THE OFFICIAL NEWSLETTER OF THE NEW JERSEY MYCOLOGICAL ASSOCIATION VOLUME 50-3 MAY-JUNE-JULY 2020

NJMA OFFICERS

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

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115 E. Kings Hwy., Unit #348 Maple Shade, NJ 08052-3478

NJMA WEBSITE www.njmyco.org

Jim Barg, Jack Barnett, Bob Hosh

NJMA NEWS

Editor:

Jim Richards

211 Washington Street Hackettstown, NJ 07840-2145 njmaeditor@gmail.com

Art director:

Jim Barg

jimbarg@bssmedia.com

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All other correspondence should be sent to the Secretary:

Stefanie Bierman 407R Indiana Avenue Long Branch, NJ 07740-6119 steflowers@gmail.com

NJMA EVENTS HOTLINE

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



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PRESIDENT'S MESSAGE

The coronavirus outbreak has affected everyone, including NJMA.

The mushrooms will continue to grow, but will NJMA be able to have forays?

The Tina Ellor lecture (a mix of medicinal info, cultivation info, and history of mushroom growing in the US) was rescheduled to May 17, but we won't be able to keep that date. Jim Barg's Education class, "Field ID of Mushrooms" has been put on hold. The April 19th lecture with Christian Schwarz has been rescheduled until next year.

Nancy Addotta has stepped down as our Outreach Coordinator. Outreach is currently on hold. NJMA thanks Nancy for all the help she provided as its coordinator (and all the other great things she continues to do for NJMA). Sue McClary (who is also doing great things for NJMA) is willing to help any member who is interested in becoming the new Outreach Coordinator, when the time is right to reach out again.

Luke Smithson, our Education Chair, has provided us with a great list of educational mycological resources (via Tom Bigelow) which we can look at while waiting for this pandemic to end.

Exercise caution when in public, but the woodlands should be fairly safe from the corona virus. Some mushrooms are starting to come up in the woods (probably because of the warm winter), so you can get some exercise and see what mushrooms are fruiting.

- Frank Marra

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EDITOR'S NOTES

Most of you probably anticipated that this issue of *NJMA News* would be smaller than usual – just a few book reviews and a preview of what we might expect in the next few months. But the new books have been coming in, as well as articles from some of our members and gleanings from other club's newsletters, so this turns out to be a pretty standard size *NJMA News* after all.

You may have noticed that this issue covers the next three months. July has been added to May and June, the normal two months that volume three of *NJMA News* covers. The next issue will be for August, September and October. The last issue of 2020 will be the November/December issue.

February's Mycophagy session, our last event before the shutdown, was attended by almost 50 members. Recipes and photos are on *pages 12-15*. Luke very generously gave me the demonstration Mushroom Gratin from the session for the Culinary Group's Sampler. I still have it sitting on the bottom of my freezer, just waiting to be served when the group starts up again.

The Myco-auction was successful as well, with sales of almost \$600 for myco-memorabilia, art, dried and fresh mushrooms, etc.

All lectures and programs through July have been cancelled or rescheduled, including the lectures by Robert Blanchette, Christian Schwarz, and Tina Ellor, the workshops with Jim Barg and John Burghardt, the Culinary Group's "Mushroom Sampler", the Vic Gambino Foray, the morel foray in Princeton, and the Wild Foods Foray. We are hoping that the forays and events from July on will be held, but that is still uncertain.

I know that most of you will still be out in the woods collecting, just not in large groups as is normal with forays. Forays are problematic in that it is impossible to maintain a distance of six feet between people, either on the trails and, especially, at the ID tables. When you have interesting finds, please photograph them and share with the group via *NJMA News* and not just on Facebook! Many of our members do not use Facebook, but we all get the newsletter. If you share on Facebook you may contact 25 or 30 NJMA members; when you send articles, photos, recipes, etc. to *NJMA News*, they are shared with all +/- 400 members. Your submissions do not have to be long: a photo, a paragraph, a memory! Send them to *njmaeditor@gmail.com*.

– Jim Richards





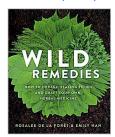






BOOK REVIEW WILD REMEDIES: HOW TO FORAGE HEALING FOODS AND CRAFT YOUR OWN HERBAL MEDICINE

a review by Gary Makus



Wild Remedies: How to Forage Healing Foods and Craft Your Own Herbal Medicine

by Rosalee de la Forêt and Emily Han Hay House Inc.; 1 edition (April 7, 2020) 304 pages

ISBN-10: 1401956882 ISBN-13: 978-1401956882

I would definitely recommend this very colorful text for youth and for people who desire to live healthier, more natural lives. There is almost a philosophical outlook, perhaps that of finding who you are in nature. The book is very gestalt as compared to other writings on the subject. In reading it, you may recall Back to Eden, or how some indigenous peoples live in forests with a reverence for nature and sustainability; even thanking the plants for their gifts. You may envision the comparison of how we live today to that of colonial peoples who had their own gardens including vegetables, spices, herbs, and medicinal plants. Today, we don't eat fresh local food and we definitely don't have a clue as to how the foodstuffs we purchase were treated. The food in today's market is generally not grown naturally organically, which means it essentially has surface and systemic pesticides. It is grown in depleted soils with few of the nutrients replaced to make nutrient rich, good tasting food with all the medicinal qualities the plant can offer. The authors make suggestions about soil care, and living off both your own garden and what you find growing naturally outside. The later is termed wildcrafting or foraging.

Take a walk in the woods. Relax. Reduce your stress. Commune with, rather than separate from, nature. You are part of nature. Learn what plants have to offer. Your relationship with plants is personal. Some will be your favorites. These are the ones for you and may not be for someone else!

Now to get to what I, hitherto, called the core of the book, the plants. But I think the authors' training our attitudes toward nature is the crux. I count 25 plants (berries, weeds, herbs) that are each covered through five parts of the year. You can start with the part of the year you find yourself currently in. Each of the selected plants is described in detail: ID, medicinal properties and energetics, plant gifts, ecological connections, how and what to harvest. The "how to use" sections include a few recipes. The plant descriptions are common to our area and better than in most other books.

The book comes with an online workbook (journal) to learn (or actually relate to) plants, one by one.

INTRODUCING **TAXONOMY TUESDAYS:** WEEKLY TAXONOMY SESSIONS ON ZOOM

by Luke Smithson, NJMA Education Chair, mycofreak74@gmail.com

Since we cannot meet in person to show off our fungal finds, let's meet online. NJMA has begun hosting weekly taxonomy and identification sessions on Tuesday evenings.

Participation is simple, and everyone is encouraged to attend. Please prepare by having photos of your week's fungal finds on your computer, on iNaturalist or Mushroom Observer. We will take turns sharing our screens and discuss everyone's fungi. Clear photographs of your specimen from various vantage points, spore prints and any relevant details (odor, habitat, etc.) will help in determining a correct identification.

We will email the weekly links to our members who have email addresses in our membership database. Please join us whether you have any fungi to discuss or not! If you can't get online, or can't use Zoom on your device, you can do an audio call-in on your phone to follow along. The phone number will be included in the email with the links.

Give yourself enough time to sign in so we can start promptly at 7:00pm. Follow the link provided each week. We will go over Zoom etiquette and help each other learn the basics of using Zoom. Then we can dig in and look at our mushrooms!!!

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 n e. 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.

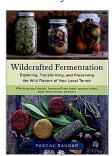
CANCELLATION OF THE **NEMF FORAY 2020**

from www.nemf.org (with revisions)

Due to the health crisis caused by the COVID-19 outbreak and the measures presscribed by the health authorities that will probably limit large gatherings for some time to come, the CMM (Montreal club) has had no choice but to cancel the annual foray, which was scheduled to take place in Joliette in September of this year. However, after discussions with the FQGM (Rimouski club) and the MMS (Maine club), the CMM received the go-ahead to organize the event in Joliette in 2021 instead. Keep your fingers crossed and watch the CMM website, *http://www.mycomontreal.qc.ca/*, starting on April 1, 2021.

BOOK REVIEW WILDCRAFTED FERMENTATION

a review by Nathaniel Whitmore



Wildcrafted Fermentation: Exploring, Transforming, and Preserving the Wild Flavors of Your Local Terroir

by Pascal Baudar

Chelsea Green Publishing (March 12, 2020) 304 pages

ISBN-10: 1603588515 ISBN-13: 978-1603588515

Wildcrafted Fermentation combines two of my favorite subjects: wildcrafting and fermentation.

My biggest critique of the book is that many of the recipes are obviously and admittedly experimental.

I suppose this is hard to avoid with such a unique subject.

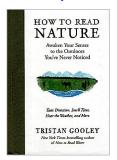
Wildcrafted fermentation is mostly an unknown subject that is only beginning to emerge today. This is ironic because fermenting wildcrafted foods is one of the oldest methods of bringing food to the table. And this brings me to my primary praise of the book: This information is needed!

Baudar starts with some basic information on fermentation. The beginner will find much explained and the basics well-presented. Those readers who wish to learn more will have to dig deeper into other references as this is primarily a cook book. His recipes do offer lots of explanation, information, and anecdotes. I suspect that many will find more pleasure in reading the recipes than in actually making the ferments and eating them. There is simply so much offered that I can't imagine many in today's fast-paced, convenience food world getting as deeply into fermentation and wildcrafting as the author has. However, this is the kind of book that offers many gems and if even a little bit can be taken away from it one's diet will likely improve.

I think readers will be inspired by the simple methods and accessible ingredients to find new ways to incorporate fermented foods into their diets. Recent years have given so much attention to the importance of probiotics. It is time for people to take the matter of probiotics into their own hands, rather than dishing out more money to the supplement industry. Of course, supplements have their place, but the primary way to support probiotic flora is through food. Modern Americans do not collectively know much about fermentation. This book is a remedy to that lack of knowledge and practice.

HOW TO READ NATURE

a review by Robert Saunders



How to Read Nature: Awaken Your Senses to the Outdoors You've Never Noticed

by Tristan Gooley

The Experiment, LLC (October 3, 2017) 176 pages

ISBN-10: 1615194290 ISBN-13: 978-1615194292

This is a small book that seems designed to be inspirational more than instructional. Definitely not a field guide. The author is a cheerleader for getting out into nature. It is more approachable, enjoyable, and understandable if we do not try to swallow it whole, but break it down into its ingredients. Use our senses to the max. Observe the individual relationships between soil, water, and weather that make up terrain. Distinguish the conflicts and cooperations between animals, plants, fungi, terrain, and climate that make up the different habitats. Then our experiences outdoors become richer.

The author includes some simple exercises to help improve our perception of nature. For example, he suggests a short walk, followed by writing down things observed. Then repeat the walk, noting everything that does not move. They will be markedly different because our eyes are designed to notice motion. Motion indicates predator or prey, and we evolved to see them first. Gooley has also written a book, and teaches classes in the UK on "Natural Navigation" — finding your way with guides from the sun, moon, stars, wind, clouds, plants and animals. These ideas are carried into this book. He does not refer to the old saw about moss growing on the north side of a tree, but has several tips in that vein. He encourages us to always know in which direction we are facing based on natural clues.

Once we have sharpened our senses, he moves on to lay out some of the relationships that define the habitats that make up the natural world. Soil (acidic or alkaline, porous or not, moist or dry), water (much or little, standing or moving), altitude, season, even time of day all determine a habitat and the plant and animal life that thrives and/or struggles there. Looking for these details gives us much more to appreciate during a simple walk. He also points that conflict is a basic, necessary process of nature, as much as cooperation. He gives examples, such as the expansion of imported grey squirrels throughout the UK which has made red squirrels endangered. Another example is the decimation of the American Elm tree by Dutch Elm Disease.

All these relationships are particularly pertinent to

(continues on next page)

mushroomers. Like all living things, every fungus has a preferred habitat. But habitats are more complex than we usually consider. We have a lot to learn.

This book offers the beginnings of some valuable insights to expand our relationship with nature. There are also some tips and exercises that help. However, they consist basically of generalities, simple exercises and tips, rather than covering any subject in enough detail to learn it well.

BOOK REVIEW FUNGI OF TEMPERATE EUROPE

a review by Marical Patino



Fungi of Temperate Europe Volume 2

by Thomas Laessoe and Jens H. Petersen Princeton University Press, 2019 817 pages

ISBN-10: 0691180377 ISBN-13: 978-0691180373

I was lucky to get to review Volume Two of Fungi of Temperate Europe by Thomas Laessoe and Jens H. Petersen. Volume One has 817 pages and it includes the gilled, veined and wrinkled fungi plus the boletes. Volume Two has 821 pages and includes a wide range of Genera: Polypores (brackets and resupinates, pored fungi on fertile surface e.g. Trametes, Phellinus, Ischnoderma), crusts (resupinate and effuso-reflexed, smooth, odontoid, wrinkled, spiny, cottony or warty on fertile surface e.g. Phlebia, Tomentella, Athelia, Xylobolus, Stereum), hydnoids (e.g. Hydnum umbilicatum), Cyphelloids (e.g. Heningsomyces candidus), Clavarioids (e.g. Ramaria stricta), Dacrymycetales, rusts and smuts, Exobadidiales (e.g. Exobasidium vaccinii), Nidulariaceae (bird's nests), Gasteroids (puffballs and allies), stinkhorns, truffles, Operculate cup fungi (e.g. Scutellinia scutelata), Morels and allies (e.g. Sarcosoma, Helvella, Peziza), Inoperculate fungi (earth tongues), asexual fungi, Mitrula species, Gelatinous (e.g. Ascocorine, Exidia, Tremella), Hairy cups, Lichens, longstemmed cup fungi (e.g. Mollisia, Bisporella), Erumpent cups (Rhytisma), Mildew (Aspergillus), Cleistothecial fungi (e.g. Onegina cervina on horns), Pyrenomycetes (e.g. Hysteorid, Hypoxilon, Xylaria, Hypocrealea) and others (e.g. Hypomyces, Nectria, Claviceps, Cordyceps), Enthophthorales (E. muscae on flies), Slime molds (e.g. Ceratiomyxa, Fuligo septica, Stemonites, Arcyria, Tubifera), and Hypomycetous (e.g. Penicillinum).

The fungi have been organized into groups of morphologically similar fungi, Form Groups, that can be recognized with the naked eye or with a hand lens. This doesn't mean that these fungi are necessarily related. Volume Two includes the Basidiomycota e.g. *Hydnum repandum*, *Phlebia radiata*, *Clavaria pyxidata*,

Scleroderma citrina, Phellinus robustus, Trametes betulina and Antrodia serialis, Ascomycota (e.g. Morchella esculenta, Helvella crispa, Xylaria cubensis and Peziza badia), and Asexual fungi (e.g. Trichoderma viridis) and Slime molds (e.g. Fuligo septica).

Fungal Wheels are the key feature of the books. Wheels are organized based on how the sexual spores are produced, making it belong to Form Groups above. This explanation appears in Volume One.

When looking at the Fungal Wheels, you see that on the outer ring, there are photos of the fungi, usually presenting genera or group names, *e.g.* Polypores with stem and the like: Coltricia, five species, page 843. Few details follow below it, with concentric zones and thin felty covering, followed by a drawing of the spore shape (in case you do microscopy) then you go page 843 and read about a few Coltricia species. In the description there is a comparison between different species, *e.g.* bigger or smaller spores than ..., size of pores if present (how many per mm), appearance, bruising or staining facts, occurrence (this is a European book), substrate (sometimes a species is defined by the kind of wood it is growing on, conifer or hardwood), and season (when is it more likely you will find a particular species.)

Even though this book is about the fungi of temperate Europe, I find it very useful because it includes many genera and species found in North America. Even though most species are not native to North America, the book is very instructive and a great tool for learning the incredible variety of fungi that grow around us. I recommend anyone really interested in learning about fungi on a broader scale to purchase it. I bought mine on Amazon, used (impeccable) at a modest price. There are also other sites where you can find it. I have some additional good news: The PDF is available online at https://www.scribd.com/document/432896932/FungiOfTemperateEurope-Wheels.

You can also find an in-depth review with photos at https://travelswithbirds.blogspot.com/2020/01/book-review-fungi-of-temperate-europe.html.

(*Editor's note: Fungi of Temperate Europe* is a two-volume publication. Volume One covers Chanterelles, Agarics and Boletes, as well as a general introduction to studying fungi. Maricel's comments on Form Groups and Fungal Wheels apply to both volumes. For that reason, we felt it was unnecessary to have a separate review of each volume.)



WHO'S IN A NAME? Phallus drewesii

by John Dawson (seventy-eighth in a series)

Phallus drewesii is a lignicolous stinkhorn discovered in 2006 on São Tomé, an island in the Pacific west of Gabon

that has never been connected to the African continent and is home to many species of plants, animals and fungi found nowhere else.1 It was named for Robert Clifton Drewes, Emeritus Curator of Herpetology at the California Academy of Sciences.



Robert Drewes holding his namesake

Drewes, now 78, grew up in San Francisco near Golden Gate Park, where the California Academy of Sciences is located. Like many of those profiled in this series he began collecting natural history specimens as a child, and he recalled that even as a toddler he was drawn to the Academy's display of fluorescent minerals. The greatest attraction for him, though,

was the Academy's African Hall, which had been built under the guidance of his great-uncle, Norman B. Livermore, the chair of the Academy's Board of Trustees during the Depression and World War II.2

Eventually, Drewes's interest in animals. especially African snakes and frogs, would become the basis of his life's work. His parents, however, expected him to become a doctor, lawyer or

businessman, so in deference to them he dutifully enrolled as a pre-med student at Northwestern University, where he did not do well and ultimately flunked out.

In the wake of that failure he joined the US Army Special Forces, and after serving one tour of duty with them, he returned to San Francisco to marry his childhood sweetheart and enroll at San Francisco State University. He began there with a major in psychology, a subject he found to be "intuitive and easy." But at the same time he

began accumulating in his apartment a menagerie of exotic pets (including, besides several reptiles, two monkeys and a coatimundi) that his wife helped him to care for. One day she asked him, given his fascination with animals, "Why on earth are you studying psychology?,"3 at which point, he switched to biology. He received his undergraduate degree from San Francisco State in 1969 and his Ph.D. in biology from UCLA in 1982.4 In the interim, between those degrees, he was employed in various positions by the Department of Herpetology at

the California Academy of Sciences.

During his career as a herpetologist, Drewes made many trips to Africa to study the reptile fauna there. In 2006, he joined an interdisciplinary expedition to São Tomé led by his longtime friend Dennis Desjardins, a mycolo-

> gist who is Professor of Biology at San Francisco State. Drewes searched for frogs there while Desiardins undertook to inventory the island's fungi, tasks that urgently needed to be done due to the threat to the island's ecology posed by the recent discovery of oil offshore.



Phallus drewesii

It was Desjardins who discovered the new stinkhorn and proposed to name it in tribute to Drewes — if Drewes agreed; for as shown in the photograph reproduced here⁵ (showing the orientation in which it was found), Phallus drewesii does not grow upward, but droops limply to the side. Only two inches long, it is also the second smallest stinkhorn known. So one might well balk at having a

(continues on next page)

¹ In 2016, Phallus drewesii was also reported from Vietnam (Trierveiler-Pereira L, Thao, "Update on the distribution of Phallus drewesii (Phallales, Basidiomycota): new record from Asia" Mycosphere 4(5), 994–997).

² https://www.calacademy.org/learn-explore/science-heroes/robert-drewes, from which the photo of Drewes reproduced here was also taken.

³ https://www.paloaltoonline.com/news/2010/01/29/feature-story-a-lifetime-of-scaled-adventures

⁴ According to his curriculum vitae, available at https://www.calacademy.org/sites/default/files/rcdrewescv.pdf

⁵ Taken by Brian A. Perry, Desjardins's student and co-author of the 2009 paper in which *Phallus drewsii* was formally described ("A new species of Phallus from São Tomé, Africa", Mycologia 101:4, 545-547). Reproduced here from https://blog.nationalgeographic.org/2009/06/15/phallus-shape-mushroom-named-after-california-scientist/.

⁶ Quoted in Science Daily (https://www.sciencedaily.com/releases/2009/06/090615144215.htm).

fungus named after you that looks like a tiny flaccid penis. Drewes, however, was delighted: "It's a wonderful honor and great fun to have this phallus-shaped fungus named after me," he said, for "I have been immortalized in the scientific record."

In fact, two other species had already been named after him: a Kenyan blind worm snake, *Leptotyphlops drewesi*, and a South African moss frog, *Arthroleptella drewesii*. But as Drewes recognized, apart from herpetologists, posterity will likely remember him less for his own accomplishments than for a taxonomic eponym in a field to which he never contributed.



from Sue McClary:

Tolypocladium fungus snuffs out skunk smell: https://tinyurl.com/y6cehlt2

from Sue McClary:

New test to detect amanitin toxin from mushrooms: https://tinyurl.com/t5c8j2j

from the Editor:

Should I buy presliced mushrooms? https://tinyurl.com/tuf6rsn

from the Editor:

What it is like to hunt truffles in Tuscany: https://tinyurl.com/uupwjca

from Sue McClary:

How to eat mushrooms on toast:

https://tinyurl.com/tpzmuxz

from Lyla Meader:

Forest Fungi Ride Out Wildfires by Hiding Inside Plants:

https://tinyurl.com/u6fouc9

from Sue McClary:

Mushroom industry impacted by coronavirus: https://tinyurl.com/vf7n8ll

from Sue McClary:

Health benefits of mushrooms:

https://tinyurl.com/vmguky6



Mushroom Ketchup

Reprinted from Mainely Mushrooms, newsletter of the Maine Mycological Society, issue #34-4.

Bob Pinette suggested this link on how to make mushroom ketchup: https://www.youtube.com/watch?v=29u_FejNuks.

I went looking for a recipe in Britain's Wild Larder, Fungi by Claire Loewenfeld, Faber and Faber Ltd, London, 1956. The book is part of a series on wild foods taken from leaflets printed during WWII, when the British suffered with food shortages, to educate the populace on the nutritional value of wild foods. Dr. John Ramsbottom was a consultant. But, this is what Loewenfeld had to say about both pickles and ketchup: "These two are probably the most English ways of preserving fungi; pickles are considered a national dish. In this book, however, the use of vinegar and strong spices is discouraged, as their strong flavor tends to blunt the palate. Experience has shown that this prevents the enjoyment of the gentler flavors of fruit and salads. As using vinegar and spices is also one of the 'habit forming vices', it is not even advisable to use them occasionally, particularly if children are eating at the same table. Recipes for pickling fungi and making ketchup are therefore omitted. For those who think that 'a little of what you fancy does you good, they can be found in most English cookery books." So there! Was she the founder of the much maligned bland food movement in England? Well then, I moved on to The Good Cook, Preserving, Time-Life Books, 1981, revised 1984. This series of cookbooks has a wealth of information on techniques and recipes, edited by North American and European cooks, and are well worth searching out. Richard Olney was the chief series consultant. There are recipes for blackberry, wild plum, lemon, oyster, apple, and others, including tomato, the usual ingredient we associate with ketchup.

English Ketchup

This recipe for ketchup is taken from a book published anonymously in 1758, but generally attributed to the English cookery writer Hannah Glasse. The original version calls for "strong stale mummy beer," meaning beer that has almost turned to vinegar. Today, ordinary vinegar should be used. To make about 2½ pints:

6 lb. mushrooms, broken into pieces (about 7½ quarts)
1 cup salt
2½ cups vinegar
20 salt anchovies
1 tsp. ground mace
1 tsp. ground cloves
1 tbs. pepper
1 slice fresh ginger
1½ cup shallots, sliced

CALENDAR OF UPCOMING EVENTS

ALL NJMA EVENTS HAVE BEEN CANCELED OR POSTPONED DUE TO THE COVID-19 OUTBREAK!

Keep an eye on the NJMA website, *www.njmyco.org*, and your email, for information on events if they open up or are rescheduled.

CAPTURING FUNGI: PHOTOGRAPHY TIPS FOR GREAT IDENTIFICATIONS

by Jess Benson Evans and Sue Lancelle (of the Pioneer Valley Mycological Association)

Increasingly, it's looking like our season this year will be a more solitary one. We'll have fewer opportunities to gather together, perhaps, but there are still plenty of ways to enjoy and study fungi this summer. We'll both be spending as much time as possible out in the woods beyond our homes, documenting and collecting mushrooms for later study. This is a great way to take part in citizen science: photographing, documenting, and sharing great descriptions of fungi on either *Mushroom Observer* or *iNaturalist*. Even if you are simply posting your observations on our Facebook page, it is important to properly document your finds, especially if you are asking for help with an identification. For example, one photo of just the top of a mushroom cap will not, in most cases, result in a reliable identification.

Whether or not you're interested in sharing your observations online, taking photographs and writing descriptions of your collected mushrooms will enhance your own knowledge and observational skills, and help you come up with an ID. The first step is taking detailed photographs, and here are a few tips to accomplish this.

When taking photos, direct or bright sunlight is actually not preferred! Bright sunlight can wash out the colors and details of your mushroom. Shade or cloudy days are better for photography, or you can try to shade your mushroom with your own body (or a trusted assistant!) while taking the photo.

Your goal in taking photos of your finds is to properly document the things that are necessary for identification. This includes all parts of the fungus: upper and lower surfaces of the cap, the main part of the stem, and the stem base. It also helps to include a ruler in one of the pictures, or otherwise note in your description the size of the specimens you are photographing. Arrange the mushrooms at different angles to capture all the features (*figure 1*). Take close-up shots of key features such as the gills, pores, or any ring or bulb (*figures 2*, 3). For certain fungi such as Amanita species, it is particularly important to dig down and carefully get to the bottom of the stem; the morphology of the stem base and any other surrounding tissue can be crucial to determining which species you have (*figure 3*, 10). Be

sure to capture any other stem details as well. In boletes and some gilled mushrooms, this includes not only stem shape and color, but also possible ornamentation: are there reticulations, pits, scabers, etc.? See *figures 4* and *5* for examples.

Also document whether the pores or gills bruise, exude any liquid and if so, what is the color. *Figure 6* shows the bruising of the pores of the bolete *Boletus sensibilis* and *figure 7* shows the blue latex typical of the beautiful *Lactarius indigo*.

The flesh of the fruiting bodies can stain as well when you cut them open (*figures 8* and *9*). The color of the staining is an important character to note.

Sometimes it's necessary to clear away humus or debris to see all the features of the mushroom. It's okay to do this, just be careful not to brush away fragile clues such as the bright yellow remnants of the universal veil in *Amanita flavoconia* (*figure 10*).

Take a photograph of the mushroom in its surroundings. For example, if there are pine trees present, try to capture a picture of the mushroom with pine needles nearby. *Figure 11* shows *Retiboletus ornatipes* with acorns, indicating the fungus grows under oak trees.

Another character that helps tremendously with ID is a spore print. To make one, remove the cap portion from the stem and place it on white paper. Cover with a bowl or glass until you get a print. It may take as long as overnight, or it could happen in an hour! Sometimes it doesn't happen at all if the cap is not at the right stage of maturity. Try to photograph it to capture the color as accurately as possible. *Figure 12* is the bright pink spore print of *Psathyrella conissans*, an unusual characteristic that helps to identify this species.

If you can't get photographs of all of these characters, take careful notes and include them with the description you post.

Ultimately, your goal is to take quality photographs of fungi for your own benefit in later identifying and describing them. The more clues you can capture at the time you find a mushroom, the more information you have later to help you identify it. Please consider sharing all of your carefully documented finds on our club's Facebook page – we are really looking forward to seeing what everyone finds, and it will be a great way to stay in touch!

(Referenced figures are on the following pages)



Figure 1. Cortinarius armillatus arranged to show all of the salient features.



Figure 2. A detailed view of the underside of the cap, cap edge, and upper stem of Amanita volvata.



Figure 3. The split or "cleft" bulb at the base of the stem of Amanita brunnescens is a distinquishing characteristic of the species. It is important to document the stem bases of all Amanita species you encounter.



Figure 4. Details of the stems of various boletes. Left, the shaggy stem of Aureoboletus russellii. Middle, reticulations on the stem of Tylopilus felleus. Right, Scabers on the stem of Leccinum holopus.



Figure 5. Pits or "scrobiculations" on the stem of Lactarius subpurpureus.



Figure 6. The dark blue bruising properties of the pore of **Boletus sensibilis**.



Figure 7. Blue latex on the gills of Lactarius indigo. Also note the rings (zonation) on the cap; this is an important detail to use in the identification of certain Lactarius species.



Figure 8. The flesh of Lactarius indigo stains a bright blue when you slice it open.



Figure 9. The flesh of **Boletus sensibilis** also stains a bright blue upon cutting. How quickly and extensively this staining may occur in boletes are important characters to document.



Figure 10. This image of Amanita flavoconia shows the annulus just separating from the cap edge, as well as the fragile, flaky yellow remnants of the universal veil next to the base of the stem.



Figure 11. Retiboletus ornatipes photographed with acorns, an indication of the associated trees.

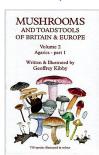


Figure 12. The unusual bright pink color of the spore print of **Psathyrella conissans** helps to identify this species.

BOOK REVIEW

MUSHROOMS AND TOADSTOOLS OF BRITAIN & EUROPE

a review by Liz Broderick



Mushrooms and Toadstools of Britain & Europe, Volume 2

by Geoffrey Kibby

28 February 2020 188 pages

ISBN-10: 1999885708 ISBN-13: 978-1999885700

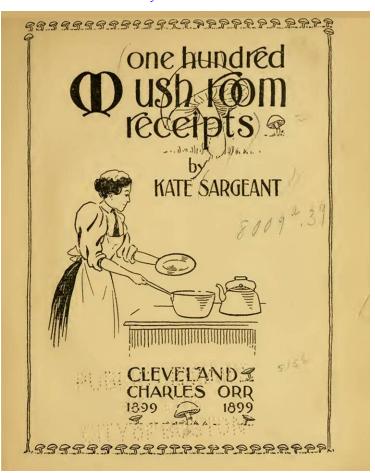
The author of this book is Geoff Kibby, a professional mycologist from Britain who may be familiar to some of our longtime members. Geoff was a past president of the New Jersey Mycological Association during the late 1980s while he lived in our state for 6 years. He collaborated with our beloved Ray Fatto on the definitive key to the genus Russula east of the Mississippi. Many of us continue to use this key to help narrow down ID's in this complicated genus. He currently lives in Britain where he is the senior editor of the journal *Field Mycology*.

This book is the second of a three volume set that will describe the fungi of Britain and Europe. Volume 2 concisely covers 750 species of gilled mushrooms with white or pinkish spore colors in only 188 pages. The author's extensive knowledge of mycology, and his artistic ability shine throughout the book. The beautiful illustrations were created using an iPad Pro and an Apple Pencil 2, but they look like carefully painted botanicals. The visual key, glossary and illustration of different structures of gilled mushrooms in the front of the book could get even beginners on the right track with identification. Spore color is indicated on the top right corner of each page. Because there is so much variability in photographs of individual sporophores, drawings that highlight key features of each species are extremely helpful. The narrative descriptions on the adjacent page clearly describe each species' structures including cap and stem types, gill attachments, habitat, spore color, shape and measurements. For those of us who use a microscope to help with identification, the illustrations of spore shapes and ornamentation are very helpful. Although data on edibility is not described, symbols for toxic or possibly fatal species are added next to the illustration. The index includes both genus and species to help quickly locate a species within the book. Members of NJMA can borrow autographed copies of Volumes One and Two from our club library by contacting Jim Richards. (njmalibrary@gmail.com)

The only downside to this guide, from my perspective, is that it covers only the fungi of Britain and Europe. I wish mycologists who publish books on North American species would adopt this format for future publications. If Geoff Kibby would consider writing book on the Russulas of the eastern US, I would buy it.

A BLAST FROM THE PAST "ONE HUNDRED MUSHROOM RECEIPTS"

discovered and submitted by Mike Rubin



PREFACE.

Owing to the present popular interest in the subject of mushrooms, and to the fact that there is no cook book devoted exclusively to them (most cook books having only a few receipts, usually for cooking the common mushroom.), it would seem that a collection of receipts like the one here offered to the public would meet with favor.

The idea of arranging such a book was suggested to the compiler by several persons unknown to each other, who knew her interest in mushrooms in this relation to the cuisine.

To my own receipts I have added those collected from friends, and from the different books, English and American, on the subject. Many of the receipts may be changed to suit the individual taste, and if one has not enough of one variety a mixture will often make a very palatable dish. I have heard of as many as six varieties cooked together.

I have made no attempt to describe the edible, nor to warn against the emetic and poisonous kinds. To do so would require too much space, and besides, such knowledge is to be presumed.

I am greatly indebted to Mr. Wm. Knox, President of the Mycological Club of Cleveland, for his introduction to this book. Mr. Knox's well-known enthusiasm for this subject and his kindly interest have been helpful to many.



NJMA Mycophagy 2020

Mushroom Gratin

Yield: 1 gratin/casserole dish, about 8-10 servings *Recipe credit: Jamie Hollander Gourmet Foods*

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3 1/2	lbs.	White (button) Mushrooms
1/2	lb.	Oyster Mushrooms
1/2	lb.	Maitake Mushrooms
1/2	cup	Parsley
1/4	cup	Thyme
1/4	cup	Onion Powder
1/4	cup	Garlic Powder, granulated
1/4	cup	Canola Oil
1	cup	Onion; yellow, medium dice
8	oz.	Gruyere, grated
3		Eggs
1 1/2	cups	Oats; Old Fashioned
		Salt & Pepper, to taste

Method:

- 1. Mix mushrooms with herbs, seasonings, and oil.
- 2. Roast for 15-20 min. @ 400 degrees in oven or until mushrooms are golden brown; mushrooms should be fully cooked and dry.
- 3. Sauté Onions until translucent.
- 4. Mix cooked mushrooms, onions, 5 ounces gruyere, eggs, & oatmeal. Reserve the remaining gruyere for next step.
- 5. Pack in greased gratin dish, sprinkle remaining gruyere on top
- 6. Cover and bake for 45 minutes in @375 F oven
- 7. Remove cover and bake for additional 15 minutes. Place under a broiler for several minutes if a deeper browning is desired but be careful and don't burn it!

^{*}Any combination of fresh mushrooms can be used...this recipe is a great way to utilize excess quantities of mushrooms.

Black Trumpet and Fig Ice Cream

Yield: 1.25 qt

Recipe credit: adapted from Jacques Torres and Mary Smiley

Ingredients

1/2 cup dried black trumpets

2 cups whole milk

1 cup heavy cream

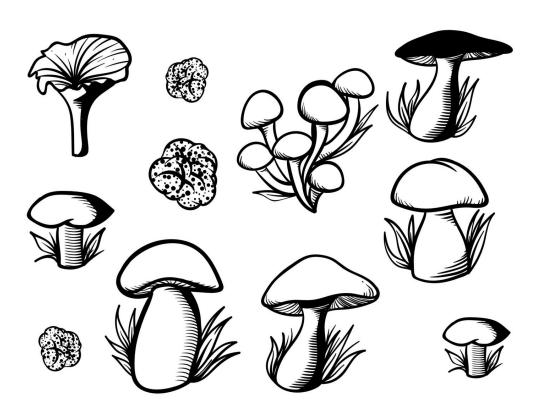
3/4 cup sugar

1/4 cup whole milk powder

4 black mission figs

Method:

- 1. Put black trumpet mushroom in food processor and run for about 1 minute, until mushrooms are broken up into very small pieces.
- 2. Combine milk, heavy cream, sugar and milk powder with black trumpets and bring to a strong simmer (do not scald), turn heat off. Allow to cool a bit.
- 3. Meanwhile, remove stems from figs and puree in food processor. Add about 4 tbsp of puree to cooled mixture, then finish cooling the mixture until it is chilled.
- 4. Use this chilled mixture in your ice cream maker and freeze according to manufacturer's directions.



Lions Mane Crab Cakes

Yield: 4 large crab cakes Recipe Credit: Luke Smithson

Ingredients:

1 lb. Lions Mane Mushroom

Cooking oil of choice

1 teaspoon chopped garlic

1 tablespoon melted butter

1 teaspoon lemon juice

1 egg

1 tbsp mayonnaise

1 teaspoon Dijon mustard

1 tablespoon chopped cilantro

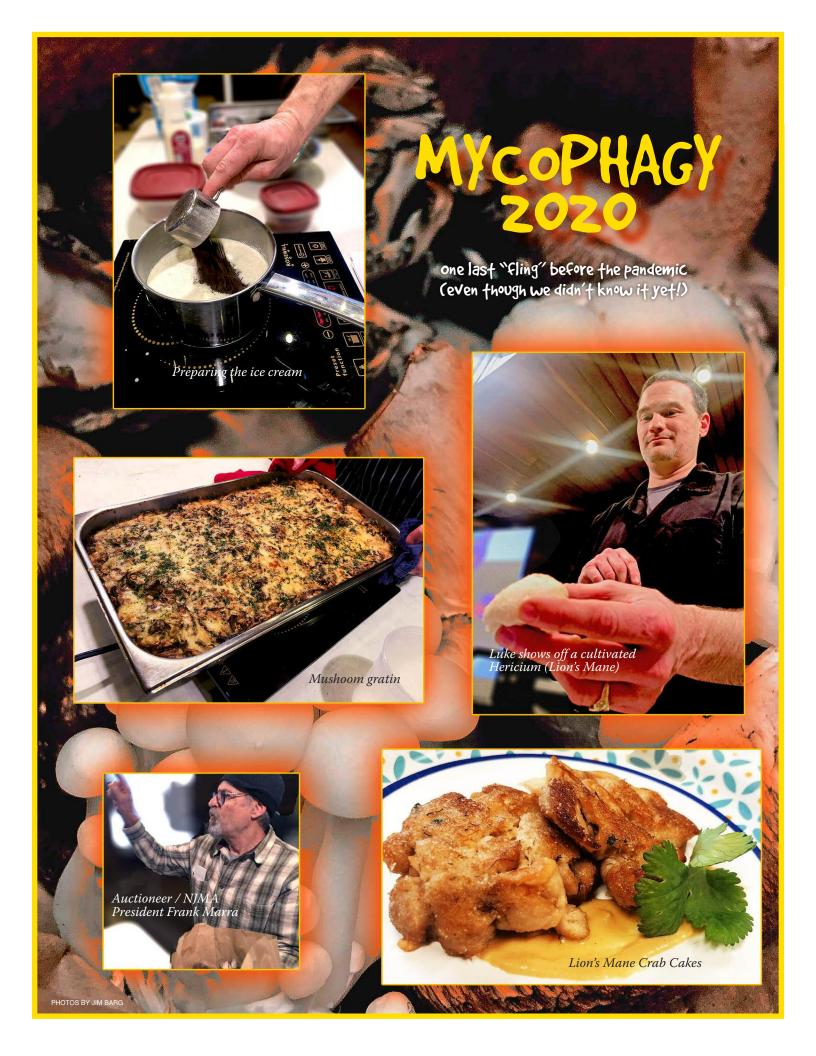
1 pinch cayenne (optional, but gives it a little more depth)

1-2 tablespoons rice flour (substitute with AP flour if desired)

Method:

- 1. Tear Lions Mane into bite size pieces and sweat in a small amount of oil over medium heat until juices are released. Remove mushrooms from pan, wringing excess liquid from them and allow liquid to continue to reduce.
- 2. While liquids reduce, chop the mushrooms into small pieces. Return to pan and carefully cook until liquids have evaporated. Add garlic during last 30 seconds of cooking. Stir often. Remove mushrooms from pan and cool.
- 3. Mix melted butter, lemon juice, egg, mayonnaise, Dijon and cilantro together. Fold in cooked mushrooms.
- 4. Add 1 tablespoon of rice flour to mixture and test consistency by squeezing a handful. If it sticks together, consistency is good. If it falls apart, add a little more flour and test again.
- 5. Form into small patties and sauté in oil until evenly brown on both sides.





ROBERT H. PEABODY

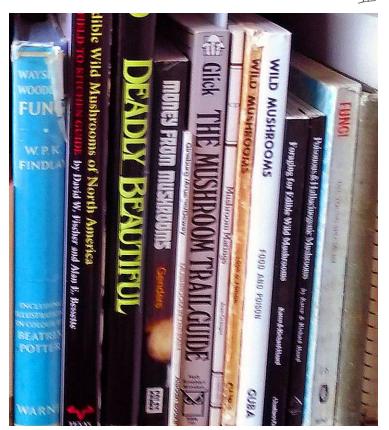
by Jim Richards, Librarian

Progress is being made in cataloging the collection. I have added about one third of the collection (335 books) to the Library Thing app and hope to get the balance done over the summer. It is slow work with each book having to be entered and then doublechecked to make sure the details are correct. The biggest problem is that Library Thing tends to use a generic cover photo when the specific one is known to be available. At this point, the books that I have at my apartment are shelved and duplicates have been separated for use in Field Sets (when we get to go on forays again) or sale. I still have to do the same with the books that are housed at the Burghardt's and Terri Layton's.

If you are interested in borrowing books, you can check the reviews in past issues of NJMA News or contact me if you have the title. The review copies, cookbooks, general books and books on wild foods are the ones that currently reside here in Hackettstown. They can be sent to you via Media Mail in most cases. (One exception is the new Laessoe/Petersen set Fungi of Temperate *Europe*; it weighs eleven (11!) pounds!)

If you have borrowed any books from the library, they should be returned so that others may read them. Send them via Media Mail to me at 211 Washington Street, Hackettstown, NJ 07840-2145.

If you are interested in reviewing new books for NJMA News, please contact me (njmaeditor@gmail.com).



WELCOME TO ALL OF OUR NEW NJMA MEMBERS!

We'd like to extend a warm welcome to the following members who joined us between March 4, 2020 and April 27, 2020. We look forward to seeing you at lectures, forays, and other NJMA events once they resume! Happy 'shrooming!

Frank Babcock	Jersey City, NJ
Marie Bonnefoi	Basking Ridge, NJ
Kim Breidt	Stockton, NJ
Linda Holt	Bordentown, NJ
James Jones	Hamilton, NJ
Cary Lazar	Andover, NJ
Vanessa Lynch	Denville, NJ
Cameron McKenzie	Newton, NJ
Marilyn Musielski	Madison, NJ
Caroline Newman	Fair Lawn, NJ
Rachel Park	Bloomsfield, NJ
Stephanie Sottolano	Mount Laurel, NJ
Jacob Sprague	Sewell, NJ
Krish Venkat	Lawrence Twp., NJ
Leslie Virnelson	Princeton, NJ
Eric Wernersbach	Jersey City, NJ
Michael Zielinksi	Philadelphia, PA
Virginia Zoll	Macungie, PA

MUSHROOM KETCHUP (continued from page 7)

Mix the mushrooms with the salt in a bowl, cover and let them stand for nine days, stirring them once or twice a day. Put them into a stoneware crock, cover tightly, and set the crock in a pan of water. Cook over low heat for three hours. Strain the mushrooms through a sieve into a pot, and add to the juice the remaining ingredients- the proportions given are for 5 cups of mushroom liquid. Keeping the pot covered, boil together over low heat until the liquid is reduced by half, then strain it through a jelly bag. Bottle the ketchup and cover.

Those are the instructions, you may want to change to suit your cooking methods, or follow the recipe in the link above.