Newsletter of the North American Mycological Association

THE MYCOPHILE

VOLUME 55: 2 March-April 2015 www.namyco.org

ANNOUNCING the 2015 NAMA BLUE RIDGE FORAY

by Jackie Schieb

NAMA members are in for a special treat this September when you join other Mycophiles for the **NAMA Blue Ridge Foray on September 24-27**, 2015. In addition to taking part in this special 4 day event, you'll discover the history of the Blue Ridge Assembly in Black Mountain located just 15 minutes from Asheville, NC. The property was selected on Oct. 6, 1906 by Mr. Willis Weatherford, who while touring the property climbed a tree looked out over the Blue Ridge Mountains to see a view of Mount Mitchell and the Craggy Gardens Range and exclaimed "Eureka, we have found it". We hope you will experience a similar reaction when you first drive onto the grounds of Blue Ridge Assembly.

The facility has been offering accommodations and meeting spaces for close to 100 years and we'll benefit from their many years of experience to hold a fun, informative NAMA 2015 Blue Ridge Foray. You'll have many options for comfortable yet affordable accommodations.

(Continued on p. 3)

See pp. 12-13 for Instructions on Nominating Regional Trustees!

FORAYS & OTHER EVENTS

This section of **The Mycophile** is reserved for publicizing the annual forays of NAMA affiliated clubs and other events you may be interested in learning about. If you would like us to list your club's next big event, contact us with details you would like displayed here and send to Dianna Smith, editor of NAMA's bi-monthly newsletter, *The Mycophile:* dianna.smith@comcast.net.

July 30-August 2: NEMF's 39th Annual Sam Ristich Foray sponsored by the Connecticut Valley Mycological Society (CVMS) will take place at Connecticut College in New London, CT. Registration form is now online! http://www.cvmsfungi.org/nemfregistration.html

August 2-8: Mushroom Identification for New Mycophiles: Foraging for Edible and Medicinal Mushrooms workshop with Greg Marley and Michaeline Mulvey at the Eagle Hill Institute in Maine. Contact office@eaglehill.us.

August 28-30: 4th Annual Joint Appalachian Foray at Graves Mountain Lodge, Syria, Virginia, sponsored by The Mycological Association of Washington and the New River Valley Mushroom Club. Walt Sturgeon will be the Chief Mycologist. More details and registration form will be available on MAWs website, www.mawdc.org in March.

September 4-7: COMA's Annual Clark Rogerson Foray will take place again in the beautiful Berkshires near Copake NY, where Northwest CT, Southwest MA and NY meet. Check www.comafungi.org for updates.

September 6 -12: Ascomycetes, Waxcaps, and Other Fall Fungi of New England workshop with Alan Bessette and Arleen Bessette at Eagle Hill Institute, Maine. For information on attending the course contact office@eaglehill.us.

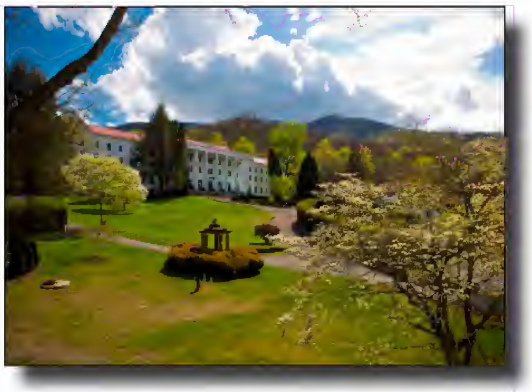
September 17-20: Wildacres Annual Foray: Limit 40 participants. Details coming soon!

September 18-20: **Western PA Mushroom Club's 15th Annual Gary Lincoff Mushroom Foray**. Further information can be found at http://wpamushroomclub.org/.

September 24-27: NAMA Blue Ridge Foray sponsored by the Asheville Mushroom Club and the Mushroom Club of Georgia at the YMCA Blue Ridge Assembly in Black Mountain, NC. Registration will start in early spring. In the meantime, save the dates!

IN THIS ISSUE

Our best rooms will be hotel-style. Room décor and configurations vary but all best rooms have two beds (at least a double and a single) and an en-suite bathroom. Some of these have step-free access to all the main activities and will be reserved primarily for those with mobility issues. Standard rooms, in historic Eureka Hall (pictured on the right), have two single beds and en-suite bathroom. Economy rooms, also in Eureka, have two single beds and share a separate bathroom. We can also accommodate families with children very affordably. All rooms have heating and air-conditioning, though in late September we probably won't need either - this is a lovely time of year in the mountains. Be sure to register early to get your first choice of accommodation.



Traveling with someone who wants to tour the surrounding Blue Ridge area? A host of options are available, e.g., hiking, gallery hopping, dining adventures, museums and some one-of-a-kind shopping. There will be further information in your welcome packet.

The selection of speakers is moving along at a very brisk pace. We're proud that Dr. Alan Bessette has agreed to be the lead Mycologist.

Alan is a mycologist & distinguished Professor Emeritus of Biology at Utica College of Syracuse University. He has published numerous professional papers in the field of mycology and with his wife, Arleen, has authored more than twenty books including *Mushrooms of The Southeastern United States* and his most recent book, *Ascomycete Fungi of North America*. His most current interest is researching fungi of the subtropical regions of the Southeast.

Arleen is a psychologist, amateur mycologist and botanical photographer. She has a special interest in myco-dyeing, the culinary aspects of mycophagy and exploring the nearly addictive passion of foraging. With her husband, Alan, Arleen has authored several books including *The Rainbow Beneath My Feet: A Mushroom Dyer's Field Guide* and *Mushrooms of The Southeastern United States*.

The mycologists, speakers and instructors have not been finalized, but a provisional list includes:

Dr. Alan Bessette
Tradd Cotter
Jay Justice
David Lewis
Dr. Andy Methven
John Plischke III
Dr. Rod Tulloss
Dr. Tom Volk
Arleen Bessette
Todd Elliott
Dr. Julia Kerrigan
Dr. Brandon Matheny
Alan Muskat
Elinoar Shavit
Debbie Viess
Dr. Cornelia Cho
Susan Hopkins
Dan Lazar
Peter McCoy
Dr. Ron Petersen
Dr. Walt Sturgeon
Dr. Rytas Vilgalys

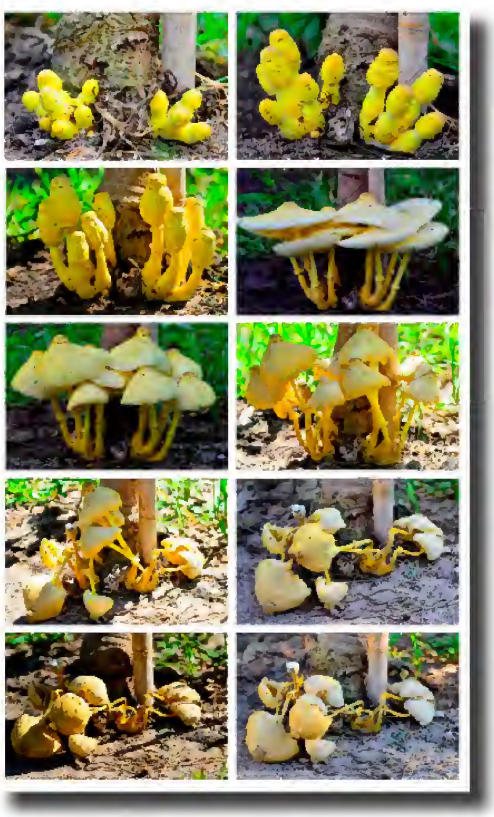
If you want to be notified when registration opens, send an email to blueridgeforay@gmail.com and put "Notification request" in the subject line.

2014 ANNUAL PHOTOGRAPHY CONTEST

in the **Judges' Option Category**

First Place: Daniel Winkler: **Chanties, *Hydnum* & Chanty vodka**
Second Place: Mary Smiley: ***Leucocoprinus birnbaumii***
Third Place: John Shaffer: **Fungi Color Bomb**

1st place Daniel Winkler: **Chanties, *Hydnum* & Chanty vodka**



2nd place Mary Smiley: ***Leucocoprinus birnbaumii***

3rd place John Shaffer: Fungi Color Bomb

2014 ANNUAL PHOTOGRAPHY CONTEST

in the **Judges' Option Category**

Honorable Mention: Patrick Harvey: **Hen Guerrotype**
Honorable Mention: Ann and Rick Harmer: ***Santamanita***
Honorable Mention: Howard Goltz: ***Auricularia auricula-judae*** Listening Post

HM Patrick Harvey: **Hen Guerrotype**

HM Ann and Rick Harmer: ***Santamanita***

HM Howard Goltz: Auricularia Auricula-judae Listening Post

On the wings of ~~an angel~~ predator

By Greg Thorn, published originally in Foray Newfoundland and Labrador's *Omphalina* Vol. V, No 11, Dec. 15, 2014

Back in the 1980s, George Barron suggested I test cultures of all the pleurotoid fungi* for their ability to attack nematodes. From his earlier work we expected that species of *Hohenbuehelia* would attack nematodes, but that all other pleurotoids would not. Well, we got a real surprise with *Pleurotus*—it, too, attacked and consumed nematodes! The cultures of other pleurotoid fungi and many other Agaricomycetes, (see Figure 1) did nothing to nematodes, and gradually became overrun by swarming, wriggling masses of these eelworms.

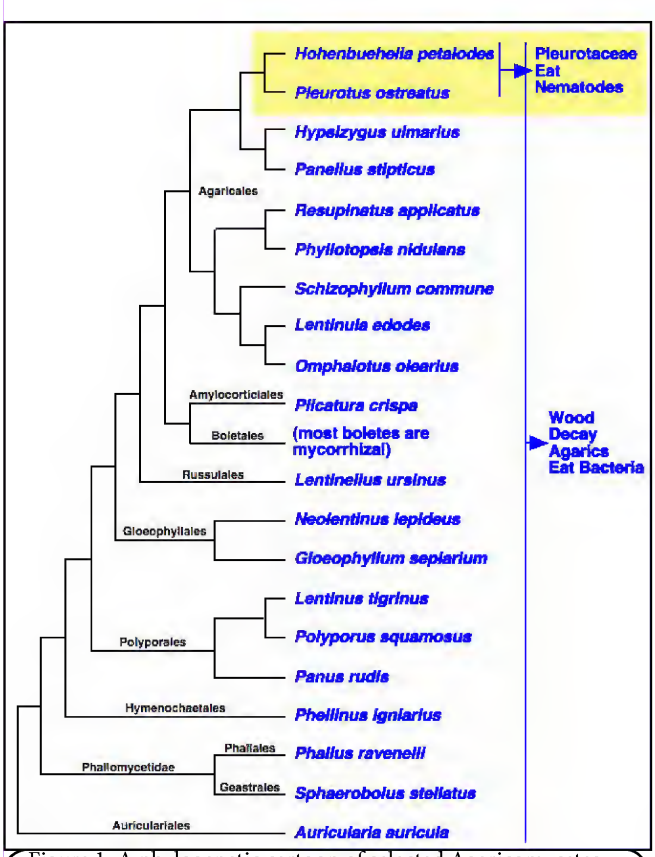


Figure 1. A phylogenetic cartoon of selected Agaricomycetes based on Hibbett et al.[1] The ability to attack and consume living bacteria is widespread among wood-decay agarics, but the ability to attack and consume living nematodes is a specialty of the Pleurotaceae—*Hohenbuehelia* and *Pleurotus*.

It turned out that *Pleurotus* has a different method of attacking the nematodes: first it poisons them with tiny droplets of toxin (decene-dioic acid, a short fatty acid) produced on its assimilative hyphae, and then it grows into the paralyzed prey. *Hohenbuehelia* produces "sticky knobs"—larger, mucilaginous drops—that adhere to the cuticle of a passing nematode, and then penetrate, colonize and digest it.

Now, in the age of DNA based phylogeny, we find that *Pleurotus* and *Hohenbuehelia* are sister genera (top of Figure 1) and far removed from the other pleurotoid fungi, even those with white spores such as *Cheimonophyllum*, *Pleurocybella*, *Schizophyllum*, or *Panellus*.[1] It is perhaps not surprising then, that these others do not share this unique nutritional mode of the Pleurotaceae. However, all of these, and most other decay fungi among the Agaricomycetes, do attack and consume colonies of living bacteria, when tested on non-nutrient agar in the lab.[2]

"Why would they do that?" you ask. Well, for the same reason members of Pleurotaceae eat nematodes. All of these fungi have the same problem: they eat a diet rich in carbon (wood is mostly composed of modified sugars, which they need to build their amino acids, proteins, and even their cell walls. Bacteria and nematodes are full of nitrogen. So, rather than just eating wood, our decomposer fungi are more predatory than you might have imagined. To see the many predatory strategies that fungi have to get nitrogen, see George Barron's site, <http://www.uoguelph.ca/~gbarron/2008/hdiktlis.htm>, and <http://www.uoguelph.ca/~gbarron/N-D%20Fungi/n-dfungi.htm> for dramatic photos of other nematode catchers. Aren't fungi fun when you get to know them?

References

1. Hibbett DS, Bauer R, Binder M, Giachini AJ, Hosaka K, Justo A, Larsson E, Larsson KH, Lawrey JD, Miettinen O, Nagy L, Nilsson RH, Weiß M, Thorn RG: Agaricomycetes. In: The Mycota, vol. VIIA, Systematics and Evolution, 2nd ed. McLaughlin DJ, Spatafora JW, eds. Springer-Verlag, Berlin, pp. 373-428. 2014.

2. Thorn RG, Tsuneda, A: Interactions between various wood-decay fungi and bacteria: antibiosis, attack, lysis, or inhibition. Rept. Tottori Mycol. Inst. 30: 13-20. 1992.

Footnote

*Fungi like *Pleurotus*, the oyster, i.e. a wing-shaped fruitbody with gills, laterally attached to wood.

Send in Your Nominations for the 2015 NAMA AWARDS

for **Contributions to Amateur Mycology** and **Harry and Elsie Knighton Service Award**:

Deadline is April 1st!

NAMA's Award for Contributions to Amateur Mycology is given annually to recognize a person who has contributed extraordinarily to the advancement of amateur mycology. Its recipients have often extensively conducted workshops, led forays, written or lectured widely about mushrooms and identifying mushrooms, all on a national or international level.

Nominations for this award should include a description of the accomplishments the nominee has made in the field of amateur mycology. A potential candidate's name alone is not a sufficient nomination; neither is a profile on a website. The recipient must be living at the time of the award. Nominees who were not selected to receive the award are automatically re-nominated for 4 additional years, after which the nominee's name has to be re-submitted, and it's up to the nominator to keep track of this. Selection among nominees is made by the voting of past award winners, and the award includes a plaque and lifetime membership in NAMA. The previous recipients of the **Award for Contributions to Amateur Mycology** over the past ten years include Steve Trudell, Paul Stamets, Dr. Cathy Cripps, Jay Justice, Allein Stanley, Vera Everson, Dr. Nancy Smith Weber, Dr. Michael Beug, Dr. Tom Volk and Marti and Ken Cochran.

The **Harry and Elsie Knighton Service Award** was established by the NAMA Board of Trustees to recognize and encourage persons who have distinguished themselves in service to their local clubs. It is named for the Knightons, whose efforts began the North American Mycological Association in 1967.

The annual award consists of a plaque; publicity for the winner and club in The Mycophile; a one-year membership in the organization; and registration, housing and foray fees for the next NAMA Foray.

Each year's recipient is selected by the three most recent recipients of the Award. Every NAMA-affiliated mycological club may nominate one candidate whom it feels has performed meritorious service during the current or preceding year, which has to be described! Unselected nominees are automatically re-nominated for two additional years. Previous recipients of the **Harry and Elsie Knighton Service Award** over the past several years include Richard Bishop, John Dawson, Dianna Smith, Ron Spinosa, Paul Sadowski, Joyce Gross, Brian McNett, David Work and Richard Dougall.

Send a single copy of a nomination by mail or email to:

Gary Lincoff
Chair, NAMA Awards Committee
The New York Botanical Garden
2900 Southern Boulevard
Bronx, NY 10458-5126

Email Address: Gary@noahsquark.com

!OUR NAMA ASSOCIATED CLUB OF THE ISSUE!

A BRIEF HISTORY OF THE LONG ISLAND MYCOLOGICAL CLUB

By Joel Horman, editor, *LI Sporeprint*

In 1973 twenty members of the NY Mycological Society, residents of geographic Long Island (which includes the NYC boroughs of Brooklyn and Queens) split off from NYMS and formed a regional entity that would become known as the Long Island Mycological Club. It was felt that an island 120 miles long offered sufficient opportunity for foraging so as not to require the arduous trip off-island north and west of NYC. The emphasis here is on "club". We are an informal group of like minded lovers of fungi and amateur mycologists (there is a difference), and make no claim to be a learned "society"; the casual nature of our board meetings would strike horror into the heart of devout parliamentarians.

Although we think of ourselves as a young club, it would be more accurate to say that LIMC is middle-aged, insofar as fortyish appears to be about the average age of NAMA affiliated clubs, which range in age from the venerable Boston Club, founded in 1897, to some clubs which first saw the light of day in the 2000's. The original members were mostly from Brooklyn and Queens, and the rest from Nassau, the westernmost of the two Long Island counties. Over the years, with growing suburbanization the center of gravity of the club's population has slid inexorably eastward away from NYC with more than 50% of current memberships now residing in Suffolk County. Our total membership has waxed and waned but in recent years hovers around 120 individuals, which seems about average for east coast clubs. In the early years, applicants were vetted to assure that they were serious naturalists.

Sadly, none of the founding members are with us any longer. Our first president and guiding light was Jean Paul Latil, a courtly, witty man whose Thurberesque cartoons continue to be reprinted in our newsletter.

His wife Jacqueline was elected vice-president and Marge Morris secretary. Marge was an avid myco-educator who lectured at various schools and inspired many, including Rytas Vilgalys, head of the Vilgalys Mycological Lab at Duke University (pers. comm.). Since then, we have had only four more presidents; there is no club rule whereby a sitting president cannot be reelected. (Full disclosure: the author's wife, Peggy, has been president since 2002.) In fact, there were no established club by-laws until 2000 when our then president Dominick Laudato drew them up and they were approved by the membership.

Since inception our club has held a scheduled foray most every Saturday morning during the season, which is a long one on Long Island, stretching from the end of April to the end of November. This late collecting has enabled us to add uncommon species, particularly of *Tricholoma* and *Hygrophorus*, to our ever-growing checklist, which has grown to about 950 species. This effort began in earnest in 2000 with 405 species and every passing year has added from 10 to 50 to the cumulative total. This checklist is publicly accessible on our website limyco.org as well as the Mycoportal site. Another public contact point are occasional lectures on fungi and their role in the environment presented at various venues such as garden clubs, Audubon chapters, etc.

Our membership fees have remained modest and unchanged for our entire history: $10 for an individual and $15 for a family. The membership includes people from all walks of life, from plumbers to physicists, and from many nationalities, with a strong Slavic contingent, reflecting a shared family culture of mushrooming. Not all of our members are active and a significant percentage only rarely, or never, attend a foray but seem content to participate vicariously through the pages of our newsletter, the Long Island Sporeprint. Over the years the publication has grown from a couple of mimeographed pages of text to a quarterly eight paged newsletter available to members in full color on our website . As editor, the author attempts to merge local data, such as previously unrecorded taxa and newly available collection sites, with more general developments in mycology, by gleanings from the technical journals. Identification hints are also published to supplement the instruction supplied in the field to novices.

Like other clubs, we have had problems with access to collecting sites, but over the years have established relationships locally with various parks, arboretums, etc., which approve our activities. (We have learned that it is best to deal with local managers rather than navigate the treacherous headwaters of the bureaucracy.) However, the largest areas of natural habitat, the pine barrens, are under the jurisdiction of the NYS DEC, which prohibited the harvesting of any natural product (other than game animals, which required a license). We did obtain a dispensation based on our research collecting of Hebeloma which also entailed the submission of specimens to the NYS Museum. By doing so we tread in the footsteps of Charles Horton Peck, the NYS botanist, who collected widely in Suffolk County, and it is a thrill to come across the very species (sixty-two in all) whose type specimens derive from here (e.g., *Boletus illudens*, *Cortinarius pulchrifolius*). It was not until 2012, when several natural history organizations prevailed upon the DEC, that they altered their regulations so as to permit the harvesting of forest products such as mushrooms and berries. Ironically, now that we have access, the pine barrens are under serious threat from the Southern Pine Beetle which has recently infested over 1,000 acres in Suffolk County. Measures including felling of infected trees have already begun this winter when the insects are dormant and cannot fly off to infect other trees.

We have had a web presence since 2001 (despite the initial misgivings of some older members) and group email notifications to members re foray conditions since that year as well. This has permitted us to cancel forays when adverse conditions prevail thus sparing members a fruitless trip. On the other hand, some may argue that the experience of failure makes success all the sweeter. Our website regularly produces new member applications and makes our presence known to a wider audience. Previously our annual public mushroom display at Planting Fields Arboretum, with whom we have a long standing relationship, was our only avenue to attract new members, other than word of mouth. We have also been fortunate in that over the years, Newsday, the leading newspaper on Long Island, has several times brought attention to the club by full page articles of our activities. Further attention was created by Dom Laudato's 2012 publication of his memoirs, ***Mushrooming on Long Island: Selected Memoirs of an Obsessed Mycophile***, which contains accounts of the club's activities over the years, as well as seasonal check lists, etc. Some members of the public become aware of us only after being referred by the Cornell Agricultural Extension to identify a suspect species consumed by their unfortunate canines (which seem to have a fatal attraction to *Amanita bisporigera*) or their grazing toddler.

Over the years, we have collected for various research projects, among them Benjamin Wolfe's doctoral thesis on the evolutionary development of symbiosis in Amanita; he is now Assistant Professor of Microbiology at Tufts University and our science advisor. We continue to supply collections of Hebeloma for Prof. Henry Beker, the Belgian researcher whose European guide is scheduled for publication this year; a North American guide is to follow. Collections from our own herbarium (back to 2001) continue to be accessioned at the NYS museum and the NY Botanical Garden for coordination with our published species checklist on the Mycoportal wehsite, the public face of the Macrofungi Collections Consortium.

When founded our stated mission was "to improve the members' knowledge of mushrooms on Long Island"; it would now be more correct to add "also to contribute to the public awareness of fungal biodiversity and to the science of mycology".

Over time, we would like to feature articles on all the NAMA associated mycology clubs of North America in both ***The Mycophile*** and on our soon to be revamped website www.namyco.org. Kindly ask the club historian to contribute an article about your club along with a few photographs to the editor, dianna.smith@comcast.net.

Don Huffman, Ph.D. (1929-2014) – a Giant of a Mycologist

by Don Hemmes

Don Huffman was born in 1929 in Pittsburg, Kansas. He received a master's degree in plant pathology from Kansas State University and a Ph.D. in plant pathology from Iowa State University. In 1957, Don joined the faculty at Central College in Pella, Iowa. He attended his first NAMA meeting in 1971 and eventually served as president from 1986 to 1994. While president he instituted the President's Outstanding Service Award for those making substantial contributions to the association. Earlier, in 1983, Don, with Lois Tiffany, founded the Prairie States Mushroom Club. Don's wife and life companion, Dr. Maxine Huffman, was a Professor of English at Central and together they were a dynamic duo. Don and Maxine met Orson and Hope Miller through their mycological endeavors and became fast friends and even bought neighboring residences in McCall, Idaho, where the mushrooms were in abundance. You would never miss Don on a foray since he towered over everyone else, but however intimidating from his size, he was always congenial and ready to help out any aspiring mushroom hunter.

As a lecturer and inspirational personality, he was unsurpassed. Don Huffman was the reason why I became a biologist/mycologist. As an undergraduate freshman at Central College of Iowa in 1961, I was planning to major in French until I took a course from Professor Huffman. In those days Central had bells to signal the end of classes and in his first lecture, Dr. Huffman gave this wonderful, inspiring lecture for fifty minutes and ended by saying, "and that's the way it is." Burring -- the bell rang precisely when he finished. I said to myself, "How did he time that lecture so precisely? I want to be just like him." And that's how I started my career as a biologist.

I will never forget his field trips to spot liverworts and mosses and to happen upon a giant puffball in the fall. In the early 1960's, he was interested in cellular slime molds and received a grant to identify acrasin, the attractant for Dictyostelium amoebae. As a summer lab assistant, I was assigned all chemicals in the stock room from A to H to make three dilutions and put a drop on the plate of amoebae to see if they were attracted. Unfortunately for me, the amino acids were in my group. We didn't even know about cyclic-AMP in those days.

But Don was not just a lab scientist and was always interested in discovering mushrooms in the field, in part because of the bountiful morels in southern Iowa. This interest led him to his collaboration with Lois Tiffany, George Knaphus, and Rosanne Healy at Iowa State University and eventually authoring the field guides ***Mushrooms and Other Fungi of the Midcontinental United States*** and ***Mushrooms in Your Pocket – A Guide to the Mushrooms of Iowa.***

Don retired in 1996 after thirty-nine years of teaching. During his career he served as president of the Iowa Academy of Science and the Association of College Undergraduate Biological Educators. Don Huffman, Professor Emeritus, received an honorary degree from Central College in 2010. At Central, Don's legacy includes the Huffman Faculty Award for Outstanding Support of Education.

Throughout their years at Central, Don and Maxine were involved in the various international exchange programs by teaching in Yucatan, Mexico, and in Hangzhou, P. R. China. The Huffmans wrote original articles and edited most of the material for a series of textbooks for English language instruction, ***The New College English***, which are used widely in China today.

Dr. Huffman inspired many young biologists throughout his long career at Central, and he was always a favorite professor to visit when alumni returned to Pella. Truly a giant of a man and a mycologist, he will be missed by his NAMA friends and colleagues. He is survived by his son, Jim, of Des Moines, Iowa, and his daughter, Kim, of Pella, Iowa.

Regional Trustee Nomination Instructions

2015 marks the beginning of a new protocol for selection of NAMA Regional Trustees. **The new regions defined as Northeast Region, Mid Atlantic Region, Pacific North Region and the Southwest Region will be nominating and electing their representatives.** Region boundaries and election years changed; **please check the table below** that lists the affiliated clubs and their new regions to determine if you fall within the above regions. If you are not a member of one of these clubs, you may be able to find your region by looking up the region of the club nearest to your residence.

The system of electing regional trustees has also changed with the new region definitions. The nomination and the election will be completed during the year and will involve every member of NAMA. Any member of the newly defined regions **listed to the right** may nominate any NAMA member, including yourself, within your region. We request that **in addition to the name of your nominee, you also include a brief bio and contact information of your nominee**. The nominations and the ballot form will be published in the next issue of *The Mycophile*.

For additional information please refer to pages 14-15 in the November-December 2014 issue of T*he Mycophile*.

Kindly print or adopt this format to send in your nomination by email to Adele Mehta a.mehta@seniorcommunity.org**, or notify Adele by phone**: 952-884-7362.

Regional Trustee Nomination Form

Name of Nominee: _____ E-mail: _____

Address: _____ Phone: _____

_____

Region (see table): _____ Club (if any): _____

Brief Bio:

Name of Person Nominating: _____

E-mail: _____ Phone: _____

Region (see table): _____ Club (if any): _____

NAME OF CLUB	REGION
Asheville Mushroom Club	MID ATLANTIC
Berkshire Mycological Society	NORTH EAST
Boston Mycological Club	NORTH EAST
Cascade Mycological Society	PACIFIC NORTH
Central New York Mycological Society	NORTH EAST
Central Pennsylvania Mushroom Club	MID ATLANTIC
COMA	NORTH EAST
Connecticut Valley Mycological	NORTH EAST
Eastern Pennsylvania Mushroomers	MID ATLANTIC
Kitsap Penninsula Mycological Society	PACIFIC NORTH
Le Cercle Des Mycologues De Montreal	NORTH EAST
Long Island Mycological Club	MID ATLANTIC
Los Angeles Mycological Society	SOUTH WEST
Maine Mycological Association Inc	NORTH EAST
Mid Hudson Mycological Association	NORTH EAST
Mid York Mycological Society	NORTH EAST
Monadnock Mushroomers Unlimited	NORTH EAST
Mushroom Club of Georgia	MID ATLANTIC
Mycological Association of Greater Philadelphia	MID ATLANTIC
New Jersey Mycological Association	MID ATLANTIC
New River Valley Mushroom Club	MID ATLANTIC
New York Mycological Society	MID ATLANTIC
Olympic Peninsula Mycological Society	PACIFIC NORTH
Pacific Northwest Key Council	PACIFIC NORTH
Pioneer Valley Mycological Association	NORTH EAST
Puget Sound Mycological Society	PACIFIC NORTH
Rochester Area Mycological Association	NORTH EAST
San Diego Mycological Society	SOUTH WEST
Snohomish County Mycological Society	PACIFIC NORTH
South Carolina Mycological Society	MID ATLANTIC
South Sound Mushroom Club	PACIFIC NORTH
South Vancouver Island Mycological Society	PACIFIC NORTH
Spokane Mushroom Club	PACIFIC NORTH
Sunshine Coast Shroom	PACIFIC NORTH
Susquehanna Valley Mycological Society	NORTH EAST
The Mycological Association of Washington	MID ATLANTIC
Vancouver Mycological Society	PACIFIC NORTH
Wyoming Valley Mushroom Club	MID ATLANTIC

MY RARE OAK POLYPORE DISCOVERY

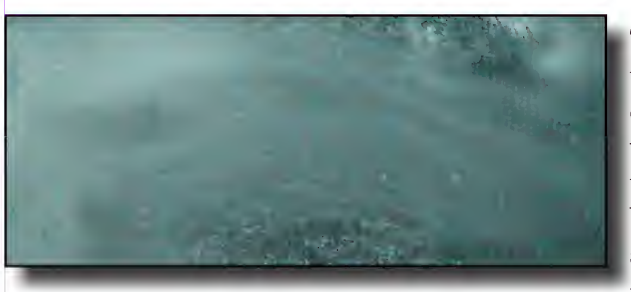
IT'S NOT SUPPOSED TO BE IN NORTH AMERICA!

Originally published in the Fall 2014 edition of *Keystone Cap*, newsletter of the Eastern Penn Mushroomers

By Linda Sears

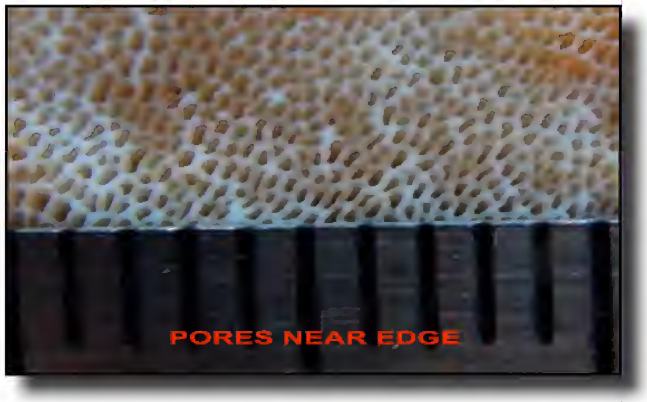
I am not a "stick to the trail" mushroom hunter per se. I spend 99% of my time bushwhacking through the thickest vegetation and swamps the Pennsylvania countryside has to offer in search of the tiniest, weirdest fungi. I do not hunt delicately.

This is one of the reasons why my find on July 30, 2013 is especially ironic to me. I was actually on a well worn trail; the Sand Springs Trail, in fact. I went further up the trail this day than I usually do. There to my surprise, about ten feet off one side and in plain site, was a well rotted log with several large yellow polypores. They weren't hard to spot as the largest one turned out to be a full 23 cm in width! I knew immediately that I had come across something unusual. Even with my ever aging and weakening memory (I like to joke that I seem to be catching my elderly mother's dementia), I could not remember ever seeing anything like this either in books or on websites. I began the process of photographing and documenting. I noted the dimensions and shapes. The caps were mostly yellow, with the appearance of having a whitish bloom on the surface and white edging when younger.



The hymenium or pores were white. They had a rudimentary stalk. Most were single, but there were two which were overlapping. I have trouble determining the species of tree which old soggy logs once were. My initial determination that the log may be hemlock was probably incorrect. I now believe it to be red oak. My final action was to collect the smallest fruiting body which was still a respectable size at about 8 – 10 cm. Once home, I set up two microscope slides underneath the specimen to catch falling spores. There were spores aplenty and the print was white. The other discovery I made is that all parts of the fungus bruise dark or rusty brown rather rapidly.

Then began my unsuccessful quest for the identification of this oddball I had found. Surely a fungus this large had to have been found by some published mycologist somewhere in the world. What was going on here? I then sought help from our club's esteemed professor, Gary Emberger. He knows polypores. He replied saying he was not familiar with this species and asked me to include the number of pores per millimeter. I revised my document accordingly. Still, we were unable to find answers. At our 2013 Annual Tasting, Gary told me that he had recently attended the NEMF Annual Conference in Canada. While there, he had shown my documentation to several knowledgeable polypore people. They too were unable to identify it. Now I was really intrigued. As is the case with many of us though, it can be difficult to find the time to indulge our desire to solve a mystery.



Then suddenly on August 17th a forwarded email came across cyberspace from Cheryl Dawson. And for that simple and dedicated action, I believe I will be ever grateful. Thank you, Cheryl!

I assume all club members received it and, so, are aware it was from Martin Livezey. It contained a request for reports and sightings of a rare oak polypore named *Piptoporus quercinus* which is not known to exist in North America. His email contained two attachments; 1) photos taken by him and several other members of his club, 2) a paper written in the UK in 2009 on this rare oak polypore. In that country, *Piptoporus quercinus* is so rare that it is afforded the highest level of legal protection. I hope I don't get arrested for collecting a sample.

I took one look at the photos, recognized it immediately and fired off a reply. Since then I have been corresponding with Mr. Livezey. He has stated to me that there are several mycologists in Denmark and the UK who have expressed interest in conducting a study to determine whether our finds are in fact what we believe them to be. I am so full of questions and excitement at the prospect of being one of only four people to have a sighting of this fungus on our side of the pond. I don't know, but I just may burst. To date, my find is the furthest northern sighting. The other finds were in Maryland and Virginia. I have posted my find to Mushroom Observer where it can be viewed at the following address: http://mushroomobserver.org/174893?q=29nEs.

As my adventure continues, I will update everyone on what is discovered. My advice to all is to keep sharp out there. Document your finds as well as you can. There are still unknowns on this earth, yes, even in Pennsylvania, which are begging to be explored. I believe this is particularly true when it pertains to the weird and wacky world of fungi.

MAW's Visit with Ethnographer, Dr. Larry Millman

By Nicole Read

Dr. Lawrence Millman joined us for an evening of delightful conversation about uses of fungi by native northern peoples. Dr. Millman is an ethnographer specializing in the lore, myths, customs, and taboos of arctic peoples and their cultures. He is the author of 16 books including *Giant Polypores and Stoned Reindeer* (2013), *Hiking to Siberia: Curious Tales of Travel and Travelers* (2012), and *Northern Latitudes* (2000).

Among topics discussed by Dr. Millman, Northern Native peoples actually do not eat fungi. Every native group has a disparaging name for fungi including language that translates roughly to "that which makes your hands fall off" and "caribou food". In the Central Canadian Arctic, there is a round gall that grows on rhododendron and azalea plants in the spring and summer that the native people do consume, but they consider this part of the plant and do not recognize its classification as a fungus. One theory explaining this abhorrence of fungi as food is the low caloric return provided by fungus. Due fungi's high protein and negligible fat content, body metabolism is accelerated and can lead to starvation if this is a major source of calories.

Amanita muscaria (fly agaric) was among many species of use to native peoples across the Americas. The Big River People of the Yukon region used *Amantia muscaria* during religious rituals to allow one's consciousness to enter the spirit of an animal. The preferred method of attaining this experience was to select a girl who would eat the mushroom, and then collect her urine, which would then be ingested by those who sought the religious experience. In the 1920s, Gordon Wasson, the father of ethnomycology, introduced psilocybe to North America from Mexico and developed a passion for *Amanita muscaria*. Wasson was the author of a book titled *Soma*, in which he argued that the Oracle at Delphi owed her predictive abilities to the consciousness altering properties of *Amanita muscaria*. However, the responsible substance was most likely ergot, as *Amanita muscaria* does not grow naturally in Greece.

Travelling further back in time, Ötzi, the bronze age Tyrolian ice-man who was defrosted in 1992 carried 2 polypores on his person – the birch polypore (*Piptoporus betulinus*) and the tinder polypore (*Fomes fomentarius*). Both specimens were thought to be used medicinally as antiparasitic agents. They were also excellent insect repellants when dried and ignited and allowed to smoke and burn. Similarly, in Siberia, the tinder polypore and the false tinder polypore (*Phellinus igniarius*) were utilized by shamans to get rid of evil spirits. The shaman would burn the polypore and chant to the spirit of the dead who is "trapped" in their home in this world, and allow them to be released into the next world. Additionally, it is believed that burning the polypore could dispel the invisible, 6-legged polar bear that would sometimes haunt the native people. *Phellinus igniarius* (also known as the False Tinder Conk or False Birch Polypore) is also used in Alaska as an especially efficient delivery system for nicotine. The fruiting body is burned to ash and placed in a leaf of tobacco that is then chewed. This is known as "Iqmik" and the alkaline ash enhances both the effects and addictiveness of the nicotine in the tobacco. In the 17th century, Iqmik was developed in this form when whalers brought tobacco leaves to Alaska, however, the practice is an ancient one and prior to access to tobacco, the leaves of willow trees were used. This practice was likely a medicinal method to access the salicylate (aspirin) found in the willow tree.

The importance of ethnomycology is likely fairly obvious to MAW members, but it is tragically illustrated by the winter dance ritual of the Northwest peoples. This dance ritual was possibly related to finding food during the tough winter months or appeasing winter gods. As part of the dance, a ganoderma would be painted with a grinning face. Unfortunately, this dance has not been performed for 80 years and both the meaning of the dance and the significance of the polypore have been lost to humanity.

Published in the Winter 2015 issue of MAW's newsletter ***The Patomac Sporophore.*** *Photo by Willow Nero.*

What the Polypores Say: Interview with Larry Millman

By JJ Murphy of COMA and NYMS

"I'll give the person who finds the most interesting mushroom a signed copy of my book," Larry Millman said to my fellow New York Mycological Society members as we headed into Central Park on a brisk April morning.

I knew I'd be wise to look for something small. I bent down to pick up what looked like tiny dots of dirt on a weathered branch. I showed it to Larry, who said "Bring that back with you."

Thanks to that unassuming ascomycete, *Roselinia sp.*, I won *Giant Polypores & Stoned Reindeer.*

You've got to love a guy who converses with mushrooms – and shares what he learns with the rest of us. Fungi are the least studied kingdom in nature. Larry has empathy for the underdogs of the fungi kingdom.

Larry has said, "polypores are the elders of the fungal world," and "mycelia of comparable strength will battle for the wood that is their food." And he'll explain how cavity nesting birds will follow polypores that indicate evidence of broken down heart wood.

I am delighted to have the opportunity to chat with Larry about fungi, foreign languages and storytelling.

Anyone who can understand the science of mycology and also communicate with the amateur mycologist fits my definition of a "rock star" of the fungi kingdom.

JJM: Have you always been a mycophile? When did you first notice a mushroom speaking to you?

LM: I have always been a naturalist, but a mushroom first spoke to me 30 years ago, when my then significant other pointed to a stump surrounded by large bright orange mushrooms. Epiphany! They were, of course, jack o'lanterns. Later my partner said, "You never looked at mushrooms before that incident, and now you look at nothing else."

JJM: Do polypores communicate more easily than gilled mushrooms or other members of the fungi kingdom? Or is it like learning several different languages?
LM: Because they're robust, overlooked, and winter-hardy (all good characteristics, to my mind), polypores speak to me more eloquently than fleshy mushrooms.

JJM: What is it about a place that makes you want to travel to that location? Are you expecting to find certain kinds of fungi?

LM: Being an explorer, I will always investigate the seldom visited realm of rare and overlooked mushrooms, the nearly extinct, the virtually unknown, the lost, the ignored. It's like trying to get information from the last members of a dying race of Native people…

JJM: What is the first thing you do when learning the language of the elders and storytellers living where you are traveling?

LM: The first thing I do when I'm among a new group of people is…eat their food, be it fruit bats, grasshoppers, insect larvae, or ptarmigan shit (dried). Food is a universal language. If you try to speak it, your "informants" will try to speak with you. But if you say, "Sorry, but I only do hamburgers," nobody will speak to you…

JJM: What other languages do you speak fluently besides Inuit?

LM: I speak a smattering of Greenlandic, Icelandic, German, Irish, and English.

JJM: When I'm out traveling on the trail, I carry a pocket survival kit. What's in your pocket survival kit?

LM: My pocket survival kit when traveling includes a notebook, tabasco sauce (for bland food), a compass, and books, books, books!

JJM: What is your biggest mycological surprise?

LM: My biggest mycological surprise: that Radulomyces copelandii had never been documented in the New World before I collected it…

JJM: Looking back on all your adventures, is there anything you would do differently? I'm asking this in part because of how radically the earth is changing – not only climate change, but how much access to electronics has changed the way people interact with the earth.

LM: I'm not sure there's anything I would do differently if I had to go back and do it again. I've always been dedicated to rescuing and/or salvaging items from oblivion, whether those items are ethnographic material or obscure fungi.

Access to electronics has aided and abetted globalization (really Americanization), and thus spurred on the demise of individual cultures and customs. In 1991, I saw a group of barely contacted people on a remote island in Indonesia watching an undubbed *I Love Lucy* rerun on an old TV mounted on a pedestal. They weren't laughing. Rather, they were ogling the screen. My guide said, "They would like to own that furniture…"

JJM: Thanks very much, Larry, for sharing your insights.

Larry brings a unique perspective to mushroom study. Some final notes that gave me food for thought from *Giant Polypores and Stoned Reindeer*:

- "Less than 10% of all fungi have been identified.
- "You can remove all the birds and still have a forest, but if you remove all the fungi, the forest will die. Indeed, you could say that the trees in that forest are the photosynthetic appendages of fungi."

JJ Murphy is an avid student of mycology, a locovore, and nature writer. Her popular website is www.writerbynature.com.

50 Tips to put more MORELS in your basket

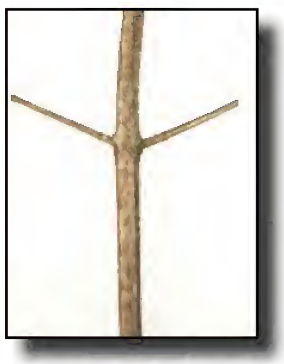
By Mike Krebill, Board Member, Prairie States Mushroom Club

1. Post morel photos around the house before the season begins.
2. Repeatedly study the pattern of pits and ridges in a photo of morels. Look for that pockmarked natural sponge pattern when hunting. It will distinguish morels from their background if you search for it.
3. Build confidence with affirmations.
4. Learn to recognize tree associates.
5. Find promising spots before morels appear. Obtain permission.
6. Buy an instant read thermometer to check soil temperatures. Begin looking for morels when daytime air temperatures reach the 60s, nighttime temperatures are in the 50s, & the soil temperature is 53° F.

7. Start hunting in the south & follow morels north with the spring. Track the progression of morels from Mexico to Canada at http://morelmushroomhunting.com/morel_progression_sightings_map.htm and http://www.morelmushroomhunting.net/report/current/mmhc_report_page1.html . (You don't have to pay to look.)
8. Register and log in to http://www.morels.com/forums/. Click on Message Boards and go to the forum for your state. You'll get feedback on when and where morels start being found and the relative degree of success.
9. As a general rule in Iowa, start looking in early April. Hunt through the third week of May.

10. Get there first!
11. Never divulge the places where you find morels.
12. Hunt when dandelions are blooming.
13. Hunt after warm spring rains.
14. Once you see a morel, look for more before picking it.
15. Mid-season morels are frequently found in clusters. Search the area thoroughly after a find and carefully move ground cover and plants that might be hiding more before moving on.
16. Map productive locations and return the following season. According to his website, (www.mushroomgear.com), morel hunting champion Alex Babich and his wife Nannette have 700 secret sites scattered over 12 states. They follow the morels north from North Carolina and Tennessee each year, averaging about 200 pounds annually.
17. Look beneath elms that are dying or have died within the last year. Most of the bark will be on the tree, but sections of it will be loose.
18. Oak trees rank second in Iowa after elms as a place to find morels.
19. Morels have been found in white pine and Norway spruce plantations.
20. Old apple orchards are another great place to hunt.
21. Don't overlook black locust groves.
22. Look around older ash trees. Their bark has interlacing ridges that form elongated diamond shapes. The limbs have opposite branching.

Elm roots



Ash tree bark and branching pattern

23. Morels have been found near aspen groves, wild black cherry trees, shagbark hickory, in river and stream bottoms with cottonwood and silver maple and sycamore, near wild grape vines and beneath Osage orange trees. In fact, morels are known to be mycorrhizal partners with 22 species of trees found in the Midwest. In the West, morels form mycorrhizal structures with ponderosa pine, douglas fir, western larch, and lodgepole pine.*
24. They have been found along fencerows, well away from trees, in lawns, and even in prairies. Stay in search mode when outdoors.
25. When times are dry, head downhill. Search the base of slopes.
26. If practical, hook up a sprinkler in your woods. Just don't let your neighbors know what you are doing!
27. Check mossy ground. Moss holds water, but it also makes morels easier to see.
28. Thoroughly investigate areas with heavy to moderate ground cover, using a hiking stick to lift screening vegetation or move leafy plants to one side.
29. Use a hiking stick to gently open up raised clumps of leaves, as morels may be pushing them up.
30. Use a hiking stick to flip over large pieces of elm bark that have fallen on the ground.
31. Early in the season, forage ridge tops, creek, and river bottoms with sandy soil, seeking areas where sunlight hits and warms the soil.
32. Check the edges of woods and fields and look around stumps where the sun can warm the soil.
33. Early in the season, when the ground is still warming up, concentrate on searching south-facing slopes.
34. Later in the season, as south-facing slopes dry out and get overgrown with vegetation, hunt north-facing slopes.
35. Hunt islands.
36. If an area floods, it takes two to three years before morels can recover, so don't waste time searching recently flooded areas.
37. Don't count on your peripheral vision to spot morels. Foveal vision, where the view of both eyes overlaps, is the sharpest, most focused, highest resolution part of our gaze. You will identify more morels if you concentrate on slowly sweeping for them using your foveal vision. (Tip from Garrett Todd.)
38. Garrett Todd also believes the time spent looking is far more important than the distance covered. For every minute of walking, spend six minutes looking.
39. If you are not seeing any mushrooms, change locations.
40. Look 10 to 20 feet away, not directly down. Morels can blend right in against the leaves on the ground if you are looking down at them. It helps to see them standing up above the forest floor.
41. Get a lower perspective in order to see the mushrooms sticking up above the ground. Squat or kneel down, or try the Groucho Marx duck walk.
42. Bring children or grandchildren with you when you hunt. Being closer to the ground, they may add many to your harvest once you help them find the first morel.
43. A dog's sense of smell is 200,000 times greater than a human's. Dogs can be trained to find morels. You can hire someone to train your dog to locate morels for $6,000, or do it yourself. Go to this link to find out how to do it yourself: http://www.shroomery.org/forums/showflat.php/Number/10247655
44. Buy books on morels to get tips from authors. Here's some I own:

a. Larry Lonik. ***Morels: True or False. The Essential Field Guide and More.*** RKT Publishing, Hazel Park, MI. 1999.

b. Chris Matherly. ***Morel Mushroom Hunting Secrets.*** www.morelmushroomhunting.com. 2010.

c. John and Theresa Maybrier. ***Morel Hunting.*** Stackpole Books, Mechanicsburg, PA. 2010.

d. Milan Pelouch. ***How to Find Morels Even As Others Are Coming Back Empty-Handed.*** The University of Michigan Press, Ann Arbor. 2008.

e. Michael E. Phillips. ***Morel Mushrooms: Best-Kept Secrets Revealed.*** Thunder Bay Press, Holt, MI. 2011.

f. Nancy Smith Weber. ***A Morel Hunter's Companion: A Guide to the True and False Morels of Michigan.*** Thunder Bay Press, Lansing, MI. 1995.

45. Watch video clips and DVDs on morel hunting. Warning: occasionally the clips posted on YouTube will try your patience as the person – eager to show you morels – is totally unaware of how hard he is making it to watch the recorded footage. The camcorder bounces up and down when he walks, then jerks back and forth as he tries to search for morels through the viewfinder. Dizzying! Some are very low resolution, suitable perhaps for viewing on a computer, but absolutely awful on a modern HD TV. Others are nicely produced and can be very instructive. Not long ago, I ordered the ***Morel Mushroom Hunting*** double-DVD set from National Morel Mushroom Hunting Champion Alex Babich. It promised over two hours of morel-hunting secrets, favorite recipes, motherlode finds, and more. Alex, his wife Nana, and even their young daughter make it look easy. (Their web site is www.mushroomgear.com.)
46. Areas burned by fires often have large fruitings of morels.
47. Since there are many variables that influence morel fruiting, keep a journal. Record the date of your hunt, the weather, the place you hunted and if it was great, so-so, or bad. Note how many you found, with advice to yourself for next season. Briefly describe the vegetation and soils.
48. Clay soils tend to stay cold and wet. When there's a drought, they can become as hard as a rock. Perhaps for those reasons, at least one author has given them a thumbs-down.
49. If you find morels near a tree, there may well be more as far out as the canopy extends, so take a little time to scope it out.
50. As ash trees become weakened by the Emerald Ash Borer, there will be a temporary increase in morel populations around infected trees. When the tree dies and loses its bark, however, morels will vanish in that spot.

All photos by Mike Krebill

First published in the Spring 2015 issue of *Symbiosis*, newsletter of the Prairie States Mushroom Club, Iowa. MikeKrebill@aol.com

Editorial Committee: ***It is important to point out to readers that published studies on the potential for morels to be mycorrhizal have shown only that some species can associate with the roots of various species of plant, in some cases forming mycorrhiza-like structures with those roots. However, the existence of a structure is not sufficient to prove that a mycorrhizal relationship exists. To our knowledge, there are no published reports of studies that have demonstrated the required physiological relationship between the presumed partners. Therefore, we feel it is premature to conclude that morels exhibit a mycorrhizal relationship with trees.***

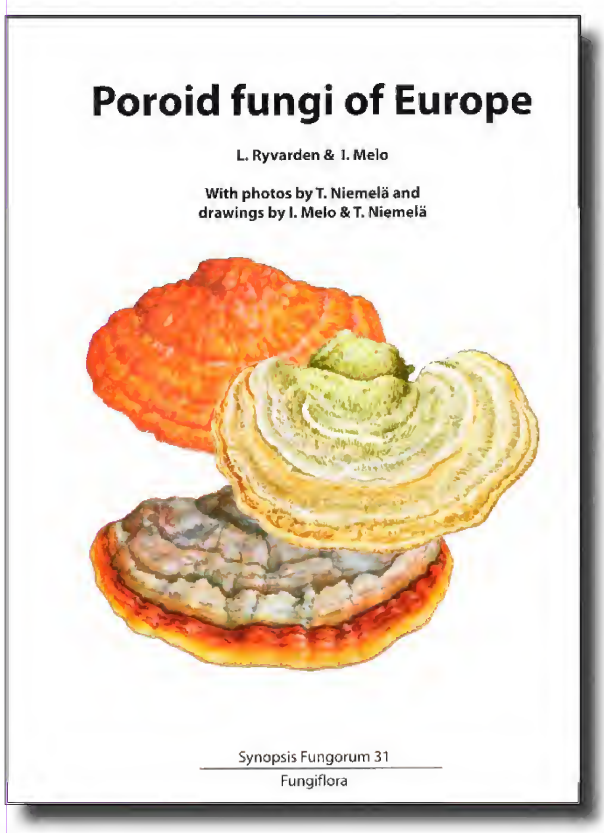
Important Message from NAMA President, David Rust

Brace yourself. **Newly designed website coming soon — new look, new navigation and new content.** We'll let you know when it goes live. Over time, we will build more features and have better tools to stay in touch with you, our members. With the new site, NAMA will able to offer online event registration which was pioneered for last year's annual foray by the PSMS; online dues payment will get easier too.

Steve Bichler has officially taken over Membership. His contact information can be found on the website. If you haven't renewed your dues, visit: http://namyco.org/join/index.html. Please welcome our new **Marketing Committee Chair, Jennifer Knox,** who will be helping us with a membership drive and other timely communications. If you would like to serve on a committee or get more involved with NAMA, please contact me by email (incredulis@yahoo.com) or phone (510.468.5014).

Poroid Fungi of Europe—Synopsis Fungorum 31

Leif Ryvarden and Ireneia Melo
2014, Fungiflora (www.fungiflora.no)
ISBN: 978-82-90724-46-2 (455 pages, hardcover, NOK700 [approximately $98 as of late 2014])



Nearly everyone who has even a passing interest in polypores will recognize the Norwegian Leif Ryvarden as one of the most knowledgeable persons in the world when it comes to this ecologically important group of fungi. He has collected in nearly every corner of the planet and authored such important works as ***North American Polypores*** and ***The Polyporaceae of Northern Europe*** (both with the late Bob Gilbertson) and ***The Corticiaceae of Northern Europe*** (with several co-authors). Users of those works know that, although they contain wonderful line drawings of microscopic features, photographs of the actual fungi are almost completely absent, thus limiting the usefulness of the books, especially for those without access to a microscope or who, like me, lack the ability to make clear thin-sections of these tough fungi. So it is wonderful news that this new book, co-authored with Portuguese polypore expert Ireneia Melo, contains lots of good quality color photographs of brackets, shelves, and crusts!

The large-format (roughly 8 × 11 inches) book opens with about 25 pages of introductory material that explains what a polypore is, describes and illustrates the more important macroscopic and microscopic features of the fruitbodies, points out that the authors used broad taxonomic concepts to make the book more accessible (and includes a list of segregate genus names not applied), discusses the decay characteristics and pathological importance of the group, provides a forest-region framework for Europe, lists sources used to compile distributions, and gives brief advice for collecting and studying polypores. This is followed by a series of keys to families and genera (and species in some cases). The book closes with a lengthy list of reference works and the index.


135

Fig. 94. *Ceriporia reticulata*. T. Niemelä 6157.

mm; margin usually sterile, white, minutely tomentose, less than 1 mm wide; subiculum very thin, white; tube layer pale to dark brownish purple, up to 1 mm thick.
Hyphal system monomitic; subicular hyphae hyaline in KOH, thin- to moderately thick-walled, with frequent branching, 1–6 µm in diam, some lightly encrusted; tramal hyphae similar.
Hyphoid sterile elements present on edges of tubes or folds, cylindrical, 3–6 µm in diam and projecting up to 50 µm, occasionally septate.
Basidia 14–20 x 4–6 µm, clavate, tetrasterigmatic, simple septate at the base.
Basidiospores 5–7 x 2–2.5 µm (some specimens on conifer substrata have spores up to 9 µm long) allantoid.
Substrata. Dead hardwoods such as *Acer, Acacia, Alnus, Carpinus, Castanea, Cornus, Corylus, Fagus, Fraxinus, Hedera, Malus, Populus, Quercus, Salix, Sorbus* and *Tilia*. Occasionally seen on conifers such as *Picea* and *Pinus*.
Distribution. Widely distributed throughout coniferous and hardwood forest regions of Europe and north to Finnmark in Norway at 70°N. Circumboreal species known also from Asia and North America.
Remarks. The species is recognized by its purplish basidiocarp with fairly large allantoid spores.

Ceriporia reticulata (Hoffm.: Fr.) Domanski. Fig. 94-95
Acta, Soc. Bot. Poloniae 32: 732, 1963. - *Polyporus reticulatus* Hoffm., Fr., Syst. Mycol. 1: 388, 1821. - *Mucilago reticulatus* Hoffm., Deutschl. Fl. (Hoffm.), Zweyter Theil: tab. 12, fig. 2, 1796.
Basidiocarps annual, resupinate, usually effused in small patches, fragile, separable; margin white, thin, arachnoid to cottony, fimbriate, with the tubes originating as isolated shallow depressions in the marginal tissue; pore surface greyish to white or grading from cream to pinkish to pale orange, pores 3–4 per mm, circular to irregular; subiculum thin, often merely a loose net of hyphae, byssoid, white to pinkish, tube layer soft and fragile, up to 1 mm thick.
Hyphal system monomitic; subicular hyphae thin-walled, often branched at right angles, loosely interwoven, 3–7 µm in diam; tramal hyphae similar.
Cystidia and other sterile hymenial elements lacking.
Basidia 15–20 x 5–7 µm, clavate, tetrasterigmatic.
Basidiospores 7–9.5 x 2–3.5 µm, allantoid.
Substrata. On dead hardwoods such as *Acacia, Alnus, Acer, Arbutus, Betula, Carpinus, Castanea, Clematis, Corylus, Erica, Eucalyptus, Fagus, Fraxinus, Hedera, Populus, Prunus, Quercus, Sambucus, Salix, Sorbus, Tilia*, and *Ulmus*, occasionally on dead polypores such as *Bjerkandera, Inonotus* and *Phellinus* species, rarely on conifers like *Picea*.
Distribution. Common throughout Europe and north to Finnmark, Norway at 70°N. Circumglobal species.
Remarks. The pores of *C. reticulata* have a distinctive net like or reticulate appearance in the field. The relatively large, allantoid spores are another diagnostic character for this species.

In between the opening and closing are 403 pages of genus and species descriptions and illustrations, encompassing, by my unofficial count, 79 genera and 391 species. Following each genus description is a key to the included species. Each species description text includes the authority, plus basionym and key synonyms where applicable; basidiocarp macroscopic features; microscopic features including hyphal system, cystidia, basidia, and basidiospores; substrate(s); distribution; and comments. Many of the species (I didn't count

them) are illustrated with a color photograph and/or detailed line drawings of microscopic features. The photos are mostly very good, although a number exhibit too-green tones or exaggerated color. In many cases, it would have been nice to have close-up inset photos of the pores to augment the aspect photo. The line drawings, especially those by Tuomo Niemelä (who also provided many of the photographs), are excellent.

The keys are fairly simple and seem likely to work well, although in many genera, the species concepts are quite narrowly drawn, which will make identification difficult in many instances. Both macroscopic and microscopic features are utilized throughout the keys. The production quality is good, although the book would have benefited from a careful proof-reading. There are many typos, small errors in English usage, and a few technical mistakes that could easily have been weeded out. Overall, however, this is an excellent authoritative contribution that, along with Annarosa Bernicchia's 2005 volume in the ***Fungi Europaei*** series, will prove valuable for use in North America when combined with Gilbertson and Ryvarden's photo-free ***North American Polypores*** until such time as we have a comparably illustrated treatment for our continent.

Steve Trudell

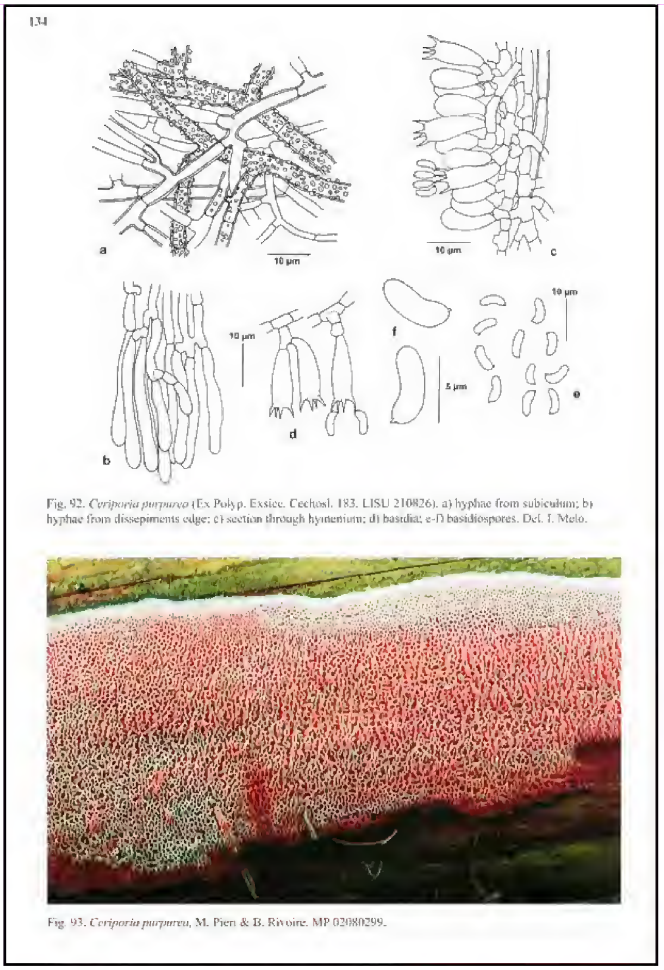


Fig. 92. *Ceriporia purpurea* (Ex Polyp. Exsicc. Cechosl. 183. LISU 210826). a) hyphae from subiculum; b) hyphae from dissepiments edge; c) section through hymenium; d) basidia; e-f) basidiospores. Del. T. Melo.

Fig. 93. *Ceriporia purpurea*, M. Pien & B. Rivoire. MP 02080299.

North American Mycological Association
Steve Bichler
6018 Illinois Lane SE, Unit B
Lacey, WA 98513-3617

Change Service Requested

Newsletter of the North American Mycological Association
THE MYCOPHILE

Mushroom of the Issue

Mycoparasitism of the Shaggy Mane, *Coprinus comatus*

The genus *Psathyrella* contains over 400 species but only one is parasitic to other mushrooms. This rare mushroom, *Psathyrella epimyces* is found primarily in the northern parts of Europe and North America where it makes use of *Coprinus comatus* as a host. Unlike most other mycoparasites commonly seen in Alberta such as *Hypomyces luteovirens*, which forms a powdery like covering over their host, *P. epimyces* produces a fruiting body complete with cap, gills and stalk. It starts by invading a fledgling *Coprinus comatus* turning it into a large coiled, tubular brown mass from which the fruiting bodies of *P. epymyces* arise. This psathyrella is characterized by its dingy white cap with veil remnants and close narrow off-white attached gills, which turn blackish brown with age. It produces black spores. Although the actual fruiting body has no distinct odor, the large parasitic mass which once was *C. comatus* smells like rotting meat when cut.

By Ken Dies of the Alberta Mycological Society
(This article and photo appeared in the Fall 2014 issue of the club's newsletter, *Spore Print)*.