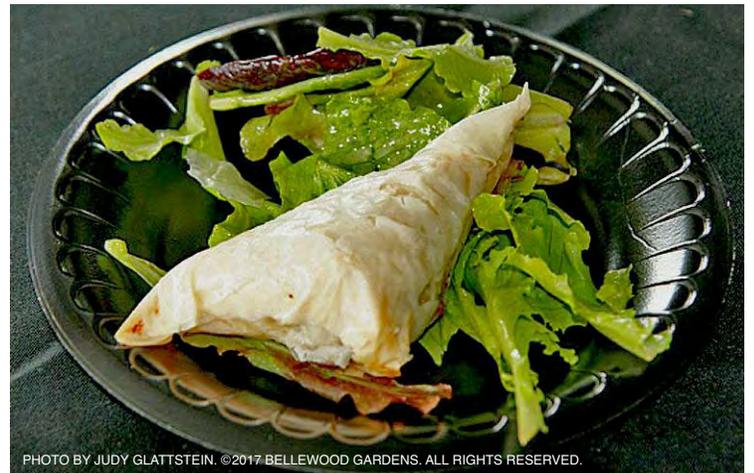


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Wild mushroom tartlet at Cyprus Cafe



PHOTO BY JUDY GLATTSTEIN. ©2017 BELLEWOOD GARDENS. ALL RIGHTS RESERVED.

Wild mushroom pizza from Paradise Pizza



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Ocean trout with wild mushroom escabeche at East by Southwest

REPORT ON FUNGUS FEST 2017

by Liz Broderick, Fungus Fest 2017 Chair

Fungus Fest 2017 was held on September 24 that turned out to be an unusually warm, sunny day with temperatures near 90 degrees. The heat didn't discourage any of our 320 visitors, many who stayed for most of the day to immerse themselves in our fungal exhibits, workshops, cooking demonstrations, walks and vendors.

Preparations for the Sunday event begin the week before. Phil Layton, Kevin Broderick, Dorothy Smullen, Marc Grobman and I spent Saturday setting up the exhibit hall and signage. Fran and Paul Sheldon drove down to Kennett Square to pick up the fresh fungi for our displays and cooking demonstration that Phillips Mushrooms so generously donates. Nina Burghardt, Maricel Patino and Jim Barg were out scouting the woods for fungi to populate our walks and displays. Jim Richards was busy baking his fantastic pastries for our morning coffee.

This year, several longtime volunteers were unable to help for because of other commitments. Thankfully, some other members stepped in to help out. John Dawson filled in for Mike Rubin at the Poisonous Mushroom display and created an informative Power Point presentation that he ran on his laptop, highlighting photographs of the most toxic species. Terry Layton shared her knowledge with the curious at the Medicinal Mushroom table. Isaac Rosenberg assisted Nina, John and Rich Balsley at the ID table. Fran Sheldon helped Judy Mudrak at the Membership table while Paul Sheldon talked to folks about how to collect wild mushrooms. Laura Hooper was a "floater" and helped out where needed.

Two new exhibits this year to added to the fun. Jim Barg created a PowerPoint presentation of some of his spectacular photographs as well as prizewinners from our annual photography contests. Visitors were able to see the beauty of fungi in their natural setting. Maricel Patino created an interesting display showing how important fungi are to our ecosystems. She highlighted the diverse fungi found at the Franklin Parker Preserve, and how they are an integral part of this fragile pinelands environment. Her mini-diorama was lovely and invited many questions. The Mystery Mushroom remained an enigma until she identified it as *Mycenastrum corium*.

Ursula Pohl and Cheryl Dawson displayed their gorgeous creations made with fungal-dyed fabrics and yarns, and explained the process of dyeing wool and silk using fungi and various mordants.

Tantalizing smells drew guests downstairs to our popular cooking demonstrations. Bob Hosh, Luke Smithson and their team created tasty mushroom treats for our guests to sample using some of the more exotic

fungi that can now be found at most grocery stores.

Frank Kushnir and Group Growing put on two packed workshops showing simple ways to cultivate Oyster and Lion's Mane Mushrooms using wood pellets.

Our taxonomy experts, Nina and John Burghardt, Rich Balsley, and Isaac Rosenberg identified 122 taxons including three species that are new to our NJMA list.

Our vendors also enjoyed a successful day. Chris Darrah of Mainly Mushrooms brought a beautiful display of fresh and dried mushrooms to sell. Fresh black truffles, chanterelles, black trumpets, maitake, chicken of the woods, shiitake and cremini mushrooms were offered for sale, along with an assortment of dried porcini, lobster mushrooms and even candy caps. He supplemented our cooking demonstrations when we ran short on fresh mushrooms. Jean Dominique of Nature Bone Studios sold her awesome flame-worked glass jewelry. Judy Gorab sold prints of her colorful photographs of fungi. Thanks to Jim Richards who, once again, coordinated the vendors.

The enthusiastic crowd of all ages at Fungus Fest seems to reflect an increased interest in foraging and using mushrooms for food and medicine. A huge thank you to all the dedicated volunteers who spent a busy day making this outreach so successful. We signed up 27 new members, both individual and family memberships at the event, with more signing up online. After the crowds were gone and the displays were put away for another year, we got to sit down and catch up with each other over a yummy potluck dinner.

Be sure to mark September 23, 2018 on your calendars for next year's Fungus Fest, which is traditionally held on the 4th Sunday in September. Please consider volunteering if you want get more involved in our club and to learn more about fungi.



PHOTO BY JUDY GLATTSTEIN. ©2017 BELLEWOOD GARDENS. ALL RIGHTS RESERVED.

WHO'S IN A NAME?

Ramaria murrillii

by John Dawson (sixty-third in a series)

Ramaria murrillii (Coker) Corner is a coral fungus, images of which, from Pennsylvania, Virginia and North Carolina, may be viewed on the *Mushroom Observer* site. According to *Index Fungorum*, it is one of ten species of fungi that currently bear the epithet *murrillii*, in honor of William Alphonso Murrill, a mycologist who founded the journal *Mycologia* and wrote more than 500 articles and books on a wide variety of natural history subjects.

Born on 13 October 1869 on a farm near Lynchburg, Virginia, Murrill's career followed a most unusual trajectory comprised of two distinct phases. The first phase, lasting until 1924, was relatively conventional, apart from his precocity: he entered Virginia Agricultural and Mechanical College (now Virginia Polytechnic Institute and State University) at age 12 and graduated from there *summa cum laude* in 1887 with a Bachelor of Science degree. He then moved to Randolph Macon College, where he earned a second Bachelor of Science degree in 1889, a Bachelor of Arts in 1890, and a Master of Arts in 1891, before spending two years teaching at Bowling Green Female Seminary (now Southern Virginia University) in Buena Vista, Virginia, and four at Wesleyan Female Institute in Staunton. During the latter period, he frequently audited lectures and consulted with faculty at the University of Virginia in Charlottesville, whose "zoology museum, medical school, chemistry laboratories and observatory" strongly influenced his decision to become a naturalist.¹

In 1897, Murrill was awarded a fellowship in botany at Cornell University, where he studied, among others, with George F. Atkinson (profiled earlier in this series). He married that same year, and three years later received his Ph.D. in botany, after which he taught at Dewitt Clinton High School in New York City until he was appointed assistant curator at the New York Botanical Garden in 1904, replacing Franklin Sumner Earle (subject of the immediately preceding one of these articles). He worked there under the Garden's founding director, Nathaniel Lord Britton, an eminently successful fundraiser who promoted an American Code of Botanical Nomenclature (in opposition to the international code then in use elsewhere) that allowed him to rename botanical species after major benefactors of the Garden.

Though Britton was notorious for the way he treated his employees, Murrill worked closely with him for twenty years, becoming assistant director of the Garden in 1908 and Supervisor of Public Instruction in 1919. That he was able to do so was likely because he was a refined Southern gentleman who impressed visitors to the Garden, was an assiduous collector who contributed more than 70,000 species to the Garden's herbarium, and was a quintessential taxonomic "splitter" who furthered Britton's nomenclatural scheme.



W. A. Murrill
as a young man

During his years at the NYBG, Murrill and his wife lived in "a large, beautiful, well-furnished home near the Garden" that was "filled with many art treasures and rare collector's objects from abroad", where "delicious dinners" and "continuous entertainment" were provided to "a widely diversified guest list."² But Murrill also spent much time away from home, in part, perhaps, to escape the pressures of his administrative responsibilities at the Garden, attending botanical conferences and making collecting trips to Europe on an irregular schedule, often with no prior notice as to where he was going or

how long he was to be away; and though his wife accompanied him on his domestic trips, she never traveled abroad, reportedly because of aquaphobia.³

In 1924, those circumstances resulted in a life-changing experience for Murrill, when he went to Europe and was not heard from for eight months. Neither his wife nor his employer knew whether he was alive or dead and, in due course, she filed for divorce on grounds of abandonment and the New York Botanical Garden hired a replacement for him. It turned out that his long absence was the result of a kidney condition that had left him hospitalized in a small French village, but why he was unable to inform anyone about his situation remains unexplained.

On his return to the United States, Murrill was stunned to find himself divorced and unemployed. Emotionally and financially drained, he moved back to Lynchburg to live in the home of an aunt while he built a log cabin in the woods; and there, through communion with nature, he gradually recovered his physical and mental health and began to make regular collecting trips to Gainesville, Florida.

How Murrill supported himself during that time is unclear, but in 1926, George Weber, a mycologist and plant pathologist at the University of Florida, serendipitously recognized him, looking frail and haggard,

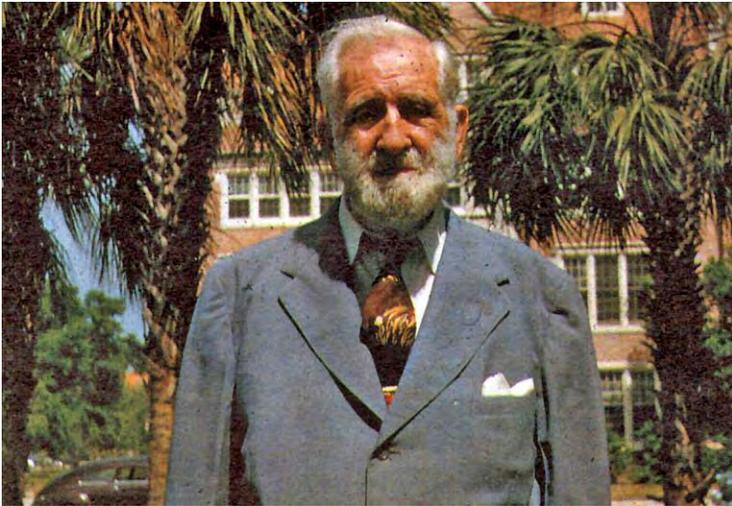
(continues on next page)

¹ Information and quotation taken from the 1961 obituary memoir of Murrill by George F. Weber in *Mycologia* 53(6), pp. 543–557.

² Weber, *op. cit.*, pp. 546–7

³ According to James Kilbrough's account "The twilight years of William Alphonso Murrill" in *Mushroom the Journal*, Spring 2003, p.30. (Information in this secondary source sometimes conflicts, however, with that in Weber's obituary memoir.)

playing piano for guests at a Gainesville tourist court. Murrill's situation clearly was dire, so Weber and another Florida professor, Erdman West, saw to it that he was properly clothed and fed, provided him with a desk, microscope, and lamp, and found him space to set them up on the third-floor stairwell landing (!) of a building near the University herbarium. Weber "also arranged for a remaining \$600 in ... royalties [from sales of Murrill's 1916 book *Edible and Poisonous Mushrooms* to be sent to Murrill"⁴ by the NYBG — funds that Murrill used to purchase a small lot and tools with which to build a house on it. (He subsequently built two more small houses, in which he lived successively while renting out the earlier ones.) Murrill became a well-loved figure on the campus and spent most of his time there; he often worked late into the night on mushrooms he had collected earlier in the day, then instead of going home went to sleep "on a couch in the student union [where] the next morning ... students would rouse him and often treat him to breakfast."⁵



W. A. Murrill in Florida

Murrill lived in Gainesville for the final 34 years of his life, working in his stairwell office and living alone in his house. He had no academic appointment, no pension, and, during the final fifteen years of his life, no income apart from the meager returns from his publications. According to Weber,⁶ "his physical needs were looked after by his Gainesville friends," he received treatment for his recurring kidney condition at the University infirmary, "and during the last few years he received some financial and medical support from the Florida Social Welfare Board." Nevertheless, he continued to collect and study fungi sedulously, was active within the scientific and cultural communities in Gainesville, was "an ardent photographer and artist" as well as "a collector ... of art, sculpture, paintings, stamps, and shells," and was a composer of "hundreds of sheets" of musical lyrics.⁷

Murrill died on Christmas Day, 1957, aged 88. In addition to his numerous publications, his founding of *Mycologia* (which he edited for 16 years), and the many

specimens he deposited in herbaria, he is remembered as the one who first identified the fungus responsible for the chestnut blight that devastated American forests. The New York Botanical Garden holds a collection of his papers.

Photo credits: The profile portrait of Murrill as a young man originally appeared in Curtis Gates Lloyd's *Mycological Notes*. The portrait of Murrill in Florida was copied from an image in Kilbrough's article cited in footnote 3 on the previous page. 

⁴ Quoted from the *Wikipedia* entry on Murrill

⁵ *Ibid.*

⁶ Weber, *Op. cit.*, p. 549

⁷ Weber, *Op. cit.*, pp. 549–50.



BYTES, BITS, & BITES

TASTY LITTLE TIDBITS FROM OUR MEMBERS

from Judy Glattstein:

At least NJMA does not have these problems:
"Mushroom Foraging interrupts military exercise"

<https://tinyurl.com/yb2quobv>

from Judy Glattstein:

And the photo looks especially yummy!

<https://tinyurl.com/y7dxdp76>

from Judy Glattstein:

Who would have thought . . .

<https://tinyurl.com/ybxbtl8v>

from Sue McClary:

Below are a couple of potential newsbits for the newsletter.

Creating medicines with poisonous Amanitas

<https://tinyurl.com/jotygz>

Could Chrohn's disease be due to the fungus
Candida tropicalis?

<https://tinyurl.com/yb4q6ppe>

Another newsbit from Sue McClary:

Before there was tomato ketchup, there was mushroom ketchup:

<https://tinyurl.com/yncomos2>

reply from Jim Richards:

Sue, thanks for an interesting article – I have actually made some, many years ago, when Bob Peabody and I found an abundance of Meadow Mushrooms.

(continues on [page 18](#))

CALENDAR OF UPCOMING EVENTS

- Sunday, January 7**
1:30 pm
MEETING & LECTURE:
Frelinghuysen Arboretum, Morristown, NJ
Topic: Three 3 NJMA Member Projects:
Dorothy Smullen, Luke Smithson, and others (*More details on [page 4](#)*)
-
- Sunday, February 11**
1:30 pm
ANNUAL MYCOPHAGY MEETING & MYCO-AUCTION
Unitarian Society of East Brunswick, Tices Lane, East Brunswick
Luke Smithson and Jim Richards, Mycophagy
Marc Grobman and Frank Marra, Myco-Auction
NJMA MEMBERS ONLY – REGISTRATION REQUIRED
To register and to volunteer to help, contact Jim Richards (jimrich17@me.com)
To donate mycologically-themed items for the Myco-Auction, contact Marc (marc@marcgrobman.com) or Frank (marraman1@verizon.net)
-
- Sunday, March 11**
1:30 pm
MEETING & LECTURE:
Frelinghuysen Arboretum, Morristown, NJ
Topic: “Mycologists: Wake Up and Smell the Fungi”
Lecture by Professor Joan Bennett, Rutgers University (*More details on [page 4](#)*)
-
- Sunday, April 15**
1:30 pm
MEETING & LECTURE:
Frelinghuysen Arboretum, Morristown, NJ
Program topic to be announced.
-
- Sunday, September 23**
10:30 am
FUNGUS FEST 2018
at the Frelinghuysen Arboretum in Morristown
(setup will be on Saturday, September 22)
-
- Sunday, November 11**
1:30 pm
NJMA ANNUAL MEMBERS’ MEETING AND ELECTION OF OFFICERS:
Frelinghuysen Arboretum, Morristown, NJ
Program topic to be announced.
-



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

WHO'S IN A NAME? *Turbinellus kauffmanii*

by John Dawson (sixty-fourth in a series)

According to *Index Fungorum*, the epithet *kauffmanii* is currently employed in the scientific names of fungi in twenty-four different genera belonging to eighteen different families. Among them is the chanterelle *Turbinellus kauffmanii* (A.H. Smith) Giachini,¹ named like the others in honor of the American agaricologist Calvin Henry Kauffman.

Given the number of species named after Kauffman, one might presume that multiple sources would provide biographical information about him, but the only reference I have found that describes his life and career in any detail is the obituary memoir of him by E.B. Mains published in *Mycologia*.² Several portraits of him may be viewed online at <http://www.cybertruffle.org.uk/people/0012396.htm>; that reproduced here, however, is taken from the brief *Wikipedia* entry about him.

Born 1 March 1869 on a farm outside Lebanon, Pennsylvania, Kauffman developed an early interest in botany. In college, however, he studied languages rather than science. After attending Palatinate College in Myerstown, Pennsylvania, for two years, he transferred to Harvard, where he majored in Greek and Latin, met and married Elizabeth Catherine Wolff, and graduated in 1895 with an A.B. degree. He then taught in preparatory schools in his home town as well as in Decatur, Indiana, and Bushnell, Illinois, and only became attracted to mycology in 1900, as a result of acquiring a book on mushrooms by G.F. Atkinson.³ He resolved then to pursue a career in science and took courses in botany and chemistry at the University of Wisconsin in 1901-02 before enrolling at Cornell University, where he served as Atkinson's assistant from 1902-04 and began graduate study. In 1904, he was offered an instructorship in botany at the University of Michigan and so transferred there to continue his doctoral work. He received his Ph.D. from Michigan in 1907 for a dissertation on the Saprolegniaceae and remained at Michigan thereafter. He was promoted to assistant professor and curator of the cryptogamic herbarium in 1912, to associate professor in 1920 and to full professor in 1923. In 1921 he was appointed overall director of the University herbarium, to whose expansion and development he devoted much effort during the remaining ten years of his life. Upon his resignation due to ill health in January of 1931, he was named professor emeritus and director emeritus, and five months later, on 14 June, he died.

During his career, Kauffman authored 42 publications, including monographs on the genera *Armillaria*, *Clitocybe*, *Flammula*, *Gomphidius*, *Inocybe*, *Lepiota* and *Paxillus*. His best-known work, *The Agaricaceae of Michigan*, was published in two volumes in 1918 by the

Michigan Biological and Geological Survey. In its 924 pages of text and 172 plates he described and illustrated 884 species of agarics.

Overall, Kauffman described more than 200 species of fungi that were new to science, not only from Michigan but from the Rocky Mountains, the Pacific Northwest, Tennessee, North Carolina and Kentucky.

In recognition of his contributions to mycology, Kauffman was elected a member of the American Association for the Advancement of Science. He was also remembered by Mains as having been “an enthusiastic and inspiring teacher,” among whose illustrious students was his successor at Michigan, Alexander H. Smith (profiled in the eighth installment of this series). 



Calvin Henry Kauffman

¹ Formerly known as *Gomphus kauffmanii*, described and beautifully illustrated on p. 137 of William Roody's *Mushrooms of West Virginia and the Central Appalachians*

² Vol. 24, no. 3 (1932), pp. 265–267. Some additional information is provided on the *Mushroom the Journal* site, <http://www.mushroomthejournal.com/greatlakes-data/Authors/Kauffman873.html>

³ Subject of the fifth installment of this series.

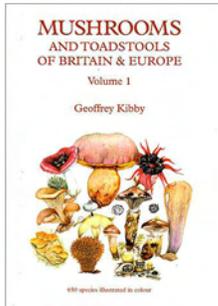
**When you make the finding yourself —
even if you're the last person on earth
to see the light — you'll never forget it.**

— Carl Sagan

BOOK REVIEW

MUSHROOMS AND TOADSTOOLS OF BRITAIN AND EUROPE, VOLUME ONE

a review by Luke Smithson



Mushrooms and Toadstools of Britain and Europe, Volume One by Geoffrey Kibby

Published by Geoffrey Kibby (2017)
(264 pages)

ISBN 10: 0957209428
ISBN 13: 978-0957209428

Volume 1 of Geoffrey Kibby's 2017 mushroom guidebook contains 650 species of fungi that fall into the following categories: Puffballs, Earthstars, Stinkhorns, Chanterelles, Toothed Fungi, Club Fungi, Coral Fungi, Polypores, Crust Fungi, Boletes & their relatives, Russula and Milkcaps. Each species is beautifully illustrated with a color painting as opposed to the typical photograph, giving the book a very classy feel. The illustrations by the author often include substrates or associated plants in the painting and are accompanied by line drawings of spores and some microscopic features. The paintings also show details of chemical tests on the mushrooms.

Each specimen includes an accompanying text that gives a good, solid description of the mushroom along with synonyms, spore descriptions, occasional microscopic descriptions, habitats and some useful notes. Also included are definitions of the Latinized species name, a feature that I appreciate because knowing what the name means often helps me remember it better. Edibility is given on more popular species. Interestingly, the author includes species that are most likely extinct in Britain (for example, it's been 80 years since the last sighting of *Gomphus clavatus* in Britain), but are included to keep people on the lookout. Other rare species are noted, and one gets the feeling that Kibby is a conservationist at heart.

The book is principally an identification book, but it does include some other useful and interesting information. It includes a good introduction to fungal classification with a chart and table showing the authors concept of relationships and hierarchies. This is a feature that I often wish for in other guidebooks. There is a brief section on structures of larger fungi, and although brief, it is more in depth than most identification books. A list of chemical tests is included, as well as a resource list and further reading list, although the resources are very European in scope. A checklist of important trees and shrubs is included, but again, they are very Eurocentric (as the name of the book clearly states). This is a welcome feature in a guidebook that conveys what is really needed to identify mushrooms.

A pictorial key to major groups of mushrooms precedes the identification section, and each grouping starts out with an article and some photographs showing specific details. This is where the book really moves away from the American reader as only a few of the species are relevant to American collectors. Species found in North America (and there are some) are not noted; only European locations are mentioned. I saw a number of familiar species, especially resupinate and poroid fungi, but I also noticed many species that I have never seen in North American books. The index is well organized, with both species and genus names being used as references.

Overall, this is a very nice book with good information and beautiful paintings of many interesting mushrooms. Serious mushroom book collectors will enjoy having this book on their shelf, while casual mushroom identifiers will probably be better off with a book more suitable to our geographic location. It is certainly worthy of checking out of the library and perusing for yourself; you very well may decide that is worth the Amazon price tag of \$59.95.

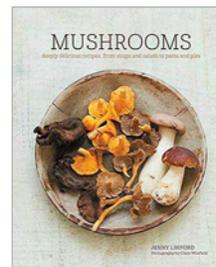
Editor's note: We will be offering Geoffrey's book at a special discounted price (much lower than Amazon's) for NJMA members. At one time, the author was president of NJMA and editor of *NJMA News*. Please contact our Book Salesman, Randy Hemminghaus, for more information.



BOOK REVIEW

MUSHROOMS: DEEPLY DELICIOUS RECIPES, FROM SOUPS AND SALADS TO PASTA AND PIES

a review by Liz Broderick



Mushrooms: Deeply Delicious Recipes, From Soups to Salads to Pasta and Pies by Jenny Linford

Published by Ryland, Peters & Small Ltd. (2017)
(160 pages)

ISBN 10: 1849758808
ISBN 13: 978-1849758802

British author, Jenny Linford, has put together an amazing cookbook with 65 easy-to-follow recipes that showcase the versatility of fungi. The publisher proclaims this beautiful book a celebration of mushrooms and fungi from folklore to foraging: it lives up to the hype. The author incorporates fun facts about cultivated and wild fungi, a few pages about mushroom growers, including Jim Angelucci from Phillips Mushrooms, and how to preserve our mushroom bounty. The photography enhances the recipes, enticing the reader to try new takes on favorite comfort foods and interesting ethnic dishes. Broken into sections like small bites, soups and stews, grains and pasta, vegetable and meats, the book is a browsing pleasure. However, the real test of a cookbook isn't how pretty it is, but how well the

(continues on [next page](#))

food turns out. I set about testing the recipes on my family and friends. Traditional favorites for mushroom soup, pickled mushrooms and stroganoff are well represented, but there are so many really good ethnic dishes that you want to step out of your comfort zone. This isn't a book just for carnivores. Many of the recipes are vegetarian, highlighting Asian, Spanish and Indian cooking with lighter, quicker preparations. The noodle bowls and lettuce wraps were delicious. Another plus was that the most ingredients were in my pantry already, or readily available at the supermarket. Both metric and American measurements are included in the directions.

The Truffled Mushroom Lasagna was a major hit with even my picky 3-year-old grandchildren – cleaning their plates. The Mushroom Mac'n'Cheese, made with chanterelles frozen from the summer, also turned out well. Pesto-stuffed Mushrooms were worthy of a good tapas bar and so easy to make. Savory Chicken and Mushroom Pie was company-worthy and an easy way to utilize that rotisserie chicken from the grocery store.

Something that makes this book special is that some of the recipes are so quick and easy. After spending all day in the woods (or at work), what are you going to make for dinner with those foraged finds? The Tricolore Mushroom Frittata was ready in minutes, and the Scrambled Eggs with Chanterelles were a breeze. Polenta with Wild Mushrooms was another quick dinner using instant polenta and some fresh hen-of-the-woods that came together quickly. The Shrimp and Oyster Mushroom Stir-fry was delicious.

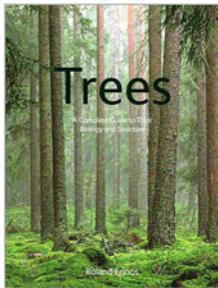
Many of us want to incorporate more mushrooms into our diet because of their health benefits, but don't want to sacrifice taste. Ms. Linford's recipes showcase how to use many of the lovely, exotic mushrooms in the markets and as well as our foraged finds.



BOOK REVIEW

TREES - A COMPLETE GUIDE TO THEIR BIOLOGY AND STRUCTURE

a review by Dorothy Smullen



Trees - A Complete Guide to Their Biology and Structure

by Roland Ennos

Published by Cornell University Press, 2016.
(128 pages)

ISBN 10: 1501704931
ISBN 13: 978-1501704932

Trees is a fantastic book for anyone who loves these plants. It starts with the first vascular plants on earth and brings you through the evolution of trees and secondary thickening. The author even discusses many plants that are called trees (monocots) but they are not – structurally.

Every glossy page of the book is filled with colorful diagrams and photos. It's a feast for your eyes.

Chapters on "How Trees Lift Water" and "How Trees Stand Up" are filled with fabulous microscopic images of plant tissue. The discussion of embolism and the strategies that different trees use was enlightening to me.

Mycorrhizae are highlighted on page 35. Glad they are included.

Chapters on survival strategies of trees in different climates are followed by ones on specialist trees; those along rivers, in swamps, in deserts and the coastal mangroves.

The final chapter, "Trees and People," includes many reasons why wood is so useful as a superb structural material. Products from trees such as chemicals, food, and drugs are just briefly mentioned. There is hope that sustainable forestry is being developed all over the world. The author's closing sentence: "We must make sure that we never consent to live in a world without trees."

The book also includes a glossary, selected books and websites as well as a thorough index.

I highly recommend this informative and beautiful book to all naturalists.



RECIPE FILE

Porcini and Fried Eggs

courtesy of Jimmy Grainer, via the newsletter of the Colorado Mycological Society, August 2017

Jimmy is an adventurer/wanderer/gourmet chef from New Orleans. He regularly flies around the world to cook for private events. Heralding from a Cajun cooking background, the recipe he gave us is savory, flavorful, and hearty – and an accessible recipe for everyone from novices to skilled chefs. Another plus for hungry foragers: It's quick, and there are only five ingredients.

Ingredients:

- *Porcini*
- *Eggs*
- *Olive oil*
- *Butter*
- *Salt*

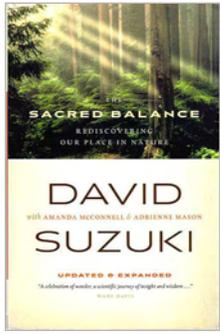
Mix equal parts butter and olive oil in a skillet on medium heat. Slice porcini top to bottom to about 1/3 to 1/2 inch thick. Lay porcini slices flat in skillet, salt to taste, and saute both sides until thoroughly cooked and lightly browned. Remove porcini from the pan, set aside. Using the oil still in the pan, pan fry eggs on low heat. Can be sunny-side up or over-easy, but keep the yolk runny. (Poached works too.) Serve porcini with one or two eggs per person; puncture the eggs and smother porcini in the yolk.



BOOK REVIEW

THE SACRED BALANCE: REDISCOVERING OUR PLACE IN NATURE

a review by Dave Wasilewski



*The Sacred Balance:
Rediscovering Our Place in Nature*
by David Suzuki

Published by Greystone Books (2007)
(358 pages)

ISBN 10: 1553651669
ISBN 13: 978-1553651666

As I read through the pages of David Suzuki's book, a pervasive and unsettling irony constantly tugged at the back of my mind. The unifying theme of this book is that the most urgent challenge to the human species stems from the unique human ability to transform the environment with which it has evolved. But this ability is itself a product of evolution. Does this foretell an evolutionary imperative for "rational" beings to eventually self-destruct as a species?

To a large extent, Mr. Suzuki's thesis consists of a perception that, as a result of the two-pronged influence of reductionist scientific thought and subsequent technological developments, human beings have abandoned a crucial relationship with nature that had been maintained by older more primitive societies. Although I find the romanticizing of ancient cultures to be at least somewhat naïve – the Mayans, for instance, are thought to have doomed their own existence by over-harvesting trees – quotes such as "We become enslaved by the constant demands of technology meant to serve us" bring to mind the post-industrial revolution epiphany of H. D. Thoreau. Suzuki's criticism that the modern concept of a person's quality of life has too much to do with acquiring possessions, and too little to do with forming relationships with other living things, echoes Thoreau's call to simplify. However, *The Sacred Balance* differs from Walden in that it calls for a sea-change-of-course for all humanity, whereas Thoreau's personal vision is conveyed subtly by means of experiences and allegories. Suzuki's style is much more direct, and, at times, the overarching urgency of tone that permeates much of the writing in *The Sacred Balance* can be a bit ponderous.

Much of the first five chapters of *The Sacred Balance* consist of a brief history of the universe, earth, life, and in particular *Homo sapiens*. Occasionally, this amounts to a sort of undergraduate freshman-level exposition, but never lacking in the narrative that maintains a connection to Mr. Suzuki's thesis that humans have evolved along with all other earthly entities, both living and inanimate, and that, as such, humans should view

themselves as an integral part of nature (as opposed to something that presides over nature). For anyone with a sufficient scientific background, much of what is found in these chapters may be skim-read. But, I must admit that I learned a few things. For example, the author's succinct explanation of polymorphic genes as an evolutionary strategy was, for me, quite informative. As for mention of the role of the Fifth Kingdom, Fungi, there are a few brief allusions. A three-way symbiotic relationship between an Australian marsupial, a type of tree, and a truffle is used to illustrate the interconnectiveness of living things.

On a philosophical level, an underlying theme encompasses the classic juxtaposition of "progress" versus "process". At times, the author appears to align with the belief that all events, beginning with the Big Bang, represent process. There is no grand scheme unfolding which humans may simply trust will take them to a new understanding, a Promised Land, at least not in the absence of proactive human behavior. But, perhaps *Homo sapiens* represents an ironic twist within some potential evolutionary progression, a stage at which consciousness must act upon process in order to render progress. The problems that humans solved 100,000 years ago encompassed finding ways to survive by utilizing the resources surrounding them. Today's human problem of surviving as a species encompasses finding ways to avoid abusing resources. Either way, it behooves humans to respect their surroundings. The problem with technology is that it fosters a hubris of species, a belief that humans are gods, beings apart from and more important than nature, which they are part of.

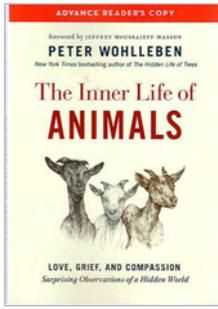
Mr. Suzuki's attempt to positively address the question of potential species self-annihilation takes shape within the last chapter. He cites globally diverse examples of environmental activism which have produced tangible positive results; at least in terms of addressing local issues. He points out that people have become more aware of the importance of "reducing, recycling, and reusing." In Canada, which is Mr. Suzuki's homeland, the establishment of a federal department known as Environment and Climate Change Canada perhaps represents a larger-scale response to challenges put forth in this book. Is it a function of human evolution that rational thought inevitably finds solutions to the problems it creates? The United States has long envisioned itself as blazing the trail of human progress, and this is attributed to the democratic empowerment of the individual citizen. But, given the current political climate in the United States, it seems unlikely that short-term domestic policy will give rise to even reactive – let alone proactive – measures meant to address global climate. David Suzuki's *The Sacred Balance* may be regarded as a call to action, in particular for the United States and its citizens.



BOOK EXCERPT

excerpted from

THE INNER LIFE OF ANIMALS: LOVE, GRIEF, AND COMPASSION SURPRISING OBSERVATIONS OF A HIDDEN WORLD



by Peter Wohlleben

Published November 7, 2017 by Greystone Books in partnership with the David Suzuki Institute. Reproduced and condensed with permission from the publisher.

From the chapter “Anybody Home?”

Is there really only one way—the human way—to experience feelings intensely and perhaps consciously? ... I would like to introduce you to one more creature in our woods, an organism that is mindless in the truest sense of the word. Sometimes you can find it on rotting wood, where it forms a small, bumpy, yellow mat. It’s a fungus. Hold on a moment. Isn’t this a book about animals? Well, in the case of this fungus, science is not exactly sure which category it belongs to. It’s difficult enough with normal fungi, which form a third kingdom of living things in between animals and plants, because they cannot be clearly assigned to either category. Like animals, fungi subsist on organic substances from other living beings. In addition, their cell walls are made of chitin, like the exoskeletons of insects. And the slime mold that creates that yellow mat on dead wood can even move. At night, like gelatinous jellyfish, these organisms are capable of slithering out of the glass lab containers where they are temporarily confined. Today, science is moving them out of the realm of fungi and edging them a step closer to animals. Welcome to this book.

Researchers find some kinds of slime molds so interesting that they regularly observe them in the laboratory. *Physarum polycephalum*, with its somewhat awkward Latin name, is just such a customer, and it loves rolled oats. Basically, the creature is one giant cell with countless nuclei. What researchers are now doing is placing these slimy unicellular organisms in a maze with two exits and putting food at one of the exits as a reward. The slime mold spreads out into the maze and after a hundred hours or more, finds the exit with the oats—not bad, really. To do this, it clearly uses its own slime trail to recognize where it has already been. It then avoids those areas because they have not led to success. In nature, such behavior is of practical benefit, because the creature knows where it has already been in its search for food and, therefore, the places where there isn’t any food left. It’s quite a feat to be able to solve a maze when you don’t have a brain, and researchers credit these moving mat-like creatures with having some kind of spatial memory.¹ Japanese researchers topped it all off by using a slime mold to reproduce a

map of the most important transportation routes in Tokyo. To do this, they set a slime mold down on a damp surface at a point that represented the center of the city. Piles of food marked the principal neighborhoods as attractive places to visit. The slime mold set off, and when it had connected the neighborhoods using the optimal, shortest route, there was a big surprise. The image pretty much corresponded to the suburban train system in the metropolis.²

I particularly like the slime mold example, because it shows how little it takes to overturn our preconceptions about primitive Nature and stupid, emotionless animals. These alien creatures lack any of the basics laid out in the preceding chapters, and yet, if organisms with only a single cell have spatial memory and can perform complex tasks, how many undreamt-of skills and emotions might there be in animals with as few as 250,000 brain cells, like the fruit flies I’ve just introduced you to? Given how much more like us birds and mammals are in the physical structure of their bodies and brains, it would hardly come as a surprise if we were to discover that they are as sensitive to the world as we are.



¹ Chris R. Reid, *et al.*, “Slime Mold Uses an Externalized Spatial ‘Memory’ to Navigate Complex Environments,” *PNAS* 109, no. 43 (2012): 17490 – 94. DOI: 10.1073/pnas.1215037109.

² American Association for the Advancement of Science, “Slime Design Mimics Tokyo’s Rail System: Efficient Methods of a Slime Mold Could Inform Human Engineers,” news release, *ScienceDaily*, January 22, 2010. <https://www.sciencedaily.com/releases/2010/01/100121141051.htm>.

ESCAPED COMMERCIAL MUSHROOMS

Andrea Bruce, a master’s student in mycology at the University of Wisconsin-LaCrosse, is studying the spread of the oyster *Pleurotus citrinopileatus* in the wild in North America. The mushroom appeared on the American market about 17 years ago, and reports of wild fruitings came in about five years ago. Since then, it has spread rapidly throughout the midwest, and now up into the northeast. If you come across this striking golden oyster, Andi would greatly appreciate your reporting it to her. (www.andibruce.com)

On a related note, Chris Kucsma posted photos of shiitake (*Lentinula edodes*) that were found in May on Cape Elizabeth on forest logs that had not been inoculated.

reprinted from *Mainly Mushrooms*,
newsletter of the Maine Mycological Society, October-December 2017

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 1, 2017 and December 26, 2017. We look forward to seeing you at lectures, forays, and other NJMA events. Happy 'shrooming!

Julie Akers	Newtonville, NJ	Joseph Lalka	East Windsor, NJ
Joseph Alvarez	Cape May, NJ	Leslie Lello	Ridgewood, NJ
Susan Amsel	Lexington, MA	Nicole Lohrbeer	Somerville, NJ
Marti Balcom	Medford, NJ	Melody MacDowell	Lafayette, NJ
Linda Barrientos (Spencer)	Moorestown, NJ	Thomas Marino	Edison, NJ
Alyssa Bednarek	Newton, NJ	Ernesto Martinez	Sayville, NY
David Bildner	Teaneck, NJ	Joy Mattson	Basking Ridge, NJ
Gretchen Bing	Morristown, NJ	Richard McKiver	Southampton, PA
Bozena Borcz	East Rutherford, NJ	Barbara McMullen	Keyport, NJ
Lori Boroska	Frenchtown, NJ	Johnie McNorton	Ocean City, NJ
Jennifer Bowen	Englewood, NJ	Anthony Metta	Old Bridge, NJ
Mark Breen-Klein	Haddon Heights, NJ	Robert Meyer	Rahway, NJ
Jeffrey Brenner	Philadelphia, PA	John Montefusco	Morris Plains, NJ
Kimberley Brokaw	Hampton, NJ	Karen Muller	Boonton, NJ
Cedric Burg	Fort Lee, NJ	Shannon Mulligan-Mayernik	North Haledon, NJ
Irina Chernyakhovskaya	Fair Lawn, NJ	Diana Nash	Upper Saddle River, NJ
George Chirco	Princeton, NJ	Brian Neal	Hillsborough, NJ
Christopher Clavette	Little Falls, NJ	K. Nescovska	Scotch Plains, NJ
Ruth Copeman-Carll	Eatontown, NJ	Gary Niper	Frenchtown, NJ
Kevin Cooper	Ocean, NJ	Joanna O'Neill	Hamilton, NJ
Thomas Cowling	Neptune City, NJ	Mary Olin	Morris Plains, NJ
Kathy Deats	Lebanon, NJ	Abdias Pajaro	Fords, NJ
Elizabeth DeCicco	Mays Landing, NJ	Maria Palumbo	Wharton, NJ
Roseann DeLuca	Fort Lee, NJ	Alicia Perkins	Budd Lake, NJ
Gilbert & Griselda Demassey	Hamilton, NJ	Frank Pfisterer	Brick, NJ
Anthony DiAngelis	Lanoka Harbor, NJ	William & Teresa Present	New Hope, PA
Cheyenne DiEnno	Lumberton, NJ	Ankita Raut	Kearny, NJ
Patrick & Kimberly Dronne	Bensalem, PA	Justin Roach	Lafayette, NJ
Steven Dultz	Gillette, NJ	James Robinson	Pennsville, NJ
Joshua Earl	Philadelphia, PA	Svetlana Rock	Mount Laurel, NJ
Joshua Espinosa	Bloomfield, NJ	Peter Ross	Bayonne, NJ
Rita Feigler-Friedrich	Randolph, NJ	Pamela Rosser	Morrisville, PA
Eric B. Fields	Bordentown, NJ	Stephanie Salvador	South Amboy, NJ
Frank Forte	Budd Lake, NJ	"Sears Technology"	Wallington, NJ
Bill Frauenhoff	Wayne, NJ	Mirko Schoenitz	West Windsor, NJ
Gina Raffaella Furnari	West Caldwell, NJ	Maria Shumskaya	Bronx, NY
Matthew Gardner	Ridgewood, NJ	Marc Sieka	Whippany, NJ
Michael Gerrity	Brick, NJ	Daniel Silverstein	Brooklyn, NY
Michael Giambalvo	Lindenhurst, NY	Marcin Sliwinski	Hatboro, PA
Shannon Giambra	Newton, NJ	David & Maude Snyder	Chesterfield, NJ
Peter Grannis	Stuart, FL	Baris Sonmez	Clifton, NJ
Barry Greenberg	Short Hills, NJ	Kathleen Stillo	Princeton, NJ
Anita Grochulski	North Arlington, NJ	Lena Struwe	Skillman, NJ
John Guibert	Burlington, NJ	Faith Studenroth	Bethlehem, PA
Glenn Gutkowski	Manalapan, NJ	Mary Subourne	Annandale, NJ
Gavin Hannah	Warwick, NY	Nancy-Jo Taiani	Glen Ridge, NJ
Becky Hedden	Manahawkin, NJ	Rachel Tall	South Orange, NJ
Heather Hunt	Allenwood, NJ	Susan Tiscornia	Pittstown, NJ
Katie Innomorato	Haddon Heights, NJ	Lynn Tobin	East Brunswick, NJ
Nila Jaghab	Frenchtown, NJ	Valery Tselinsky	Livingston, NJ
Kathryn Jannuzzi (O'Harra)	Middlesex, NJ	Patrick Underhill	Spring Lake, NJ
Maggie Kaczor-Bladek	East Rutherford, NJ	Mark Vandeven	Morristown, NJ
Mea Kaemmerlen	Plainsboro, NJ	Ronald Van Valen	Long Valley, NJ
Lois J. Guevara Keim	Milford, NJ	Alessa Vindas-Cruz	Kearny, NJ
Scott, Jennifer & Emma Kindler	Wantage, NJ	Christine Virag	Jackson, NJ
George & Nadia Kinigopoulo	Hillsborough, NJ	Dennis Waters	Lawrence Township, NJ
David Klaus	New Hope, PA	Dianna Wentink	Stuart, FL
Leonid Kopylov	East Brunswick, NJ	Jenelle Yearwood	Linden, NJ
Thomas Kovalcik	New Hope, PA	Svetlana Yershov	Fort Lee, NJ
John Kuhtik	Pittstown, NJ	Randy, Ruth & Tracy Youngster	Milltown, NJ
Krzysztof (Chris) Kurzyzna	Philadelphia, PA		

BYTES, BITS, & BITES (continued from page 10)

reply from Sue:

And was it any good? or should I stick to the new world tomato?

reply from Jim Richards:

It was very good-and completely different from any tomato-based ones. My suggestion is to have them both.

from Judy Glattstein:

Art foraged from mushrooms

<https://tinyurl.com/yatsmkmc>

from Chris Lemmond:

Not sure if you publish or keep a repository of “beauty shots,” but I thought this one in the woods by me on Sunday in West Windsor was impressive. Regards.



from Sue McClary:

Jim, another tidbit I did not know...

Children's author Beatrix Potter mushroom illustrator and more

<https://tinyurl.com/jd7tgcl>

reply from Jim Richards:

Thanks, I knew of her reputation as an illustrator of fungi and as an amateur mycologist. I was not aware of her interest in lichens – or that her reputation has been challenged.

more newsbits from Sue McClary:

Mushroom fossil records were shattered in 2017. At one point, Central New Jersey's was the source of one of only ten known mushroom fossils in the world. A 90 million year old mushroom fossil (*Archaeomarasmiis leggetti*).

<https://tinyurl.com/ybjkvbte>

Now a 115 million year old mushroom fossil (*Gondwanagaricites magnificus*) has been discovered in Brazil. It is the first and only mineralized mushroom fossil ever found. All other known mushroom fossils were amber inclusions.

<https://tinyurl.com/ybjkvbte>.

from the Editor:

The Secret History of Paris's Catacomb Mushrooms

<https://tinyurl.com/y7w4h2ho>

from The New York Times:

“Puff, the Magic Mushroom”

<https://tinyurl.com/y8ekj2x8>

from Judy Glattstein:

Forget pineapples on your pizza.

<https://tinyurl.com/y9usm8v7>

from The New York Times via Judy Glattstein:

The humongous fungus and how it got that way:

<https://tinyurl.com/y82xzl2k>

from Marcus Morreale:

Mushrooms and aging

<https://tinyurl.com/yavnhqj9>

from The New York Times:

“Fighting Climate Change, One Laundry Load at a Time”

<https://tinyurl.com/y97pg9kh>



If we value the pursuit of knowledge,
we must be free to follow wherever
that search may lead us.

The free mind is not a barking dog
to be tethered on a 10-foot chain.

—Adlai E. Stevenson

REPORT ON THE NJMA 2017 FORAY SEASON

by John Burghardt

In 2017, the New Jersey Mycological Association (NJMA) held forays at 15 locations in all areas of the state, representing New Jersey's diverse natural habitats. Weather and moisture conditions varied widely, but the participation of many interested mushroomers was a constant. Not surprisingly, we found and identified a lot of mushrooms.

Our early and middle season forays (May-August) are typically in the section of New Jersey to the north and west of US Route 1 which runs along a geological fault line separating the hilly sections of New Jersey from the coastal plain to the south and east. The rolling northwest of the state has a mix of hardwood trees – oaks, beech, hickory, and maple. Tulip poplars enter the mix in the southerly parts of this region. Hemlock, pine and birch mix with the other hardwoods in Sussex County. The southeast sector of New Jersey is coastal plain. Along the Delaware River and in Middlesex and Monmouth Counties, the forests are a mix of oak, beech, hickory, and tulip poplar with magnolia and sweet gum. The outer coastal plain has nutrient-poor, sandy soils, with pitch-pine-and-oak and oak forests, with stands of Atlantic white cedar near the headwaters of the areas many streams.

We had plenty of moisture and very good collecting conditions at the early May Princeton Institute Woods foray and the June foray at Stokes State Forest Lake Ocquittunk campground. Conditions were exceptional at our forays held in July and August – Wawayanda State Park (Passaic County), Meadowood Park (Morris County), Thompson Park/Helmetta Bog (Middlesex County), Weis Ecology Center (Passaic County) and Stokes State Forest/Kittle Field (Sussex County). For each of these forays, the sun was shining but the woods were moist from ample summer rains and plush-hard rains several days before it. Consequently, the fungi were bountiful.

Later in the season, as the mushroom fruitings begin to wane in the northern part of the state, our forays move south. This year we had a foray in September at Rancocas State Park (Burlington County near the Delaware River). Fungus Fest was our second chance in September to collect. But, it is not really a foray because members and visitors to Fungus Fest bring fungi to Morristown from all over the state. In October, we had forays at Ocean County Park (Lakewood), Brendan Byrne State Forest (Burlington and Ocean Counties), the Forest Resource Education Center (Ocean County), Wells Mill Park (Ocean County), and Belleplain State Forest (Cape May County). In addition, our 2017 Species List includes collections from Franklin Parker Preserve (FPP) (Burlington and Ocean Counties) where

NJMA has been conducting a survey since 2009 of the fungi at the invitation of the New Jersey Conservation Foundation. In 2017, we made 15 collecting trips to FPP, with at least one trip each month from January through November except for July when it was unusually hot and dry. Conditions were drier than normal at each of our southern foray locations, as well as at FPP for most of the year. Our last foray at Belleplain State Forest was held in driving rain, but the fungi had not had time to absorb the moisture, so we collected the fruits of dry conditions there, too.

The accompanying table (beginning on the next page) lists the species identified across all of our forays. It also includes a few collections identified only to genus, for a few genera in which no collection was identified to species. Beginning on January 7, readers will be able to download a more detailed table showing collections by foray location, plus separate totals for the foray sites north and west of Route 1 and for the sites south and east of Route 1, at www.njmyco.org/njmushrooms.html.

Overall, we collected 619 species including 56 that had not previously been identified at our forays. We made 362 collections north and west of Routes 1 and 427 to the south and east. Slightly less than 200 of all the species identified were found in both the Northwest and Southeast quadrants of New Jersey. So more than two thirds of the species identified were found only in the Northwest or only in the Southeast. This diversity reflects both the differences in the forests and habitats in the two regions, and the fact that most collecting in the northwest was done in early and mid-summer, while most collecting in the south was done in the fall. For example, all but two of the 12 *Tricholoma*, a genus that fruits in the fall, were collected at forays in the south.

Out-of-season collecting has much to recommend it if you live in an area free of snow for much of the winter, and you will enjoy the walk even if you don't find any fungi. I especially love the serendipitous aspect of winter collecting. Many times a winter walk will produce very few interesting fungi, or many little brown mushrooms that can't be identified. So you better enjoy the walk!! But, in 2017, 11 of the species new to the NJMA list were found on out-of-season collecting trips in January through May and November at Franklin Parker Preserve. Come to our January 7th meeting to learn which ones they are.



You have not been “seeing double!”

This issue of *NJMA News* is actually two issues merged. You did not miss the November/December 2017 issue – It was not published due to a number of circumstances.

Thus, this issue contains material that would have been in that issue, along with new content.

We are now back on track for future issues.

Thank you for your understanding.

NJMA SPECIES COLLECTED IN 2017

Species in **bold** are new to the NJMA list.

BASIDIOMYCETES

Abortiporus biennis	Aureoboletus innixus	Cerioporus varius
Acanthophysellum lividocoeruleum	Aureoboletus projectellus	Cheimonophyllum candidissimum
Agaricus arvensis	Aureoboletus roxanae	Chlorophyllum molybdites
Agaricus subrufescens	Auricularia auricula	Chroogomphus vinicolor
Agaricus vinosobrunneofumidus	Austroboletus gracilis	Clavaria cristata
Agrocybe praecox	Austroboletus subflavidus	Clavaria fumosa
Agrocybe vervacti	Baeospora myosura	Clavaria zollingeri
Alboleptonia subsericella	Bankera fuliginéalba	Clavariadelphus pistillaris
Amanita aestivalis	Baorangia bicolor	Clavulina cinerea
Amanita amerifulva	Basidioradulum radula	Clavulinopsis aurantio-cinnabarina
Amanita amerirubescens	Bjerkandera adusta	Clavulinopsis fusiformis
Amanita atkinsoniana	Bogbodia udum	Climacodon pulcherrimus
Amanita bisporigera	Boletellus chrysenenteroides	Clitocella mundula
Amanita brunnescens v brunnescens	Boletinellus merulioides	Clitocybe gibba
Amanita brunnescens v pallida	Boletus atkinsonii	Clitocybe metachroa
Amanita canescens	Boletus auripes	Clitocybe odora
Amanita cokeri	Boletus campestris	Clitocybe robusta
Amanita crenulata	Boletus edulis v edulis	Clitocybe truncicola
Amanita daucipes	Boletus illudens	Clitocybe vibecina
Amanita elongata	Boletus miniato-olivaceus	Clitocybula ocula
Amanita flavoconia	Boletus nobilis	Collybia cirrhata
Amanita flavorubens	Boletus oliveisporus	Collybia cookei
Amanita lavendula	Boletus pallidoroseus	Collybia tuberosa
Amanita longipes	Boletus pallidus	Coltricia cinnamomea
Amanita morrisii	Boletus sensibilis	Coltricia montagnei
Amanita muscaria v guessowii	Boletus separans	Coltricia perennis
Amanita persicina	Boletus subvelutipes	Coprinellus micaceus
Amanita pseudovolvata (nom.prov.)	Boletus vermiculosoides	Coprinus lagopus
Amanita rhacopus	Boletus weberi	Cortinarius alboviolaceus
Amanita rubescens v alba	Bondarzewia berkeleyi	Cortinarius armillatus
Amanita sagittaria	Bothia castanellus	Cortinarius bolaris
Amanita sinicoflava	Buchwaldoboletus hemichrysus	Cortinarius caperatus
Amanita solaniolens	Byssomerulius incarnatus	Cortinarius collinitus
Amanita spreta	Callistosporium purpureomarginatum	Cortinarius corrugatus
Amanita stirps Sororcula (formerly ceci)	Calocera cornea	Cortinarius distans
Amanita sturgeonii	Calocera viscosa	Cortinarius iodes
Amanita subcokeri	Calostoma cinnabarinum	Cortinarius lilacinus
Amanita submaculata	Calostoma lutescens	Cortinarius malicorius
Amanita subsolitaria	Calostoma ravenelii	Cortinarius marylandensis
Amanita velatipes	Calvatia cyathiformis	Cortinarius mucosus
Amanita williamsiae	Calvatia gigantea	Cortinarius sanguineus
Ampulloclitocybe clavipes	Cantharellula umbonata	Cortinarius semisanguineus
Armillaria gemina	Cantharellus cibarius	Cortinarius violaceus
Armillaria mellea	Cantharellus cinnabarinus	Craterellus ignicolor
Armillaria ostoyae	Cantharellus flavus	Craterellus fallax
Armillaria tabescens	Cantharellus lateritius	Crepidotus appianatus
Arrhenia epichysium	Cantharellus minor	Crepidotus crocophyllus
Artomyces pyxidata	Cantharellus tubaeformis	Crepidotus mollis
Astraeus hygrometricus	Cerioporus leptoccephalus	Crepidotus stipitatus
Aureoboletus auriporus	Cerioporus squamosus	Cryptoporus volvatus

NJMA SPECIES COLLECTED IN 2017

Species in **bold** are new to the NJMA list.

BASIDIOMYCETES (continued)

Cuphophyllus virgineus	Gymnopus alkalivirens	Inocybe tahquamenonensis
Cyathus stercoreus	Gymnopus confluens	Inonotus glomeratus
Cyathus striatus	Gymnopus dichrous	Inonotus hispidus
Cyptotrampa asprata	Gymnopus dryophilus	Irpex lacteus
Cystodermella cinnabarina	Gymnopus dysodes	Ischnoderma benzoinum
Cystodermella granulosa	Gymnopus erythropus	Laccaria amethystina
Dacrymyces chrysospermus	Gymnopus luxurians	Laccaria bicolor
Dacryopinax spathularia	Gymnopus semihirtipes	Laccaria laccata v pallidifolia
Daedalea quercina	Gymnopus spongiosus	Laccaria longipes
Daedaleopsis confragosa	Gymnopus subnudus	Laccaria nobilis
Deconica crobula	Gyroporus castaneus	Laccaria ochropurpurea
Deconica montana	Gyroporus purpurinus	Laccaria proxima
Dendrothele candida	Gyroporus subalbellus	Laccaria striatula
Dendrothele nivosa	Hapalopilus nidulans	Laccaria trullisata
Disciseda candida	Harrya chromapes	Lacrymaria lacrymabunda
Entolma unicolor	Hebeloma crustuliniforme	Lactarius affinis var. affinis
Entoloma abortivum	Hebeloma mesophaeum	Lactarius agglutinatus
Entoloma luteum	Helvellosebacina concrescens	Lactarius aquifluus
Entoloma rhodopolium	Hemileccinum subglabripes	Lactarius camphoratus
Entoloma sinuatum	Heterobasidion annosum	Lactarius chelidonium
Entoloma strictipes	Heterobasidion irregulare	Lactarius chrysorheus
Entoloma strictius	Humidicutis marginata v marginata	Lactarius corrugis
Entoloma subserrulatum	Humidicutis marginata v concolor	Lactarius deceptivus
Exidia repanda	Hydnellum concrescens	Lactarius deterrimus
Exidia recisa	Hydnellum ferrugineum	Lactarius griseus
Exsudoporus frostii	Hydnellum scrobiculatum	Lactarius hibbardae
Fibroporia radiculosa	Hydnellum spongiosipes	Lactarius hygrophoroides
Fistulina hepatica	Hydnellum suaveolens	Lactarius lignyotus
Flammulaster erinaceellus	Hydnum repandum v repandum	Lactarius maculatipes
Fomes fomentarius	Hydnum umbilicatum	Lactarius mutabilis
Fomitopsis spraguei	Hygrocybe acuticonicus	Lactarius oculatus
Galerina sphagnicola	Hygrocybe chlorophana	Lactarius paradoxus
Galerina tibiicystis	Hygrocybe conica	Lactarius piperatus
Ganoderma applanatum	Hygrocybe miniata	Lactarius proximellus
Ganoderma curtisii	Hygrocybe minutula	Lactarius psammicola
Ganoderma lobatum	Hygrocybe psittacina v psittacina	Lactarius subplinthogalus
Ganoderma sessile (=lucidum)	Hygrocybe punicea	Lactarius subpurpureus
Ganoderma tsugae	Hygrocybe squamulosa	Lactarius subvellereus v subvellereus
Geastrum fimbriatum	Hygrophorus hypothejus	Lactarius vinaceorufescens
Geastrum saccatum	Hygrophorus ponderatus	Lactarius volemus
Gerronema strombodes	Hymenochaete tabacina	Laetiporus cincinnatus
Gliophorus laetus	Hymenopellis furfuracea	Laetiporus sulphureus
Gliophorus (=Hygrocybe) irrigatus	Hymenopellis megalospora	Lanmaoa pseudosensibilis
Globifomes graveolens	Hymenopellis rubrobrunnescens	Leccinellum albellum
Gloeophyllum sepiarium	Hypholoma capnoides	Leccinellum crocipodium
Gloeoporus dichrous	Hypholoma elongatum	Leccinum longicurvipes
Grifola frondosa	Hypholoma fasciculare	Leccinum piceinum (=aurantiacum)
Gymnopilus liquiritiae	Imleria badia	Leccinum rubropunctum
Gymnopilus penetrans	Inocybe heimii	Leccinum scabrum
Gymnopus acervatus	Inocybe rimosa	Leccinum snellii

NJMA SPECIES COLLECTED IN 2017

Species in **bold** are new to the NJMA list.

BASIDIOMYCETES (continued)

Leccinum vulpinum	Neofavolus alveolaris	Psilocybe ovoideocystidiata
Lentinellus ursinus	Nidularia pulvinata	Psilocybe tubifera
Lentinula edodes	Nolanea murrayi	Pulveroboletus ravenelii
Lenzites betulina	Nolanea quadrata	Pycnoporus cinnabarinus
Lepiota cristata	Nyctalis asterophera	Radulodon copelandii
Lepista nuda	Omnia tomentosa	Ramaria formosa
Lepista subconnexa	Omphalotus illudens	Ramaria flava
Leptonia sp.	Oxyporus populinus	Ramaria fumigata
Leucocoprinus birnbaumii	Panaeolus papilionaceus	Ramaria stricta
Leucopaxillus tricolor	Panellus stipticus	Ramariopsis kunzei
Leucopholiota decorosa	Peniophora albobadia	Resupinatus alboniger
Loweomyces fractipes	Peniophora quercina	Resupinatus applicatus
Lycoperdon curtisii	Perenniporia subacida	Retiboletus fuscus
Lycoperdon marginatum	Phaeolus schweinitzii	Retiboletus griseus
Lycoperdon molle	Phallus ravenelii	Retiboletus ornatipes
Lycoperdon perlatum	Phanerochaete chrysorhiza	Rhizopogon roseolis
Lycoperdon pyriforme	Phellinus ferruginosus	Rhizopogon rubescens
Lycoperdon umbrinum	Phellinus gilvus	Rhodocollybia butyracea
Macrolepiota procera	Phellinus igniarius	Rhodocollybia lentinoides
Marasmiellus candidus	Phellinus robiniae	Rhodocollybia maculata
Marasmiellus ramealis	Phellodon tomentosus	Rhopalogaster transversarium
Marasmius capillaris	Phlebia radiata	Rickenella fibula
Marasmius cohaerens	Phlebia tremellosa	Rickenella swartzii
Marasmius delectans	Pholiota aurivella	Russula albonigra
Marasmius pulcherripes	Pholiota paludosella	Russula anomala
Marasmius rotula	Pholiota sphagnicola	Russula brevipes v brevipes
Marasmius strictipes	Pholiota squarrosa	Russula claroflava
Marasmius sullivanii	Phylloporus boletinoides	Russula compacta
Megacollybia rodmanii	Phylloporus leucomycelinus	Russula crustosa
Melanoleuca niveipes	Phylloporus rhodoxanthus	Russula densifolia
Meripilus giganteus	Phyllotopsis nidulans	Russula dissimulans
Multiclavula mucida	Piptoporus betulinus	Russula earlei
Multiclavula vernalis	Pisolithus arhizus	Russula flaviceps
Mutinus caninus	Pleurocybella porrigens	Russula flavisiccans
Mutinus elegans	Pleurotus dryinus	Russula foetentula
Mycena alphitophora	Pleurotus ostreatus	Russula fragiloides
Mycena delicatella	Pleurotus populinus	Russula fragrantissima
Mycena epipterygia	Pluteus cervinus	Russula granulata
Mycena galericulata	Pluteus petasatus	Russula heterophylla
Mycena galopus	Polyporus arcularius	Russula incarnaticeps
Mycena haematopus	Porodaedalea pini	Russula ionochlora
Mycena inclinata	Porodisculus pendulus	Russula laurocerasi
Mycena leaiana	Postia caesia	Russula mariae
Mycena megaspora	Postia sericeomollis	Russula modesta
Mycena pseudoinclinata	Postia tephroleuca	Russula mutabilis
Mycena rosella	Psathyrella delineata	Russula nigricans
Mycenastrum corium	Pseudoboletus parasiticus	Russula ochroleuroides
Mycetinus scorodonius	Pseudochaete olivacea	Russula parvovirescens
Mycorrhaphium adustum	Pseudohydnum gelatinosum	Russula perlactea
Myxomphalia maura	Pseudotricholoma umbrosum	Russula pseudolepida

NJMA SPECIES COLLECTED IN 2017

Species in **bold** are new to the NJMA list.

BASIDIOMYCETES (continued)	ASCOMYCETES
Russula pulchra	Ascocoryne sp.
Russula pusilla	Biscogniauxia atropunctata
Russula rubriceps	Bisporella citrina
Russula sericeonitens	Chlorociboria aeruginascens
Russula silvicola	Chlorosplenium chlora
Russula stricta	Coryne atrovirens
Russula variata	Daldinia childiae
Russula ventricosipes	Daldinia concentrica
Russula vesicatoria	Dasyscyphus sp.
Russula vinacea	Diatrype stigma
Sarcodon fuligineoviolaceus	Elaphocordyceps ophioglossoides
Sarcodon imbricatus	Galiella rufa
Sarcodon scabrosus	Geoglossum difforme
Sarcodon underwoodii	Gloeosporium minus
Sarcodontia setosa	Guepiniopsis buccina
Schizophyllum commune	Helminthosphaeria clavariarum
Schizopora paradoxa	Helvella crispa
Scleroderma areolatum	Helvella pezizoides
Scleroderma cepa	Henningsomyces candidus
Scleroderma citrinum	Hymenoscyphus calyculus
Scleroderma geaster	Hypocrea gelatinosa
Scleroderma septentrionale	Hypocrea sulphurea
Sebacina pululahuana	Hypomyces chrysospermus
Sebacina sparassoidea	Hypomyces hyalinus
Serpula lacrymans	Hypomyces luteovirens
Simocybe haustellaris	Hypoxylon fragiforme
Sparassis crispa	Kretzschmaria deusta
Sparassis herbstii	Leotia lubrica
Spongipellis unicolor	Leotia viscosa
Steccherinum ochraceum	Leucogloea compressa
Stereum complicatum	Microstoma floccosum
Stereum hirsutum	Mitrula elegans
Stereum ostrea	Mitrula lunulatospora
Stereum striatum	Mollisia cinerea
Stereum subtomentosum	Morchella diminutiva
Strobilomyces confusus	Morchella esculenta
Strobilomyces dryophilus	Nectria peziza
Strobilomyces strobilaceus	Otidea grandis
Stropharia kauffmanii	Otidea ontica
Stropharia rugosoannulata	Peridoxylon petersii
Suillus acidus	Peziza badioconfusa
Suillus americanus	Phaeocalicium polyporaenum
Suillus brevipes	Rhytisma sp.
Suillus decipiens	Sarcoscypha occidentalis
Suillus granulatus	Scutellinia scutellata
Suillus pictus	Septoria albopunctata
Suillus salmonicolor	Tarzetta bronca
Suillus spraguei	Trichoglossum hirsutum
Suillus subaureus	Trichoglossum walteri
Sutorius eximius	
Tapinella atrotomentosa	
Tephrocybe palustris	
Terana caerulea	
Tetrapyrgos nigripes	
Thelephora terrestris	
Thelephora vialis	
Trametes gibbosa	
Trametes hirsuta	
Trametes ochracea	
Trametes pubescens	
Trametes versicolor	
Trechispora christiansenii	
Tremella foliacea	
Tremella mesenterica	
Tremellodendron schweinitzii	
Trichaptum abietinum	
Trichaptum bifforme	
Tricholoma aestuans	
Tricholoma atosquamosum	
Tricholoma caligatum	
Tricholoma colossus	
Tricholoma equestre	
Tricholoma inamoenum	
Tricholoma magnivelare	
Tricholoma myomyces	
Tricholoma odorum	
Tricholoma pessundatum	
Tricholoma sejunctum	
Tricholoma sulphureum	
Tricholomopsis decora	
Tricholomopsis formosa	
Tubinellus floccosus	
Tylopilus badiceps	
Tylopilus ballouii	
Tylopilus felleus	
Tylopilus ferrugineus	
Tylopilus griseocarneus	
Tylopilus plumbeoviolaceus	
Tylopilus rhodoconius	
Tylopilus rubrobrunneus	
Tylopilus sordidus	
Tylopilus violatinctus	
Tyromyces chioneus	
Xanthoconium affine	
Xanthoconium purpureum	
Xanthoporus peckianus	
Xerocomellus intermedius	
Xeromphalina kauffmanii	
Xylobolus frustulatus	

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ASCOMYCETES (continued)

Vibrissea truncorum

Xylaria hypoxylon

Xylaria liquidambaris

Xylaria longipes

Xylaria polymorpha

MYXOMYCETES

Arcyria cinerea

Arcyria oerstedii

Ceratiomyxa fruticulosa

Fuligo septica

Hemitrichia calyculata

Lycogala epidendrum

Lycogala terrestre

Metatrichia vesparium

Physarum polycephalum

Stemonitis axifera

Syzygites megalocarpus

Tubifera ferruginosa

ZYGOMYCETES, UREDIOMYCETES

Endogone pisiformis

Cronaritum quercuum

Phycomyces blakesleanus



The results, published in the journal *Appetite*, revealed that there is a great difference in the satiety levels between eating mushroom and consuming meat. The study subjects said that they were less hungry, had greater fullness, and ate less after eating the mushrooms for breakfast in contrast to eating meat. These findings add to the increasing number of studies that prove the health benefits of mushrooms.

“Mushrooms may aid weight management and satiety, and thus contribute to overall wellness,” said Mary Jo Feeney of the Mushroom Council.

Feeney explained that it has become particularly important to find plant-based food sources that can be rich in protein and offer other health benefits as well.

Dementia is a general term for the degeneration in mental ability, which is severe enough to hinder the daily activities of a person, with Alzheimer’s disease being the most common type. In 2015, about 46.8 million people around the world were living with dementia, according to the Alzheimer’s Disease International.

Aside from the weight loss benefits of mushrooms, previous research found that eating mushrooms can help protect against dementia, according to a report by the *New York Post*. Researchers at the Malaya University in Malaysia studied 11 types of edible and medicinal mushrooms and their effects on the brains of mice. Their findings, published in *The Journal of Medicinal Food*, revealed that these mushrooms boosted the production of the nerve growth factor or NGF, which is essential in regulating growth, maintenance, proliferation, and survival of certain nerve cells in the brain.

“Regular consumption of the mushrooms may reduce or delay development of age-related neurodegeneration,” said Vikineswary Sabaratnam of Malaya University.

The researchers found that the mushroom called the Lion’s Mane can improve mild cognitive impairment, which can result to dementia in individuals aged 50 to 80 years old. Moreover, the mushroom known as *Cordyceps* was found to have anti-inflammatory effects that could help avoid memory loss through preventing death of neurons. In addition, Reishi mushrooms were found to enhance cognitive functions.

“Mushrooms might have the potential to be functional foods with neuro-protective and cognitive benefits,” Sabaratnam said. “Mushrooms contain diverse yet exclusive bioactive compounds that are not found in plants. It’s very likely a dietary intake of mushroom or mushroom-based extracts might have beneficial effects on human health and improve brain function.”

Sabaratnam and his team suggested that mushrooms can potentially be used to protect against the development of Alzheimer’s disease.



FEEL FULLER LONGER WITH FUNGI FOR BREAKFAST

RESEARCHERS SAY MUSHROOMS WILL HELP YOU LOSE WEIGHT AND FIGHT DEMENTIA

from *Brudirect.com*, November 2017, via *The Spore Print*, newsletter of the *Los Angeles Mycological Society*, December 2017

Fungi for breakfast? A new study suggests that eating mushrooms for breakfast keeps you from getting hungry, thus helping you lose weight, as reported by *The Daily Mail*.

Researchers from the University of Minnesota matched common mushrooms and meat according to their levels of protein, which is the most satiating macronutrient, and calories.

“Previous studies on mushrooms suggests that they can be more satiating than meat. But this effect had not been studied with protein-matched amounts until now,” Joanne Slavin, lead author of the study, said.

The researchers wanted to evaluate the differences of satiety and food consumption of either *Agaricus bisporus* mushrooms, also known as white button mushrooms, or meat. They fed 32 individuals, 17 women and 15 men, with either 8 oz. or 226g of white button mushrooms or 1 oz. or 283g of lean ground meat two times a day and monitored them for 10 days.