LONG ISLAND MYCOLOGICAL CLUB

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L.I. SPOREPRINT

HAPPY NEW YEAR!

VOLUME 13, NUMBER 4, WINTER, 2005

FINDINGS AFIELD

Some mushroom species which are common elsewhere in NY State and the region generally are seldom encountered here on Long Island. Examples are the smooth chanterelle (*Cantherellus lateritius),* pig's ear (*Gomphus floccosus),* false morel *(Gyromitra esculenta),* and others which I am sure

Agrocybe erebia

you can think of. The reasons for this are obscure, and can probably be ascribed to our particular set of flora in combination with soil characteristics and micro-climate. These latter elements, on the other hand, permit us to host a variety of species, mostly of Southern distribution, that are not found elsewhere in the state. These include, among others, a variety of *Amanitas* and some representatives of the Boleteaceae, e.g., *Amanita tephrea* and *Xanthoconium straminium*.

Today, I will tell you of one of the former, a species said to be

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NEMF 2005: The Blast Furnace Foray

by Joel Horman

If NEMF 2004 was the "Hurricane Foray" (coming on the heels of Hurricane Frances) as Gary Lincoff christened it, then NEMF 2005 (Aug.11-14, Mt.Alto, Pa.) was the "Blast Furnace Foray", with temperatures approaching 100°, and occurring during the Northeast's worst summer drought in 25 years. (On our trip home, the auto thermometer actually registered an amazing 102°.) Luckily, some sparse rainfall occurring in the area shortly before the foray provided some relief for parched mycelia.

Shrinking from the enervating heat, I avoided field trips and confined myself to the air conditioned lecture rooms, which turned out to be both absorbing and rewarding, thanks to a stellar cast of academics and lecturers. A partial list includes Sir Roy Watling, curator emeritus at the Royal Botanic Gardens at Kew; Dr. Roy Halling, curator of Mycology at the NY Botanical Garden; Dr. Bart Buyck, curator of the Mycology Herbarium at National Museum of Natural History in Paris; Dr. Coleman McCleneghan, authority on the Strophariacea; Douglas Bassett, naturalist at Letchworth SP with expertise in the Polypores; and such perennial favorites as Ernst Both, Glenn Freeman, Roz Lowen, Rod Tulloss, and Tom Volk.

While the lecture rooms were air conditioned, the main exhibit space containing the collection tables was not, and specimens quickly deteriorated into a putrescent, malodorous mess. Many therefore never made it into the lab and eluded precise identification. Nevertheless, a total of 339 species were tallied, 42 new to the NEMF master list. The complete list may be accessed on the NEMF website: http://www.nemf.org/files/checklists/05_Alpha_Coll_r1.PDF. Some of the species which the attending mycologists found interesting

Participants peruse the collection tables.

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MEMBERSHIP RENEWAL APPLICATION INSIDE

PRESIDENT'S MESSAGE

For my final message of 2005, I want to thank all the people who help me out throughout the year. (I usually do this at our annual luncheon but decided not to because some helpers could not make it.) Monique, our recording secretary, has her hands full with going to school and working full time and still has time for us. Jacques is our Foray Chairman, responsible for selecting the time and place of our weekly excursions. He keeps track of when and where it would be most productive to find interesting and tasty mushrooms. (Unfortunately, he has no pull with Mother Nature.) Dale is our Webmaster: this newsletter looks great online! Our board members give their time to decide what direction the club will follow. They are Rita, Paul Fox, Ken, Lyle and Lenny. Last, but not least, is my fellow mushroomer, Joel. He spends many hours researching articles, writing his own stories, gleaning other newsletters and editing the newsletter. Our very long list of mushroom species is maintained by him. He also corresponds with mycologists and other interested people to keep us up to date on developments in the world of mushrooms. Gen and Paul are always eager to help arrange the luncheon; Gloria and Dom find interesting items for our raffle. And all those who carried out their assignment as foray leaders, as well as the generous souls who brought their finds to the forays to share. Without all this input, our club could not function. .Many, many thanks to all.

By the way, I just want to mention that I would like to change the venue for next year's luncheon. There were a few things that were unsatisfactory this year, not the least being charged for people who could not make it. If anyone knows of a centrally located restaurant in Nassau that is not too expensive, kindly let me know.

Thanks to all of you who reelected me for the next three years. It is a fun position to have and I enjoy it. (Remember that you can bring any idea or concern to my attention and I'll try to take care of it.)

Happy mushrooming in 2006!

EDITOR'S NOTE

Taking a cue from our President's message, as editor, I would like to thank all those who submitted articles to the past year's newsletter, primarily Dom Laudato, Lance Biechele, and Peggy, who also functions as an indispensable editorial assistant and layout critic. Thanks also to those who forwarded items and articles for possible topics to include in the Sporeprint, among them Bunny Eisenson and Lenny Schechter.

Donning my other hat, as species list-keeper, thanks are due to all who either found or identified (or in some cases, both) species previously unrecorded and not included on our checklist. If I am inadvertently omitting someone, I apologize. Thanks are due to Dom Laudato, Lyle Peters, Tony Mish, Anna Warasila, and particularly to Aaron Norarevian, who graciously shared his expertise and wide experience.

Lastly, please consider sharing your own experiences with your fellow mushroomers by submitting a short account of a good day afield, an interesting fungal encounter, a distant foray, a funny episode, or anything else mushroom related. It doesn't have to be complex or sophisticated.

MATERIAL FOR THE SPRING, 2006 EDITION SHOULD REACH THE EDITOR BY MARCH 10TH

(Submissions should preferably be typed or submitted in Rich Text Format on PC floppy disk or by e-mail)

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FORAY HIGHLIGHTS:

Caleb Smith S.P., Sept. 3: The drought persisted, but this site has running streams and low lying wet areas, so we (Peg and I, plus Eric Powers and Barbara LaGois) managed to find 22 species by leaving no twig unturned, including two previously unrecorded, *Cortinarius luteus* and the slime mold *Stemonitis axifera.* (See photo) There was a huge fruiting of *Armillaria tabescens,* enough for a dozen pickers.

Cortinarius luteus

Plicaturopsis crispa

Unk. Cordceps sp.

Bethpage S. P., Sept. 24: Continued drought, with only 18" of rain, about 50% of normal, with a resulting total of only 3 species of Polypores, the lowest count ever.

Bethpage S.P., Oct. 15: The rains came; in the week before, over a foot of rain fell in most places on L.I. The species total was 25, with fair amounts of *Agaricus campestris* and *arvensis,* some honeys, and puffballs.

Peconic Hills C.P., Oct. 29: More rain. 50 species found, with many Gypsies and *Cantherellus ignicolor,* some blewits and *Suillus.* Also 5 species of Amanita (one unidentified), 3 Cortinarius, 5 Lactarius, 5 Russula, and 3 Tricholoma. Several previously unrecorded: *Cortinarius mucifluus* and *Entoloma sericeum;* and several still being examined by experts (*Cordyceps* and *Rhizopogon species).*

Wading River H.S., Nov. 5: 20 species, including *Albatrellus ovinus, Leccinum aurantium* and a few blewits. Several species of *Amanita, Collybia, Russula* and *Tricholoma.*

Stemonitis axifera (7mm)

Cortinarius mucifluus

Pholiota limonella

Bethpage S. P., Nov. 12: 15 species total, including 3 of *Agaricus,* 2 of *Amanita,* and 3 of *Russula.* Two previously unrecorded: *Hebeloma mesophaeum* grp*., and Russula sericeonitens,* similar to *R.vinacea.*

Chrystie Preserve, Nov.19: 22 total species, including good amounts of Oyster and Bricktop, and some *Suillus granulatus.* Two previously unrecorded, *Mycena copiosa (*with milky fluid), and *Pholiota limonella.*

Wellwyn Preserve, Nov.26: The final foray of the year produced 14 species, with good amounts of Bricktops and Autumn Oyster, both frozen solid, so they had to be snapped off rather than cut. Most others were polypores, other than 2 species of *Mycena.*

NEMF ***(Continued from page 1)***

enough to award the collectors were *Hapalopilus croceus,* rarely found; *Phaeocolycium polyporium,* parasitic on *Trichaptum biforme; Hypocrea avellania,* another parasite, found on *Gymnopus (Collybia) subnudus;* and *Lactarius allardii,* a Southern species.

LIMC members Susan Gaeta, Lyle Peters, Doris Fleischer, and Sherri Gaeta beam over Doris's find.

Dr. Bart Buyck lectured on the Russulas of the eastern United States, which he was drawn into researching after a stint of studying them in Central America. In this way, he is carrying on the work of the late Ray Fatto, and adding to it by the application of DNA analysis. He estimates that there are currently 330 endemic U.S. species, plus 87 European taxa which occur in the U.S. If that is not sufficiently daunting, many undescribed species exist. Dr. Buyck has divided the *crustosa/virescens* complex into 12 new species partly by the variation in dermatocystidea. One despairs of ever making field identifications with any degree of confidence. For those interested in delving into the minutiae of Russula identification, Dr. Buyck has established a website containing a synoptic key based on Fatto's, which has been updated to include additional species. The "Russulales News" may be accessed at: http://www.mtsn.tn.it/russulales-news/welcome.asp.

Amanita considered from a worldwide evolutionary perspective, presented by Dr. Rod Tulloss, was fascinating in its treatment of the evolution and biogeographical distribution of this genus, an approach that would be illuminating if applied across the board. Endemism (local speciation) is the rule here, Dr. Tulloss explained, although there are circumarctic distributions of sister taxa which can be considered relicts, or survivors from earlier times. One example of this might be the pink-gilled Amanita (sp.53) discovered recently by the LIMC, whose closest relative is the Chinese endemic, *Amanita incarnatifolia.* Similarly, there are species in New Zealand, Australia, China and India which are Gondwonalandian relicts, still similar after 80 million years.

Evolutionary processes also provided the background for Dr. Roy Halling's talk on the mushrooms of Costa Rica. Again, local endemism, relictual disjuncts, and clinal occurrence may be found, but in a latitudinal arrangement rather than the circumpolar array emphasized by Rod Tulloss. This is based upon glacial invasions, which drove a southward movement of taxa, and subsequent rejoining of North and South America eight to nine million years ago, which created a new mix. An analysis of the Boleteaceae of the two regions shows a high level of generic similarity, but low level of species similarity, due to speciation due to the above mentioned dynamic. Of the 22 genera of boletes worldwide, 19 occur in Costa Rica, of which 17 also occur in the U.S. Of the Boletes, 38% are the same, as are 25% of the Leccinum, and 100% of the Strobilomyces (only 3 species). The oak forests of Costa Rica contain a great diversity of macrofungi, a one hectare plot producing 225 species over a 3 year period. An interesting development was host switching by mycorrhizal species: Leccinum, usually associated with conifers, was demonstrated to be symbiotic with blueberry (*camarostaphyllis* sp.) in the páramo (dry forest) as was other genera such as *Cortinarius.*

Recent developments in the genus *Suillus* was addressed by Ernst Both in his usual amiable fashion. DNA amplification has resulted in the elimination of *Fuscoboletinus,* all species now being relegated to *Suillus.* Several species have been unequivocally shown to be identical in the U.S. and Europe, e.g., *S. bovinus,* and *S. granulatus,* while others are undoubtedly endemics. While exclusivity of symbiotic hosts is the rule in *Suillus,* some, such as *S. brevipes,* can have multiple hosts, among them *Pinus banksias, contorta* and *taeda. (*In our region *brevipes* is associated with pitch pine, *Pinus rigida.*) In another example of host-switching, *S. subaureus* became associated with yellow birch when its customary host, white pine, was no longer available.

The phylogeny of the *Strophariaceae* has also undergone changes, as Dr. Coleman McCleneghan explained in her lecture, much of it counterintuitive. The genus *Psilocybe* has been expanded, and both *Hypholoma* and *Stropharia* have been subsumed into it in the most recent (9th) edition of

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GLEANINGS

■ **DEER, HEAVY METALS, & FUNGI:** Mushrooms are known to be a seasonally important food source to Roe deer in the forests of Slovenia, where this study found that heavy metal accumulation, particularly mercury, was associated with the summer-autumn peak of fungal growth. Microscopic determination of fungal spores present in deer feces showed their presence in 89% of droppings, which contained *Calvatia,Hypholoma, Coprinus, Russula, Elaphomyces, Xerocomus, Enteloma, Amanita, Cortinarius, Agaricus, Inocybe, Boletus, Macrolepiota, Suillus and Pluteus* genera. *(Science of the Total Environment. Vol. 324 (1-3). May 25, 2004.)*

■ **EVERYTHING'S REALLY ALL RIGHT IN KANSAS CITY:** A man cutting firewood near the northwest community of Maysville found what is probably the largest sulfur shelf of record at the base of a maple tree. When he cut it off with a saw, part of it, a larger clump growing on top of the one he got, fell into the creek. He carried the remaining piece about half a mile to his pickup and when weighed at a grocery it tipped the scales at 56 pounds. It was 30 inches wide and 16 inches tall. The Guiness Book of World Records lists the largest edible mushroom as a 48 pound, 8 ounce giant puffball. (*The Kansas City Star, Oct. 17, 2005)*

■ **MORE WOOLY ADELGID EFFECTS:** Fordham University researchers have determined that infestation by the wooly adelgid has resulted in a loss of 65% of the hemlocks in stands where they were dominant compared to 51% in mixed stands. Some 5-10% of the hemlocks show signs of resistance, having replaced some of the foliage lost in the early years of the study. Below ground, other effects are taking place, with fewer ectomycorrhizal root tips, lower ectomycorrhizal species, higher water content and soil nitrates in stands infested with the wooly adelgid. Hemlock are known associates of such desirable mushrooms as *Boletes, Lactarius,* and *Russulas. (Black Rock Forest News, fall 2005, vol xv, no. 3)*

■ **MAY THIS HOUSE BE SAFE FROM AMANITA:** A study of the dispersal of *Amanita muscaria v. alba* spores measured concentrations per cubic meter of air over a week and at different distances, including inside a nearby residence. Spore release occurred mostly in the first three days following cap expansion, with a peak during night hours and rain. Highest concentration was 281,738 spores although counts in the 70 thousands were more representative during the first three days. After that, spore dispersal dropped by 95%, with only 5% reaching as far as 5 meters. Less than .1% were found inside the residence. An interesting side finding was that spores released earlier were significantly longer (but not wider) than those released later, outside the measurements given by most authors. *(Mycological Research,2005, 109)*

■ **FUNGAL ASSISTED JUMPING GENES?** Many genes can "jump" between closely related single-celled organisms, but those that can make the leap from distantly related complex organisms are rare. Harvard researchers have found two similar gene sequences in Rattlesnake Fern and a flowering plant group (Santaneles), that includes parasitic mistletoes. Since the latter have intimate contact with fern cells, it is suggested that either the genes moved directly, or did so by using fungi, which live within the roots of many distantly related plants. *(Abstracted in "Natural History, 12/05-1/06, from Proceedings of the Royal Society B 272, 2005)*

■ **ANOTHER REASON TO EAT WILD MUSHROOMS:** The gourmets among us need no encouragement to collect and consume wild mushrooms, but Penn State food scientists have found it may be healthy to persist in this pursuit. A new method of chemical assay has shown that mushrooms are a better natural source of the antioxidant ergothioneine than either wheat germ (12 times more) and 4 times more than chicken liver, previously the top rated sources. Of the most commonly consumed mushrooms, portabellas and criminini contain the most of this substance, followed by white buttons (*Agaricus bisporus).* A standard three ounce serving has about 5 milligrams, but "exotics" such as shiitake, oyster and maitake (*Grifola frondosa)* can contain up to 13mg or 40 times as much as wheat germ. Best of all, ergothioneine levels do not decline upon cooking. (*Identification and Quantification of Ergothioneine in Cultivated Mushrooms by Liquid Chromatography-Mass Spectroscopy* Aug. 31, 230th American Chemical Society meeting. Online synopsis at sciencedaily.com)

(*Compiled by editor from indicated sources.)*

AN OLD MYSTERY SOLVED

For many years, rumors have reached us regarding the existence of another Long Island mushrooming group somewhere on the east end. Very few details were given: no name, place, or even whether it existed in the past or present. Despite the lack of any facts one might use to track it down, the rumors never died but continued to surface from time to time, originating from multiple sources. Now, thanks to Dennis Aita, foray chief of the NY Mycological Society, actual documentary evidence of the existence of this club has come into our hands, in the form of a NY Times article dated Aug. 2, 1984.

The dateline is Southold, LI, and the title reads, "A Mycologist is Enthralled by Fine Crop"; it deals mostly with Francis Robert Schneider, a k a Dr. Mushroom, the founder, president, and screening committee of the Eastern Long Island Mycology Club. Applicants for membership apparently had to be screened in order to determine that they were serious naturalists, and not merely gourmands. (In the distant past, our own club followed the same strictures.) Mr. Schreiber, of Hungarian birth, held degrees in horticulture and agronomy, but worked for many years in the steel importing business. He was 79 years of age at the time the article was written. He and his wife, Edith, lived on Great Hog Neck, a North Fork peninsula where Cedar Beach Pt. County Preserve is located. Although the location of their hunting grounds was "carefully guarded" the latter must have been one of them.

Membership in 1984 amounted to 35 members, not a low number considering that our club probably had a similar number at that time. Among the edibles they hunted were chanterelles, boletes, Russulas, and "lentini", a puzzling reference, since most of the genus *Lentinus* are too tough to eat. The article includes a photo of Mr.& Mrs. Schreiber examining a collection of Boletes.

After 1984, there is no further reference in the online archives of the NY Times or Newsday to the Eastern Long Island Mycological Club or to the Schreibers. The club seems to have vanished, perhaps after the presumed death of its founder and president.

Findings Afield ***(Continued from page 1)***

common throughout the region, but which does not appear on our checklist, and which I did not encounter until this year, following the foot of rain which ended the worst summer drought in 25 years. It is described by Bessette as "common, especially in urban areas where hardwood chips are used for landscaping." Known as the "Maple Agrocybe", it is said to be either inedible ("bitter and unpleasant"), or of poor quality. It can also grow on decaying hardwood logs and stumps, and according to some authors, in the soil in woods, particularly dark, rich forest; it is also found in Europe. *Agrocybe erebia*, to address it by its Latin name, was found on a lawn in Rocky Pt. Its dark brown, viscid cap and persistent tannish annulus gave it an aspect that was somewhat puzzling at first glance, but the dull, dark brown sporeprint, and the poreless spore, helped to narrow down the choices. No other *Agrocybe* is as dark and viscid. Judging from the photos I have viewed, it is more than a little variable in appearance.

Our specimens were very dark, extremely viscid, and with a cap up to 2.5 inches wide. The hygrophanous cap faded to a medium ochre brown on drying. Odor and taste were non-distinctive, the flesh pale brown. Gills were close, brown, slightly decurrent. All in all, a handsome species of erect stature. We will add it to our checklist of Long Island mushroom species.

TIME STRAGGLES ON

….I wish to remark that one of the greatest needs of mycology in this country is a comprehensive illustrated work on the larger fungi. The various countries of Europe are well supplied with such works, some of them quite old and very elaborate. Had it not been for these books, the work of many mycologists would have been practically lost or left in such a state as to be more or less useless. America has nothing to compare with any of the illustrated works on fungi in Europe. The need of such a work is fully realized by all; but It would require not only a well-equipped herbarium and library, but also a considerable amount of money…

There is nothing that would give a greater impetus to the study of fungi in all parts of North America than the publication of such a great illustrated work.

William J Murrill, *Amer. Journal of Botany, Vol4,#6, June, 1917*

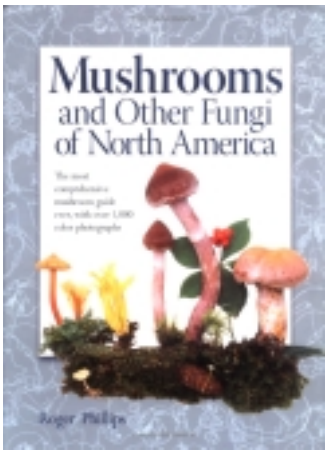
NEMF ***(Continued from page 4)***

the *Dictionary of the Fungi. Pholiota* remains unmolested and intact. It is sometimes difficult to separate *Stropharia* and *Pholiota,* and Dr. McCleneghan offered a useful table for doing so, which will be published in the *Sporeprint* at a later date. It helped me to tentatively identify a puzzling specimen found on LI (independently by Dom Laudato and myself) as *Hypholoma radicatum,* a Southern species. She was gracious in accepting the specimen for further examination, and we will report her findings here when they are received.

The bewildering array of crusts and excrescences dwelling on wood are bewildering in their seeming lack of defining characteristics, but seem to be an open book to Douglas Bassett, naturalist at Letchworth S.P., who has documented 126 species there, of the 303 occurring in the Northeast. The most inclusive guide, *North American Polypores,* has drawing of microscopic characteristics but not of fruitbodies, making identification troublesome for all but the most advanced. *Matchmaker,* the free Pacific Northwest Key Council PC program, has photos of about 600 non-gilled species including many polypores, but no key.

Lest my emphasis on the lectures leads the reader to think that all was serious study and no fun, that was far from the case. The foray was enlivened by evening social gatherings (no alcohol on campus, alas) faculty awards for mushroom highlights, and impromptu gatherings of old acquaintances. The always anticipated Mycophagy event was enlivened and enhanced by an iron chef competition. About 150 attendees from 29 clubs as far away as Wisconsin, Oregon and Montreal were present, including a dozen members of LIMC. In 2006, The 12th Annual Samuel Ristich Foray will take place in Saint Anthony's Hermitage, Lac Bouchette, Canada in the boreal forest 150 miles north of Quebec. Will we see you there?

MYCOPHAGY SESSION *al fresco*



AN OLD FAVORITE RETURNS

Out-of-print for over 10 years, and originally selling for $24.95 in softcover, the price of original edition of 1992 reached over $100 on ebay. It has now been reissued (but not updated, as is claimed) and is available in hardcover from Amazon for 26.37 plus tax with free shipping. .While the same omissions (no *Hohenbuehelia* or *Volvariella*, for example) and minor errors remain, this is a very useful reference for mushroomers, particularly beginners, because of the extensive photographs, which number over 1000. The Amazon website permits some browsing within the book, so one can access a few pages of photos to get an idea of the contents. It is a good addition to any serious mushroomer's library.

WELCOME, NEW MEMBERS 2006

Adelene & Robert Betts **Mike Ihnatenko**

Jessica Bennet & Adam Cresko

Dino Oranges **Rita & Gary Reiswig**

Bob Cresko shows a *Calvatia gigantea* found by son Adam, our newest member.

IN THIS ISSUE

Chance, in league with danger, created both the eye and the orchid, the ocelot and the man. ***Edward Rothstein, NY Times11-18-05***

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MEMBERSHIP RENEWAL APPLICATION INSIDE