LONG ISLAND MYCOLOGICAL CLUB

L.I. SPOREPRINT
1973-2015

http://limyco.org

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VOLUME 23, NUMBER 1, SPRING, 2015

FINDINGS AFIELD

Hygrophorus amygdalinus

Regular readers of this column might find it odd to find this one devoted to a species which we have been collecting for some years, rather than a newly encountered one. While *Hygrophorus amygdalinus* (sometimes under a different name) is familiar to many of us as the small gray, almond scented mushroom with a spotted stipe, encountered in various pine barren habitats, there was a time when we were hard put to put any name upon it. Initially, I misidentified it as *Hygrophorus agathosmus*, also with a strong almond odor, but that is a larger, more robust species with a considerably smaller spore and a viscid, lighter colored cap, which rules it out.

Other almond scented Hygrophorus species include *H. odoratus*, a Western species with yellow-tinged cap and a very large spore (11-14 X 6.5-8), which lacks punctae on the stipe; *Hygrophorus bakerensis, H. monticola* and *H. variicolor* are all

(Continued on page 4)

THE SEASON'S BOUNTY: 2015

Once again, Morels eluded us completely, so we have now failed to find any Black Morels at our usual collecting spot since 2011, and only a few singleton Yellow Morels that popped up here and there, except for one lucky member of the public who found thirty in Freeport under an old Cherry tree. We may have to venture off-island in the future if we wish to collect Morels. Foray chair Dennis Aita of the NY Mycological Society informed me that their Morel season was lackluster, but there were oases of plenty, as witnessed by our webmaster Dale's unexpected bonanza of Yellow Morels on May 17 in Ulster County.(See LI Sporeprint Summer 2014.) Mean temperatures were below normal Jan thru March, and the consequent slow soil warming delayed Spring fruiting of Morels somewhat. Will this year's deep freeze, with the coldest February in eighty years, cause an even more pronounced delay or will the insulating effect of deep snow cover ameliorate this process? It's anyone's guess.

Peg & Friend

Overall, last year was a considerable improvement over 2013, when dry conditions forced us to cancel 18 forays; only 9, half as many, were cancelled in 2014 due to lack of fungi. June, July, August, and September were all below normal in rainfall, which corresponded to the cancellations during this time period, although we did hold six successful forays in these months. There was certainly no lack of Chicken Mushrooms throughout the season (see photograph). On July 19, fifty-six species were collected in Heckscher, above average for this time and place. There is apparently not a simple one-to-one relation between rainfall and fungal fruiting.

Late Autumn was very productive, particularly in pine barrens and areas from Edgewood to Peconic Hills, where the target species, the Gypsy, (*Cortinarius caperatus*-previously *Rozites caperata*) was abundant. We also had prodigious harvests of edible Tricholomas *(T. equestre, T. portentosum, T. niviepes)* and the Hygrophorus were equally plentiful *(H. amygdalinus, H. ponderatus, H. hypothejus).* For those unfamiliar with these species, images can be accessed in general and specialty field guides, and on the web,

(Continued on page 3)

PRESIDENT'S MESSAGE

We are all very aware that Spring has arrived, albeit a little late and cooler. It has been a long, cold winter with lots of snow. Here in Ridge, we've had more than most. It is my hope that the mycelium are awakening now after being under leaves, snow and ice for so long. This year I will not put a pox on mushroom hunting by making a prediction as to how well or poorly conditions will be.

At our spring board meeting an addition was made to our club's mission, which will be on our website homepage: "The LI Mycological Club was formed in 1973 to improve the members' knowledge of mushrooms on Long Island, and also to contribute to public awareness of fungal biodiversity and to the science of mycology."

As usual, we need people to step up to help out with the running of our club. If you can help out, please let me know.

Maria is doing a great job of running the Yahoo group and now has the title of Yahoo Group Coordinator. If you are having difficulties joining or using the site, please contact her. She is a wonderful asset to our club.

There are no new sites on our foray list this year. However, Joel and I have been looking at different areas in Rocky Point and elsewhere that might be of interest. Perhaps we'll explore a little after a regular scheduled foray. On that topic, if anyone comes across a really fruitful area during the season, please let us know and we'll have a Flash Foray. Members will be notified by email.

I hope everyone is excited about this upcoming year...I am. If you've never attended a walk, please consider doing so. We have a lot of fun.

Make sure that your DEC permit is up to date.

See you along the trails.

EDITOR'S NOTE

Rather than the usual pontificating, we are using this space to inform our members of an unusual opportunity to *visit and tour the herbarium of the NY Botanical Gardens*, a world class collection of preserved plant and fungal specimens. The tour will be led by Dr. Barbara Thiers, Herbarium Director and emphasize the mycological collections, to which LIMC has contributed. Following the herbarium tour we will be treated to a look at some of the mycological classics in the LuEsther T. Mertz library.

The NYBG herbarium is the fourth largest in the world, the largest in the Western Hemisphere, with over seven million specimens of all plant groups as well as fungi, lichens and algae.

The tour is scheduled for Saturday, June 13, at 11 AM. Entry to the Garden is free on Saturday before noon and parking is easily available. The tour will take about an hour, after which you will be welcome to tour other parts of the Garden on your own. If you are interested in attending, please send me an email to sign up, as Dr. Thiers would like to know how many people to expect. Those who reply will receive more detailed instruction as the date draws near.

MATERIAL FOR THE SUMMER, 2015 EDITION SHOULD REACH THE EDITOR BY MAY 31

(Submissions may be forwarded by email in any format or typed.)

(All unsigned articles authored by editor.)

NEW SPECIES 2014

Abortiporus biennis-found by Carol Capaldo
Annulohypoxylon annulatum
Boletus innixus
Brefeldia maxima
Cortinarius balteatocumatilis- found & I.D.'d by Aaron Norarevian
Cortinarius croceus
Cortinarius obtusus-found by Andrew Rockewell, I.D.'d by Aaron
Cortinarius quercophilus Lamoureaux nom. prov.
Diatrype stigma
Gomphidius glutinosis- found and I.D.'d by Jacques Brochard
Gymnopilus luteofolius- found by Maria Safioti
Hygrophorus fuligineus- found by Maria Safioti
Hypomyces ochraceous
Hypoxylon fragiformis
Inocybe unicolor
Laccaria ohiensis
Merulius incarnatus
Phlebia rufa
Pholiota flavida-found by Bob Pilosov
Pluteus nothopellitus
Russula squalida
Tyromyces (Aurantiporus) fissilis-found & I.D.'d by Aaron Norarevian

Inocybe unicolor

Pholiota flavida

Cortinarius quercophilus nom. prov.

SPECIES REMOVED
Gompus kauffmanii- no specimen, no record, entered in error
Inocybe caesariata- not a valid name, see *I. unicolor* above

Laccaria ohiensis

Gymnopilus luteofolius

Cortinarius obtusus

The Season's Bounty ***(Continued from page 1)***

(not always trustworthy) but the **only** web image of *H. amygdalinus* available is that of specimens collected by LIMC and displayed by a species search on Mycoportal. (See "Findings Afield", page 1)

We added 22 previously uncollected species to our list, for an estimated total of 937 taxa. (See new species list and photos above. An updated LI species checklist is included with this issue.)

Findings Afield *(Cont'd from page 1)*

Western species with brownish rather than gray coloration.

The strongest physical resemblance to *H. amygdalinus* is exhibited by *H. pustulatus*, which although viscid, is ashy gray and also has a stipe decorated above with darker spots. However, it lacks the almond odor and has smaller spores. *H. tephroleucus* is similar enough to the latter to be considered a synonym by many authors.

Here, verbatim, is Peck's original description of *Hygrophorus amygdalinus*:

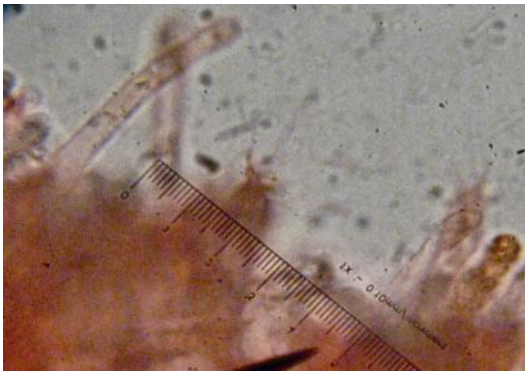
"Pileus thin, convex or nearly plane, glabrous, slightly viscid when young, grayish-brown, the margin incurve, naked, odor amygdaline; lamellae thin, subdistant, adnate or decurrent, white; stem rather long, slender, solid, equal or rarely narrowed at the base; spores oblong-elliptical, 10-12µ long, 5-6-5 µ broad.

Pileus 2.5-3.5 cm. broad; stem 5-15 cm. long, 4-6 mm. thick.

Gregarious in pine woods, Tacoma Park, D.C. November. Mrs Williams."

Subsequently, Hesler & Smith, for their 1963 monograph "North American Species of Hygrophorus", examined Peck's type specimen (1897) as well as Coker's North Carolina collection (1937) and added further microscopic details, as follows. Their spore measurement was slightly different 8-12 X 4.5-6.5 µ, and it was noted that the basidia were unusually large for a Hygrophorus, 42-74 X 7-11. Also noted was the presence of both cheilocystidea and pleurocystidea, both subcylindric in shape, about 40-58 X 4-6 µ.

All these features, the almond odor, and both macroscopic and microscopic features and details, including the oversize basidia and hymenial cystidea, are present in our specimens. Photos and descriptive detail were sent to Dr. Alan Bessette, who kindly verified our identification and added that he had never encountered *Hygrophorus amygdalinus* in the field.



Cheilocystidea, left, and basidium, right

Indeed, a search of Mycoportal reveals that other than the two collections mentioned above, the only others in existence are those collected during 1977-1979 by R. Halling and T. Baroni in the vicinity of Franklin, Massachusetts. Is it really rare or merely overlooked because of its fruiting late in the season?

Our photograph of *Hygrophorus amygdalinus* has been posted to the Mycoportal website and exsiccata will shortly be submitted to the NYBG herbarium.

IF IT'S SPRING, BEWARE OF TICKS

As soon as the temperature rises above freezing, there is a danger of encountering ticks, although their maximum numbers will not occur until Summer. Many of us are rather cavalier about taking precautions against them, but the consequences of contracting one of several serious bacterial infections are severe enough to motivate a reasonable person to avoid any possible contamination. These diseases include Lyme Disease, Babesiosis, Anaplasmosis, Erlichosis, Tularemia, Rocky Mt. Spotted Fever (Dog Tick only), STARI (Southern Tick-Associated Rash Illness), and Miyamotoi Disease, recently discovered in NA. All are serious and some can be fatal.

All possible precautions should be taken. The most effective of these is spraying all your outer clothing with the chemical permethrin (brand names Ultrathon, Sawyer, Coleman, etc.) available at Walmart, sport equipment stores, and on the web. If you intend to frequently attend forays it is most economical to purchase it by the gallon and refill a spray bottle, which is widely sold. One company that we have used is Summit Chemical (Permacide-1)which seems to have the lowest price, but a web search may reveal others,

In addition you must wear light colored clothing, tuck your pant legs into your socks, and spray exposed skin with DEET (no more than 30% solution). Some foray goers wear high boots such as Wellingtons or riding boots. Nevertheless, even with all these precaution, ticks will sometimes get through, particularly the tiny larval stages, which are barely visible. For that reason, a close scrutiny of the entire skin surface should be carefully carried out; it's more efficient if you have a help-mate. Ticks should be removed using a fine tweezers or forceps by grasping close to the skin, not so tightly as to injure it, and pulling it firmly out opposite to the direction it is embedded. See our website (click on Resources) for more details and illustrations.

TREASURER'S ANNUAL SUMMARY FOR 2014

Balance from 2013			$2515.44
Membership Dues	1340.00		
Interest/Misc. .	.19		
Book Sales	36.00		
Sub-Total		1376.19	$3891.63
Disbursements			
NAMA Dues 2015	30.00		
Newsletter expenses (includes printing, mailing, supplies, & misc. notices)	689.83		
Patches	268.68		
Treasurer's expenses (postage, supplies, picnic, board meeting, Mushroom Day, misc.)	355.21		
Sub-Total		-1075.04	
Balance as of Dec. 31, 2014			2816.59

Respectfully submitted, Margaret Horman, Treasurer

15th Annual Gary Lincoff Mushroom Foray
September 18-20, 2015 | North Park, Pennsylvania

The Western Pennsylvania Mushroom Club would like to announce the 15th Annual Gary Lincoff Mushroom Foray. The event starts with a walk on Friday, led by Gary Lincoff, in Cook State Forest, an 8,500 acre old-growth forest near Clarion. On Saturday, more activities near North Park, with walks, presentations, auction, sales, and a mushroom feast. Identification will be the focus on Sunday (with microscopes and reagents available), along with a half-day program devoted to DNA-based identification of fungi. This event does not include lodging, for which you must make your own arrangements

Prices and details are posted on the club website: http://wpamushroomclub.org/events/the-fiftteenth-wpmc-gary-lincoff-foray/

2015 Annual Wildacres Regional Foray
September 17-20, Wildacres, N. Carolina

Held at Wildacres Retreat, a conference center on 1600 acres in the Blue Ridge Mountains, the foray is limited to 40 NAMA members. Priced at $235 per person, double occupancy (no single rooms) for food and lodging.

This year's faculty has not yet been announced but will be available shortly.

The ambiance of Wildacres is unsurpassed. Early registration is advised. For more information and to register, contact Glenda O'Neal by email glendakoneal@yahoo.com or by phone at 423-246-1882. An application form may be found by accessing www.namyco.org/events and clicking on "Registration form here!" under the Wildacres Regional Foray.

2015 NEMF
39th Annual Samuel Ristich Foray
Connecticut College– New London, Conn.
July 30—Aug 2

Hosted by the Connecticut Valley Mycological Society, the Chief Mycologist will be Alan Bessette and faculty include Arleen Bessette, Gary Lincoff, Reneé Lebeuf, John Plischke, Rod Tulloss, etc.

Rates for meals, accommodations, etc. at the College dorms (double occupancy for the full 3 days) is $375. Rooms do not have en suite bathroom. Registration information and forms are now available at www.cvmsfungi.org/nemfregistration.html

LIMC members have attended the NEMF foray every year since it's inception 38 years ago. We urge all our members to join us there in this regional convocation.

■**WHAT'S THAT SMELL?** Epicures and connoisseurs have long waxed poetic over the rich, earthy, sensual aroma of truffles, regarded as intrinsic to the particular species of Tuber. Now recent research by a group of German and French scientists reveals that a diverse bacterial flora inhabit truffles. In the particular species studied, *Tuber borchii,* (aka the Whitish truffle of Tuscany) bacteria produce sulfur containing volatiles which are the major contributors to its human sensed aroma. These compounds are found only in *T. borchii* so future studies of other truffles is planned, although in 2010 mapping of the T. melanosporum genome was thought to show sufficient genes to produce the flavor by itself. (*Sulfur volatiles of microbial origin are key contributors to human-sensed truffle aroma, R.Splivallo, S. Ebeler, Appl. Micro. & Biotech. March 2015, Vol.99, Iss. 6. pp 2583-2592.)*

■**OLD WINE IN NEW BOTTLES:** An international team of over fifty researchers has sequenced 49 fungal genomes of ectomycorrhizal, endomycorrhizal and saprotrophic species to trace the evolution of symbiosis. They have determined that ectomycorrhiza are 100 million years younger than their saprotrophic ancestors, but have repeatedly independently developed the genes governing the symbiosis between fungi and plants numerous times. Moreover, they have to some extent retained (or modified) Plant Cell Wall Degrading Enzyme encoding genes, which appear to be a requirement of this symbiosis, contrary to previous views. The newly available genome sequences will help understand symbiosis development and functioning, including responses to environmental alterations, such as climate change. (*News release, Helmholtz Ctr Envir Res, available at* http://phys.org/news/2015-02-key-genes-symbiosis-mycorrhiza-fungi.html*)* and as open access journal article *Nature Genetics* www.nature.com/ng/journal/vaop/ncurrent/full/ng.3223.html*)*

■**NEANDERTHAL GOURMETS?** Micro analysis of 129 stone tools from a known Neanderthal cave site, Abri du Maras in southeast France, close to the Rhone valley, has revealed some unexpected findings. Residues showed many different materials including plant fibers, resin, hair, feathers, fish scales, skin and bone. This is interpreted as indicative of Neanderthals having a more varied diet than previously thought, including rabbit, duck, and freshwater fish. Of the 129 tools examined, only 2 bore what are interpreted as fungal spores, their rare occurrence and pattern believed to rule out chance deposition (and therefore implying their use as a cutting tool). The spores are described as dark brown, elliptical, measuring about 5 X 7 µm, believed possibly to be *Agaricus*. Certainly speculative, but intriguing. (*Impossible Neanderthals? Making string, throwing projectiles and catching small game during Marine Isotope Stage 4 (Abri du Maras, France) BL. Hardy, MH Moncel et al, Quatenary Science Review, Oct. 2013. 82, pp 23-40.)*

■ **TRICHOLOMATACEAE GETS A HAIRCUT:** This extended family has always been a convenient filing bin for whatever did not fit and despite getting whittled down over the years, remained polyphyletic. Based on a recent phylogenetic analysis of 160 taxa of the Tricholomatoid clade, (which at one point included 98 genera) the family has now been reduced to seven monophyletic genera: *Leucopaxillus, Tricholoma, Dennisiomyces, Porpoloma* (newly circumscribed), *Pseudotricholoma, Corneriella,* and *Albomagister,* the latter three are new genera. *Pogonoloma*– several taxa formerly considered *Porpoloma*- falls outside the strictly described Tricholoma family. What was formerly called *Porpoloma umbrosum* is now *Pseudotricholoma. Deconstructing the Tricholomataceae (Agaricales) and introduction of the new genera Albomagister, Corneriella, Pogonoloma and Pseudotricholoma. Marisol Sánchez-García, P. Brandon Matheny, TAXON 63 (5) • Oct 2014: 993–1007)*

■ **HOW MANY FUNGI CAN DANCE IN A LOG?** Contrary to the theological question re angels, this one has a precise answer: **398**. While we may see up to perhaps a half dozen on the external surface of a log, a Swedish study of decaying Spruce logs drilled into them at various points and subjected the extracted material to a sensitive method of molecular analysis known as 453 pyrosequencing. The resulting OTU's (operational taxonomic units– i.e., DNA defined species) numbered 1,914 with OTU richness increasing with the decay stage of the sample. Particular positions within a log harbored similar OTU's, and only a few were widespread in the logs, many being rare. (*Patterns of fungal communities among and within decaying logs, revealed by 454 sequencing. A. Kubartova et al, Molecular Ecology (2012) 21, 4514–4532)*

(Compiled by editor from above-cited sources.)

Costa Rica Mushroom Foray

May 31st -Jun 04, 2015.

This foray, a first for the region, will be held at the Selva Verde Lodge & Rainforest Reserve in the Sarapiqui region and led by Lawrence Millman, author of *"Fascinating Fungi of New England"*, assisted by prominent Costa Rican ecologist Julian Monge-Najera. Birds and other wildlife will also be explored. The price pp double is $532 and includes lodging for 4 nights and all meals. Airfare and local transport is not included.

For further details re itinerary and participation access:

http://holbrooktravel.com/dated-departure/mushroomforay or call 877-907-5360.

DO NOT DOWNLOAD THE ROGER'S MUSHROOM APP UPGRADE!!

This upgrade is listed as using 1.2 megabytes of your cellphone storage, which is equal to 5 or 6 normal sized apps, but can actually hog twice as much. It also requires an intrusive registration process. The voices raised against it are legion, and the company has now promised to offer a smaller version in the next few weeks, so it would be wise to wait for that.

WELCOME, NEW MEMBERS!

Dawn & Peter Ferguson Amy Hill Irene Stern

Jean & Michael McCormick John Pancrazi

Kimberly Boodoosingh & Slava Makarov

EAGLE HILL INSTITUTE MYCOLOGY WORKSHOPS STEUBEN, MAINE

Jun 28 - Jul 4 Crustose Lichens: Identification using Morphology, Anatomy, and Simple Chemistry (Lab fee: $40) Irwin Brodo

Modern keys from the world literature. Techniques for sectioning, staining, and interpreting the tissues of crustose lichen fruiting bodies will be introduced, with special attention being devoted to staining various ascus types with iodine. Taught by the world authority and author of "Lichens of N.A."

Aug. 2-8: Mushroom Identification for New Mycophiles: Foraging for Edible and Medicinal Mushrooms- Greg A. Marley and Michaeline Mulvey– A field identification course of the macrofungi focusing on the skills needed to identify common mushrooms using field characteristics, keys and guides while also addressing preparation of edible fungi for the table.

Sep 6 - 12 Ascomycetes, Waxcaps, and Other Fall Fungi of New England (Tuition: $525) Alan Bessette and Arleen Bessette- "Combining forays and fieldwork with classroom and lab study, we will address the biology and ecology of New England fungi, including recent taxonomic changes in the field of mycology."

(Unless otherwise noted rates are $475 for the seminar; $195 for accommodations (double); and $245 for the meal plan. Access http://www.eaglehill.us/ for more detailed information and to apply online.)

COMA's Clark Rogerson Foray

Sept 5-8

Details are unavailable at press time, but this annual foray will once again be held at Camp Eisenberg in Copake, NY where Gary Lincoff heads the mycological staff assisted by Bill Yule, Leon Shernoff, and others. Housing is in hotel style rooms, air conditioned and with en-suite bathroom. All meals included. Last year's cost was $315 per adult for the entire 4 days; children 3-12 years old $245. Day visitors $60 adults, $35 children.

This year's rates and registration details will shortly be available on the Connecticut-Westchester Mycological Association website by accessing comafungi.org/special-events/ and clicking on "Clark Rogerson Foray".

2014 NAMA ANNUAL FORAY

Sept. 24-27, 2015

Black Mountain, North Carolina

The Asheville Mushroom Club and the Mushroom Club of Georgia are co-hosting the next annual NAMA foray. The foray will take place September 24 -27, 2015, at the YMCA Blue Ridge Assembly in Black Mountain, North Carolina, with Alan Bessette as Chief Mycologist. It will be based at a beautiful conference center situated on 1,200 acres of wooded mountainside. This section of the Appalachians is one of the most biologically diverse forest communities in the world. Accommodations include hotel style rooms with private bath and air conditioning.

Registration forms will soon be available at www.namyco.org

(NAMA membership is required to attend this foray but can be paid at registration.)

IN THIS ISSUE

"THE WONDER IS THAT WE CAN SEE THESE TREES AND NOT WONDER MORE"
Ralph Waldo Emerson

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