



Fall 2018

Fungi Kingdom News

The newsletter of the Pioneer Valley Mycological Association

J Benson Evans



Amanita sp.
collected by
Jessica Benson
Evans at the NEMF
foray in July. See
articles on pages 5
and 7 to learn
more about this
specimen.

In this issue ...

- 3 Fungi Kingdom Festival
- 5 NEMF Samuel Ristich Foray
- 7 Citizen Science
- 7 Microscopy
- 8 PVMA White Mountain Foray
- 11 New rules for dogs in WMAs
- 11 2018 Walk leaders and guest mycologists
- 12 Review: Field Guide to Medicinal Mushrooms



End-of-the-Season



Potluck! & Membership Annual Meeting

We're looking for your favorite photos
and/or stories from the season!
December 8th from 4-7 pm at Dianna's house.
Address: 441 Kennedy Road, Leeds, MA
Bring a dish to share!

We'll share a slideshow of the season, and we're looking for your favorite photos or stories from this year's walks and events. What made you decide to become a new member this year? What was your favorite find? Did you learn a new species this year that you're excited about? Submit your stories/photos along with your RSVP to Jessica at JessicaBensonEvans@gmail.com



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Jessica Benson Evans, *president*
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Joan Adler, *secretary*
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Devorah Levy, *Education*
Stephanie Reitman, *Hospitality*
Paul Thomas, *Citizen Science*

OUR MISSION STATEMENT

The Pioneer Valley Mycological Association is dedicated to enhancing the public's knowledge and appreciation of the fungal kingdom by providing ongoing educational programming in the form of guided mushroom walks, lectures, newsletters, information on multi-day regional and national forays, and citizen science projects. Because fungi are integral components of complex ecosystems, we are committed to advocating for responsible and sustainable study and collection methods. We focus on, but are not limited to, the three counties of the Pioneer Valley in western Massachusetts (Franklin, Hampshire and Hampden).

PVMA is a member of the Northeast Mycological Federation (www.nemf.org) and the North American Mycological Association (www.namyc.org).

www.fungikingdom.net

We Welcome Your Submissions!

This is your newsletter; we'd love to have you contribute to it! Prose, verse, photos, drawings, recipes, scientific observations – send them all to:

jessicabensonevans@gmail.com
sue.lancelle@gmail.com

From the President...

Wow: what an incredible, busy, fun-filled season this has been! The time for fleshy fungi is now waning, but the rains this summer created an ideal season for fungi that enabled our members to spot many new-to-them species and collect myriad edibles. I gathered my own (last?) meal's worth of fresh black trumpets yesterday (October 9th) here in Shutesbury, as well as dried an entire dehydrator full of specimens for our citizen science project over the last few days.



Our first-ever Fungi Kingdom Mushroom Festival at Arcadia Wildlife Sanctuary in Easthampton was a resounding success! Estimates of attendance were well over two hundred visitors, and the workshops and talks were all fully attended by enthusiastic guests. Our team of PVMA volunteers put on an incredible event, and I am so grateful to each of you for your hard work. Thanks to the rain and the work of many gatherers and several dedicated identifiers, our display tables were brimming with beautiful fungi. In addition, the event brought many new members to our club; welcome, new friends!

It was also a busy summer for fungi-related travel: several members attended the annual NEMF gathering which was held this July in Geneseo, NY. You can read more about our adventures on pages 5-6. In August, others met at Dianna's home in the White Mountains of New Hampshire for a week of fungi and camaraderie. Photos and notes on that event can be found on pages 8-10.

Looking ahead, we hope to see many of our new members and old friends at our end-of-season potluck and membership annual meeting, which will be held on December 8th from 4-7 p.m. at Dianna's. We'll share photos from the season and talk about winter and spring offerings while enjoying tasty treats and each other's company. Hope to see you there!



Bill Yule at Arcadia Wildlife Sanctuary

We had a full house at Arcadia Wildlife Sanctuary for guest mycologist Bill Yule's August 25 talk about the importance of mycorrhizal associations. After the talk, Bill, Jessica and Dianna led walks on the grounds of the sanctuary.

PVMA Fungi Kingdom Festival 2018

by Sue Lancelle

We held our first ever Fungi Kingdom Festival at Arcadia Wildlife Sanctuary on September 22, and it was a resounding success! Hundreds of people visited and enthusiastically took part in the variety of activities offered. The weather even cooperated for the whole afternoon. A special thank you goes to Jessica Benson Evans, Devorah Levy, and Dianna Smith, who comprised the committee that took on the bulk of the planning and execution of the event. In addition, Marty Klein worked very hard on the members' photography exhibit, and his efforts showed. It was a wonderful exhibit; thank you Marty! Many other people stepped up to help, from collecting fungi the day before the event, to giving talks and volunteering to help at the various venues, to setting up and cleaning up afterward. Thanks to all; it wouldn't have happened without you!



Early morning set up at the I.D. table. Many members went out to areas around the valley the day before and collected fungi for the event.



Fungi Ally presented two well-attended workshops on mushroom cultivation and sold cultivation kits.



Marty discussing edibles at the I.D. table.



Families enjoyed the variety of activities at the kids' tent



Part of the members' photo exhibit



Dianna double checking the identifications at the ID table.



Dianna and Jess offered fungi identification walks, but the walks quickly filled up. We asked Noah Siegel to offer a third walk and he graciously agreed. Thank you Noah!



Above and below, folks enjoyed some mushroom art projects at the art area.

In the learning lab, people investigated various ways to identify fungi, including spore prints and using microscopes.



Devorah looking very pleased by the turnout at the festival!



Phil and Lloyd man the membership table.

Notes from the 2018 NEMF Samuel Ristich Foray

by Jessica Benson Evans and Sue Lancelle

At the end of July, five members of PVMA made the 6-hour-plus journey by car to Geneseo, NY, to attend the 42nd annual NEMF Samuel Ristich foray. Held on the grounds of SUNY Geneseo and in a variety of state parks and natural areas in the surrounding towns, this foray brought hundreds of amateur and professional mycologists together for a long weekend of fun and fungi.

What is it like to attend a NEMF foray? Exciting, educational, exhilarating, eye-popping, exhausting! There are evening programs, lectures and workshops throughout the day, and several trips to local hot spots daily for collecting adventures. There is always a mycophagy event and a shop with fungi-related merchandise, from T-shirts and guidebooks to tinctures, cultivating supplies and crafts. The fungi that are collected on the local trips are identified by experts and then placed on display tables, sorted by groups. At various times, experts in the various groups of fungi give “table talks” about the collections.



PVMA members Dale Callaham, Dianna Smith, Sue Lancelle, Jessica Benson Evans and Brenda Clark at the NEMF foray

This year, there were several emotional tributes to Gary Lincoff during the evening programs by many people who knew him best, including our own Dianna Smith. Gary was an outsize presence at the NEMF forays and he will be deeply missed.

Conditions were generally dry out in the woods and on the trails (this was before the rains set in!) but foray participants still found a wide variety of interesting and unusual fungi to collect and bring back to the display tables. Of the 494 species recorded at this year’s foray, 59 were new to NEMF collection! These new species

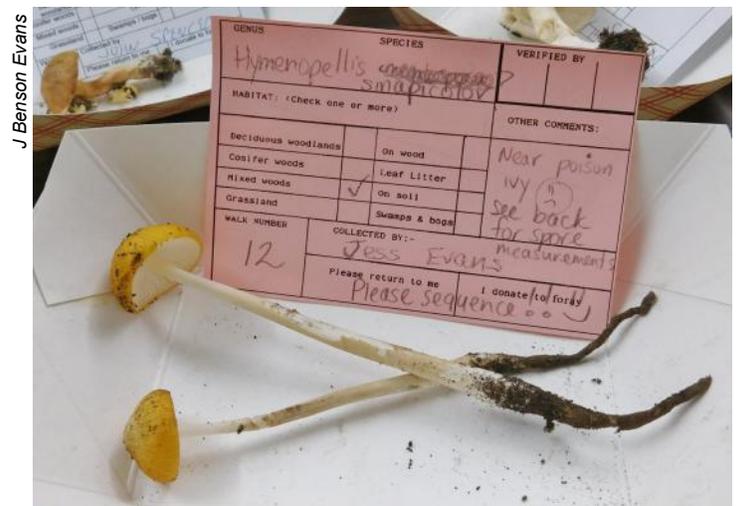
included two particularly interesting ones that Jess brought in to the display tables from her walks.



Middle Falls at Letchworth State Park, often called the “Grand Canyon of the East.” Several of the collecting walks were in this beautiful park.

First, she found a beautiful *Amanita* species in wet conifer woods: the only walk site that weekend that felt damp at all! Based on its morphology -- striate cap margins and a sack-like volva at the base – she called it “*Amanita* sect. *Vaginatae*” and dropped it off at the display tables. Rod Tulloss, a noted *Amanita* expert, believed it to be *Amanita luzernensis*, a species carrying a provisional name until it is published. That night, at the evening program, she was pleased to receive one of the “best of the day” awards from Rod and the mycology team for this specimen. But the story doesn’t end there ... see the article on page 7 about this interesting specimen.

A second find was equally exciting; along a dry sandy



Hymenopellis sinapicolor on the display table

trail ringed with poison ivy, Jess happened upon two beautiful specimens of *Hymenopellis*. Club members may be familiar with *Hymenopellis furfuracea*, which we see frequently on club walks throughout the summer. While *H. furfuracea* has a tan cap, these specimens had a bright lemon-yellow cap! She believed that she had something very interesting. Carefully, avoiding the poison ivy, she collected them, taking care to get as much of the rooting stem as possible. You can see these long, rooting portions in the picture on the previous page.

Back at the display tables, Jess caught the attention of Timothy Baroni, who you may recognize as the author of *Mushrooms of the Northeastern United States and Eastern Canada* (2017). He suggested *Hymenopellis sinapicolor*, a species originally described from Arkansas, but not very commonly collected anywhere. Jess went to the microscopy lab and made some spore measurements, which helped confirm the species determination. Western Pennsylvania Mushroom Club's mycologist, Garrett Taylor, generously took on the task of drying these specimens and getting them sent off for DNA sequencing.

directly adjacent to Middle Falls at Letchworth State Park.



Lactarius indigo

While Jess and Brenda enjoyed heading out on the local collecting trips, Sue and Dale attended lectures and workshops. Dianna did some of each! Lectures were by such notables as Tim Baroni, Roy Halling, Noah Siegel, Rod Tulloss, Renee Lebeuf, Bill Yule and others. Workshops included mushroom crafts, dying, paper making, tincture making and cultivation, truly something for everyone.



Old friends Tim Baroni and Barbara Thiers. Tim graciously signed several copies of his guidebook for PVMA members. Barbara is the director of the herbarium at The New York Botanical Garden and has agreed to accept the vouchered specimens from our citizen science project for permanent storage at the Garden.



Roy Halling gives a "table talk" about the boletes found at the foray.

Jess also collected *Lactarius indigo*, a beautiful *Lactarius* that has bright blue milk. The specimens were found right on the front lawn of the Glen Iris Inn, a hotel perched

Next year's NEMF gathering will be held from August 1-4, 2019, at Lock Haven University of Pennsylvania. Although it is some time away, consider putting it on your calendar now! A foray is a great way to totally immerse yourself in fungi with like-minded folks.

Note PVMA's new web site address!

Our club's web page has a new address (click to access it):

www.pvmafungikingdom.org

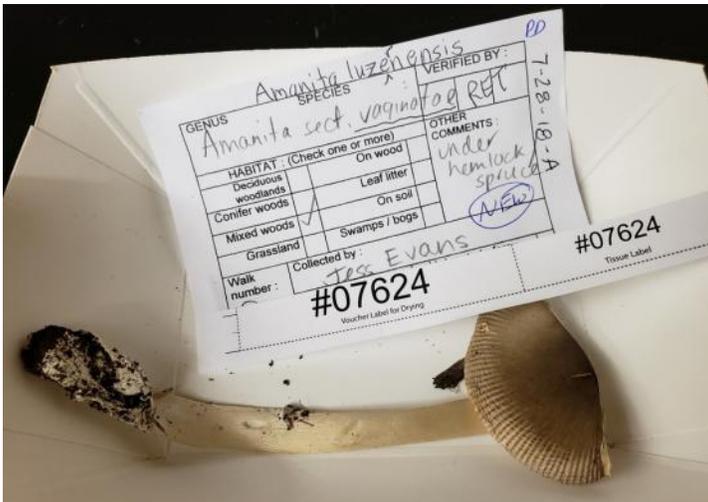
On this page you can find fungi check lists for our area, Dianna's beautiful photos, and all sorts of educational materials. Be sure to check it out and bookmark it now! Note that our old web address, www.fungikingdom.net is still up and running, but the new web page is more specifically geared toward our club.

Citizen Science: DNA sequencing through the Mycoflora project adds another piece to the identification puzzle

by Jessica Benson Evans

Remember that beautiful *Amanita* that I collected at the NEMF gathering in Geneseo, NY? Based on its morphology – striate cap margins and a sack-like volva at the base – I called it “*Amanita* sect. *Vaginatae*” and dropped it off at the display tables. While I was away on an afternoon collecting walk, Rod Tulloss tentatively identified it as *Amanita luzernensis*, a provisional name he had given to a species collected in Luzerne County,

J Benson Evans



Picture of my *Amanita*, with collection slip. You can see that after I turned in the slip with my notation of “*Amanita* sect. *Vaginatae*,” Rod Tulloss gave it a tentative species ID. Then it was given an accession number for vouchering and DNA sequencing.

Pennsylvania. The physical characteristics seemed to be a great match, but we could obtain another piece of the puzzle in the species determination by utilizing DNA sequencing. In this case, my *Amanita* was saved and dried at the NEMF foray so that it could go for sequencing through the North American Mycoflora project. The results determined that it is not actually *A. luzernensis*; instead, it is another as-yet-unnamed species within *Amanita* sect. *Vaginatae*! [Click here](#) to see the observation on I-naturalist, posted by Mycoflora project coordinator Stephen Russell. For Rod Tulloss’ page on this unnamed *Amanita* species [click here](#).

This coming winter, we will be offering a workshop on how to participate in the Mycoflora project, including how to write great descriptions. Each of us can contribute to our club’s citizen science project: photographing, collecting, describing, and drying specimens for herbarium storage and/or DNA sequencing!



Using the microscope to help get that I.D.

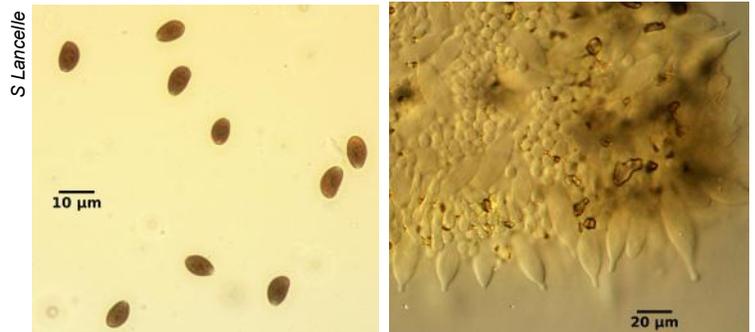
by Sue Lancelle

In Jessica’s article about using DNA sequencing as an important tool to “get another piece of the puzzle,” we saw how using macroscopic characteristics alone is often not adequate to get to a species determination. Yet another tool we can use is the microscope. Here is an example of how using the microscope can sometimes quickly help with a species determination.



S Lancelle

There are two wrinkly species of *Psathyrella* in our area that look alike to the eye, *P. delineata* and *P. rugocephala*. Both have very wrinkled, somewhat sticky caps with veil remnants around the margin. They are wood rotters. To tell them apart, you must look in the microscope. *P. rugocephala* has warty spores that are 9-11 x 6-8 μm , while *P. delineata* has smooth spores that are smaller, in the range of 6.5-9 x 4.5-5.5 μm . I used this distinction recently to determine that the specimens I had found were indeed *P. delineata*. The spores were elliptical, smooth, and measured 7.4-8.5 x 4.5-5.3 μm , right in the range of this species. Also, as reported for this species, the cystidia (specialized cells lining the gills) were mucronate (with sharp tips). Unless DNA sequencing eventually shows otherwise, I am satisfied with my determination of *Psathyrella delineata* for this specimen.



S Lancelle

Smooth smaller spores and mucronate cystidia point to *P. delineata*

The 2018 PVMA White Mountain Foray

by Sue Lancelle

For a wonderful week in August, 12 PVMA members participated in a foray at Dianna's lovely home in the White Mountain region near Bethlehem, NH. Every day we went on collecting walks in various places and habitats around the region, usually hitting two different areas per day. By late afternoon, our collections were spread out on a display table on the screened porch (with a beautiful view of the mountains in the background!). Fortified by liquid refreshments of various sorts and armed with piles of ID books, Dianna's vast knowledge, and a couple of microscopes, we dived into the task of trying to identify everything. Anyone who made an ID would explain to the others the basis for the decision, and sometimes a lively discussion ensued. In total, we were able to identify over 230 fungi and one slime mold to the species level, and several more to genus only (see the accompanying list). In the evening we had delicious dinners prepared by various members, and one night a mycophagy event cooked up by Anna Seitz, using the edibles we found on our walks. Everyone was expected to pitch in and help with meals and cleaning. Being able to focus solely on collecting and learning the fungi without our normal daily distractions was a tremendous educational and social experience!



Around the display table



Checking the edibles



Dinner party



Arranging the finds

**LIST OF FUNGI IDENTIFIED AT
THE PVMA NH FUNGAL FORAY
(August 20-24, 2018)**

BOLETEE-LIKE

Austroboletus gracilis var.
pulcheripes
Boletellus chrysenteroides
Boletinellus merulioides
Boletus sp.
Boletus longicurvipes
Boletus speciosus
Boletus subvelutipes
Butyriboletus brunneus
Chalciporus piperatoides
Chalciporus pseudorubinellus
Chalciporus rubinellus
Gyroporus castaneus
Gyroporus cyanescens
Harrya chromapes
Hemileccinum subglabripes
Hortiboletus campestris
Hygrophoropsis aurantiaca
Imleria badia
Leccinum holopus
Leccinum rugosiceps
Leccinum scabrum
Leccinum snellii
Leccinum vulpinum
Phylloporus leucomycelinum
Phylloporus rhodoxanthus
Retiboletus ornatipes
Suillus sp.
Suillus americanus
Suillus glandulosus
Suillus granulatus
Suillus placidus
Suillus spraguei (*pictus*)
Tylopilus sp.
Tylopilus badiceps
Tylopilus felleus
Tylopilus ferrugineus
Xanthoconium affine
Xerocomellus chrysenteron
Xerocomus illudens
Xerocomus tenax

CANTHARELLOID

Cantharellus cibarius group
Cantharellus minor
Craterellus tubaeformis
Turbinellus floccosus

CORALS

Artomyces pyxidata
Clavulina cinerea
Clavulina coralloides
Clavulina rugosa
Clavulinopsis fusiformis
Clavulinopsis laeticolor
Lentaria bysseda
Ramaria formosa
Ramaria stricta
Ramariopsis kunzei
Sebacina schweinitzii

GILLED FUNGI (PALE-SPORED)

Amanita sp.
Amanita abrupta
Amanita bisporigera
Amanita brunnescens
Amanita ceceliae group
Amanita elongata
Amanita flavoconia
Amanita fulva group
Amanita rubescens
Amanita rubescens var. *alba*
Amanita subcokeri
Arrhenia epichysium
Asterophora parasitica
Cantharellula umbonata
Chromosera cyanophila
Clitocybe sp.
Clitopilus prunulus
Collybia cookei
Collybia tuberosa
Cyptotrama asprata
Cystoderma amianthinum
Entoloma sp.
Entoloma bicolor
Entoloma conicum
Entoloma luteum
Entoloma murrayi
Entoloma salmoneum (*quadratum*)
Entoloma serrulatum
Entoloma strictius
Entoloma umbonatum
Flammulina velutipes
Gerronema strombodes
Gliophorus irrigatus
Gliophorus laetus
Gliophorus pssitacinus
Gloioxanthomyces nitidus
Gloioxanthomyces vitellina
Gymnopilus junonius

Gymnopilus penetrans
Gymnopus confluens
Gymnopus dichrous
Gymnopus dryophilus
Gymnopus subnudus
Humidicutis marginata var. *concolor*
Humidicutis marginata var. *marginata*
Humidicutis marginatus var. *olivacea*
Hygrocybe sp.
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica
Hygrocybe flavescens
Hygrocybe miniata
Hygrocybe parvula
Hygrocybe punicea
Hymenopellis furfuracea
Inocybe sp.
Inocybe calamistrata
Inocybe geophylla
Inocybe tachquamenonensis
Lacrymaria lachrymabunda
Laccaria sp.
Laccaria bicolor
Laccaria laccata
Laccaria longipes
Laccaria nobilis
Laccaria ochropurpurea
Laccaria pumilla
Laccaria striatula
Lactarius sp.
Lactarius camphoratus
Lactarius cheledonium
Lactarius cinereus
Lactarius deterrimus
Lactarius fumosus
Lactarius mucidus
Lactarius mutabilis
Lactarius piperatus
Lactarius rimosellus
Lactarius thynos
Lactifluus deceptivus
Lactifluus hygrophoroides
Lactifluus lignyotus
Lactifluus subvellereus
Lactifluus subvellereus var.
subdistans
Leptonia foliomarginata
Leptonia serrulata
Marasmius sp.
Marasmius cohaerens

Megacollybia rodmanii
Mycena leaiana
Mycena maculata
Mycena sanguineolenta
Omphalina chrysophylla
Paxillus involutus
Phyllotopsis nidulans
Pluteus sp.
Pluteus aurantiorugosus
Pseudotrichia umbrosum
Rhodocollybia maculata
Rickenella fibula
Russula sp.
Russula aeruginea
Russula betula
Tussula claroflava
Russula compacta
Russula dissimulans
Russula emetica group
Russula fragilis
Russula modesta
Russula mutabilis
Russula peckii
Russula roseacea
Russula sanguinea
Russula silvicola
Russula vinacea
Singerocybe adirondakensis
Tapinella atrotomentosa
Tricholoma subsejunctum
Tricholomopsis decora
Tricholomopsis rutians
Xeromphalina campanella

GILLED FUNGI DARK-SPORED

Coprinopsis atramentaria
Cortinarius sp.
Cortinarius armillatus
Cortinarius azurus
Cortinarius bolaris

Cortinarius caperatus
Cortinarius purpureus
Cortinarius traganus
Cortinarius violaceus
Hebeloma sp.
Hypholoma lateritium
Phaeocollybia jennyae
Psathyrella sp.

JELLY FUNGI

Pseudohydnum gelatinosum
Syzygospra mycetophila

POLYPORES, CRUSTS,
STEREUMS

Albatrellus confluens
Albatrellus ovinus
Cerioporus varius
Coltricia cinnamomea
Coltricia perennis
Daedaleopsis confragosa
Fomes fomentarius
Fomitopsis betulinus
Fomitopsis ochracea
Fomitopsis pinicola
Ganoderma megaloma
Gloeophyllum sepiarium
Hymenochaetopsis olivacea
Neofavolus alveolaris
Phaeolus schweinitzii
Picipes badius
Postia caesia
Postia fragilis
Pycnoporellus fulgens
Pycnoporus cinnabarinus
Rhodofomes cajanderi
Stereum complicatum
Trametes gibbosa
Trametes versicolor
Trichaptum abietinum

Trichaptum bifforme
Tyromyces chioneus
 PUFFBALLS
Lycoperdon curtisii
Lycoperdon perlatum
Lycoperdon pyriforme
Scleroderma citrinum

TOOTHED FUNGI

Bankera violescens
Hericium coralloides
Hydnellum caeruleum
Hydnellum concrescens
Hydnellum scrobiculatum
Hydnum albinum
Hydnum repandum
Phellodon niger

ASCOMYCETES

Chlorenchocelia versiformis
Chlorosplenium chlora
Cudonia circinans
Geoglossum sp.
Helvella Macropus
Hypomyces chrysospermus
Hypomyces hyalinus
Hypomyces lactiflorum
Helminthosphaeria clavarum
Issaria sp.
Leotia viscosa
Microglossum olivaceum
Microglossum rufum
Otidea onotica
Phaeocalicium polyporeum
Tatrea macrospora
Tolypocladium militaris
Tolypocladium ophioglossoides

MYXOGASTRIA

Lycogala epidendrom



Suillus glandulosus



Leotia viscosa



Turbinellus floccosus

J Benson Evans

J Benson Evans

S Lancelle

From MassWildlife: New rules for dogs in Wildlife Management Areas

If you like to look for mushrooms in state Wildlife Management Areas (WMAs) and you have a dog, be aware that there are new regulations regarding dogs in these areas. Effective January 1, 2019: Dogs and any other domestic animals must be leashed/tethered at all times. The exception to this rule is that dogs may be off-leash when hunting or hunt training with licensed trainers or at permitted field trials. Also, all dog feces anywhere on the WMA, including parking areas, must be picked up by the dog owner/handler and disposed of off site. Licensed hunters are exempt from this rule.

Guest mycologist Lawrence Millman leads Petersham walk

Larry joined us for a beautiful afternoon walk on October 14 in the Federated Women's State Forest in Petersham, to focus especially on the fungi we often overlook: crusts and small ascomycetes (although we also discussed the other fungi we found!). Twenty-one members and guests joined us for this highly informative walk and talk. Thank you, Larry!



Larry discussing the fine points of a *Lactarius*

J Benson Evans



Spongipellis pachyodon, one of the "crusts" Larry discussed on the walk in Petersham.

J Benson Evans



New member Jeanette found these lovely *Neolbatrellus caeruleoporus*, a blue-pored polypore.



2018 PVMA walk leaders

At left, Marty Klein discusses the details of a mushroom find on the walk he led in Westhampton on September 30. We are always happy to have members share their fungal hunting grounds around the valley with us! Besides Jessica, Dianna and Marty, other members who led walks this year were Joan Adler, Dean Colpack, Phil Hadley, Mary Obrzut, Stephanie Reitman, and Paul Thomas. Guest mycologists Bill Yule and Larry Millman also led walks and shared their knowledge with us. Thanks to all of you!

A Field Guide to Medicinal Mushrooms of North America

By Daniel Winkler and Robert Rogers
Mushroaming Publications 2018

Copies can be purchased at www.mushroaming.com for U.S. residents and at <http://www.selfhealdistributing.com/> for Canadians.

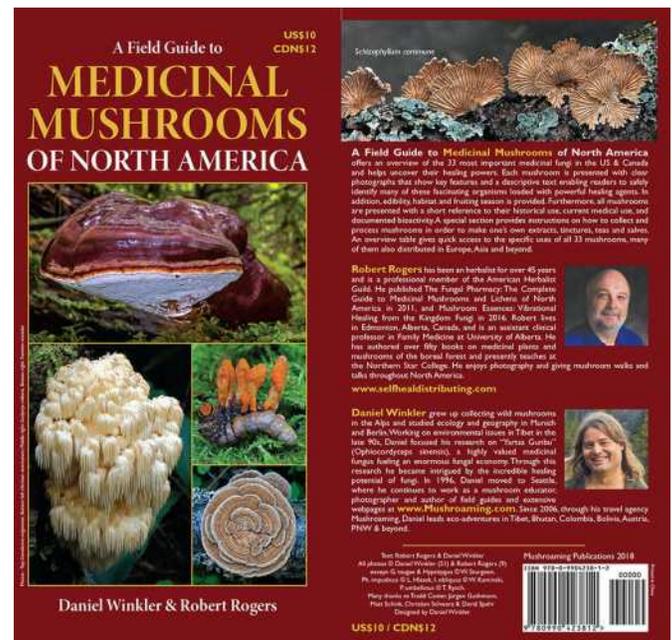
\$10 US, \$12 Canadian

Reviewed by Dianna Smith

This small field guide booklet is an accordion-style folded 8 panel double-sided brochure on good quality heavy-weight paper with a glossy finish. It seems relatively water-resistant. Given that those most interested in consulting this educational work on traditional fungi employed in various folk cultures might take this along with them in a crammed backpack or mushroom basket, it probably could have been a bit sturdier. It is in the same format of three others produced by Daniel Winkler: *Field Guide to Edible Mushrooms of the Pacific Northwest*, *Field Guide to Edible Mushrooms of California*, and *Field Guide to Tropical Amazon Mushrooms*. (See reviews by Steve Trudell in *The Mycophile* January-February 2012, November-December 2012 and May-June 2015).

The authors are Daniel Winkler and Robert Rogers. Daniel is perhaps most known for his study of the medicinal, social, economic and environmental effects of the ascomycetous club-shaped *Ophiocordyceps sinensis*, a hugely popular parasitic fungus that infects insects. It is found in high altitude locations in Tibet, Nepal and other regions west of and including mountainous areas of China. He has also written numerous articles and books and leads travel expeditions to various locations around the world. Robert Rogers has been an herbalist for some 45 years, author of many popular books and articles on medicinal herbs, lichens and fungi, and assistant clinical professor of Family Medicine at the University of Alberta. Both men regularly lead walks, take excellent photographs and are crowd-pleasing presenters for mushrooming and other naturalist organizations.

The cover panel has the title and four photos of fungi displayed against a dark burgundy background. On opening the booklet, there are five categories addressed on the left panel: an introduction to fungi discussing their substrates, and functional roles in the environment; instructions on correctly identifying specimens accompanied by the caveat that a number



of them are difficult for the novice to correctly id. They advise on consulting field guides for further in-depth information on properly identifying the included fungi. 'When in doubt, throw it out!' The third section provides a three-part visual symbol indicating the ease of identification of each fungus depicted:

1. A black and white symbol of the brochure means that fungi displayed with this emblem are relatively easy to identify.
2. Moderately difficult to ID fungi have been assigned a logo containing couple of stacked field guides.
3. The third figure features 3 stacked books seen through a large magnifying glass for challenging fungi that have several lookalikes, some of which might be toxic.

Additionally, 2 different edibility symbols are posted with each entry: 'choice edibles' are marked with 2 forks displayed within a circle and 'good edibles' are marked by a circle containing just one fork. There are also a few brief general remarks on fruiting seasons of various fungi and on the variability in their respective sizes depending on conditions and the age of specimens.

The second facing page includes a quick and easy guide to preparing your own medicinals for making tinctures, teas, salves and creams, as well as daily dosage recommendations. It ends with a cautionary statement about consulting the advice and guidance of an expert, and not relying solely on the photos in the brochure-booklet to confirm the identification of fungi readers may want to try.

The first fungi included are genera within the Polyporales of the Basidiomycota. Above each photo

and associated information on the identifying characteristics and traditional or folk medicinal uses of each species discussed is the scientific name and common name printed in white against a dark teal-green horizontal strip. The polypores included are: *Fomes fomentarius*, *Fomitopsis betulina*, *Fomitopsis pinicola*, *Ganoderma tsugae*, *Ganoderma applanatum*, *Laetiporus sulphureus*, *Laricifomes officinalis*, *Phellinus ignarius*, *Inonotus obliquus*, *Trametes betulina*, *Trametes versicolor*, *Grifola frondosa*, *Polyporus umbellatus* and *Sparassis radicata*. Oddly, *Cyathus striatus*, in the Agaricaceae family has been placed in the Polyporales. Undoubtedly this was an oversight. The next group to be featured are cap and stem gilled fungi in the Agaricales: *Agaricus subrufescens*, *Coprinus comatus*, the *Armillaria mellea* group of honey mushrooms, *Flammulina velutipes*, *Lentinula edodes*, *Lyophyllum decastes*, the *Pleurotus ostreatus* group of oyster mushrooms, *Hypsizygus* spp., *Psilocybe cubensis* and *Schizophyllum commune*.

Labeled in white against a brownish horizontal bar are *Hericium erinaceus*, *Hydnum repandum*, *Phallus impudicus*, *Auricularia auricula*, and *Tremella mesenterica*. The text accompanying the stinkhorn mistakenly says that *Phallus ravenelii* differs from *P. impudicus* in that the volva of the former is tinted purple. I believe the species with the purple tinted volva is actually *Phallus hadriani*. Three fungi from the Ascomycota are listed against a blue stripe: *Cordyceps militaris*, species of *Morchella* and of *Xylaria*.

An Excel-like listing of all 33 fungi included in the booklet is on the left side of the next to the last page and a vertical listing is at the top on the right side indicating 21 of the traditional medicinal effects or uses of fungi. The symbol of a golden mushroom is placed in the spaces adjacent to the alphabetically arranged

botanical name of each fungus treated in the booklet indicating the purposes and range of therapeutic effects one might expect as a result of consuming them. The back page gives a concise overview of the purpose of the booklet and biographical information on the authors, Daniel Winkler and Robert Rogers.

The booklet was designed by Daniel Winkler. NAMA members should be aware of his talents as a photographer given the many stunning award-winning photos he has submitted for NAMA's annual photography contests. He contributed 51 of the total, while Robert Rogers contributed 9. Five other photos were taken by four additional mushroom photographers. Most of the booklet's photographs are well-done, if rather small, but given the size of the booklet, and the need to include identification, medicinal use information, and symbols on identification ease and edibility, the authors addressed these limitations fairly well. A few shots are a bit on the dark side (particularly the center one of 3 *Ganoderma tsugae* photos, one of 2 shots of *Flammulina velutipes*, and the wood ear fungus). They would have benefited from highlighting the surface textures in a photo editing program.

A Field Guide to Medicinal Mushrooms of North America will appeal to people who believe in the efficacy of medicinal fungi used historically in various cultures, or who at least see no problem experimenting with them for either preventative or curative purposes. Assuming advocates do not overdose on suggested dosages, they are relatively safe to take. Despite the existence of numerous trials to determine their efficacy, so far studies suggest that they may work, but there are no published evidence-based trials to date which prove they do so. As the authors say, do your homework!