

ADDING TO THE AGROCYBE PUZZLE

by Dom Laudato



Photo by Peggy Horman

Have you had the experience of carefully observing and documenting the morphological features of a mushroom -such as the familiar *Agrocybes* that appear in late April or early May- only to discover that the descriptions, found in the dozens of more recent mushroom guides we seem to collect, do not contain mention of a glaringly pertinent missing piece of the puzzle you have before you?

David Arora is one of my favorite mycology writers and rightfully states that "Agrocybe is a difficult genus to characterize".¹ When one attempts to place an epithet on a specimen, *Agrocybe praecox* specifically, that one believes is precisely what one has in hand, one comes to the realization that "complex", sums it up. Alan

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Going Native

by Joel Horman

Although LI has many parks, both state and county, a good many of them are composed, at least in part, of non-native trees and shrubs, and are therefore uncharacteristic of the historical habitat which has evolved in place. One such remaining habitat, usually known as the pine barrens, is our quintessential native woods. Technically, not all of it is "pine barrens", although much of it can be characterized as pitch pine/scrub oak environment, with variations depending upon the soil characteristics, drainage, understory, etc. A good portion of it is oak/pine or pine/oak dominated forest, with tracts of other species such as juniper or poplar. Much of it is under the jurisdiction of the NYS Dept. of Environmental Conservation, and it contains the largest tracts of preserved forest on LI. Suffolk county is the second largest landowner of such forests, and between the two jurisdictions, over 100,000 acres are protected, the largest forest preserve in NY other than the Catskills and the Adirondacks. Chief among these tracts are the Rocky Point Natural Resources management area (5140 acres), the David A Sarnoff Preserve (2,183 acres) and Brookhaven County Park (2,500 acres).



Photo by JHorman

Collection of *Boletus Edulis* found in the Pine Barrens.

It is in these habitats that we have found not only a great number of new and interesting species, but also large amounts of edible mushrooms. For example, last year we found the largest number of *Boletus*

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PRESIDENT'S MESSAGE

2003 is the 30th anniversary of LIMC. At this time, I would like to thank all those that make this club possible:

Dom, for being our fearless leader for **nine** years and for always writing on topics of interest to us all;

Bunny, for being a dedicated Species Recorder over the years;

All the faithful members who help set up Mushroom Day and identify specimens for the public; Val & Vicki, our diligent espresso providers;

Paul and Gen Lozowski for arranging our annual luncheon at the Forest Inn; (The last one was the best yet with a record 27 people attending.)

Our Board Members: Monique, Jacques, Dale, Joel, Rita, Sardo, Paul Fox, Paul Horman, Lenny and Sue who all gave up a Sunday afternoon

for last week's board meeting. (Rita again for graciously opening her home to us.)

Joel, for publishing our newsletter and for taking the time to research topics, write articles and just about do everything else it takes to put out a really good paper;

Jacques, for being a knowledgeable Foray Chair and unfailingly right in his choices;

Monique, for giving her time as Recording Secretary despite working and attending school;

Dale, our talented Webmaster, who created and maintains our wonderful web site;

Lastly, all members, old and new (including Christopher Fox, our youngest, born Jan.'03). **YOU** are the reason for the club.

"Think rain"

EDITOR'S NOTE

In one welcome bound, Spring is upon us. Snow melts, streams gurgle, buds burgeon nascently, and songbirds appear magically in their usual haunts, tentatively breaking our winter silence with their melodic voices. These are the visible changes. What we do not see are all the hidden presences, especially the dormant mycelia of the fungi whose appearance we so anxiously await. We must wonder how they have fared through this severe winter, which deposited about 5 feet of snow upon us and sent temperatures plummeting into

the single digits night after frigid night. There is reason to believe that snow cover functions as both insulation and as "poor man's fertilizer", as farmers know it. In other words, these conditions may be beneficial, rather than adverse, to this season's mushroom fruiting. In contrast to last year, the first few months of 2003 have produced above normal rainfall. So, it is not unreasonable to hope for a productive year, if present conditions continue. But, as financial analysts caution, past performance is no guarantee of future trends.

MATERIAL FOR THE SUMMER, 2003 EDITION SHOULD REACH THE EDITOR BY MAY 30TH

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



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Agrocybe Puzzle*(Continued from page 1)*

Bessette characterizes *Agrocybe* as, " A complex of several forms and possibly several species . . . This complex needs further study." ²

On May 3, 02, I came upon beautiful, fresh groups which field examination led me to believe were *Agrocybe praecox* (complex, group, type, etc.) . A conservative estimate would be that 150+ made up the several groups in the area I explored. Everything fit. The time of year, habitat, familiar cap color, texture, gill color and so forth. At home, removing the cap to prepare the mushroom for a spore print, I noticed that the stipes were hollow. The specimens fit all of the criteria for an on -the-spot identification except for the puzzling fact that the stipes were **hollow**. They were not stuffed, solid or fibrous, as many of our contemporary guides list, and for the moment the missing piece of the puzzle, the glaringly hollow stipe, became another source of mushrooming frustration. Microscopic spore sizes, spore color and other spore features gelled. The stipes varied in diameter from 6 mm to 1.3 cm; the walls of the stipes appeared as smooth as the inside of a garden hose, averaging 1.2 mm in thickness. The stipe lengths measured approximately 4 cm to 7.5 cm.

Curiosity impelled me to learn whether somewhere in the literature, an *Agrocybe praecox* with a hollow stem was listed. Persistence paid off.

There, in some of the much older field guides, listed under the earlier genus *Pholiota*, the stem was described as " stuffed or hollow " ³ and " pithy or hollow " ⁴. It seems that some earlier authors included that missing term, " hollow ", which settled the problem as far as I was concerned. The specimens I collected were most likely what we refer to as *Agrocybe praecox* and although keying them was indeed perplexing, the humor presents itself when one keeps in mind that *complex also* refers to the many involved combinations of the various parts of the *Agrocybe*.

As an aside to the preceding, a few years ago, in many locations, unidentified Agrocybes that were not encountered previously, made their appearance. Were they also Agrocybe praecox complex?

It might be helpful to keep in mind that A. praecox can also have slightly decurrent gills albeit that most guides omit that little gem as well.

1. David Arora, *Mushrooms Demystified*, P. 469.
2. Alan Bessette, *Mushrooms of Northeast North America*, P. 57.
3. Charles McIlvaine, *One Thousand American Fungi*, Rev. 1973, P. 272.
4. Nina L. Marshall, *The Mushroom Book*, 1905, P. 84.

To Peggy Horman, President, LIMC,

Thank you, the Board of Directors, and the LIMC members for the engraved 'Shroom Stick and the 'Shroom Sack. The personal touch makes it especially treasured. It was very thoughtful of you and I will certainly make good use of them. Being somewhat taken by surprise at the " better-than-ever " luncheon, I was compelled to search for words befitting the moment and I fear they were incomplete and needed to be addressed to the entire Club membership, many of whom were not present. Hopefully, this public " Thank You " will pass muster.

Thank you once again for the wonderful gesture and practical gifts.

As to my future intentions re mushrooming with the LIMC, I intend to participate as fully as I can in whatever capacity my tal-

TREASURER'S ANNUAL SUMMARY FOR 2002

<u>Balance from 2001</u>		\$1792.01
<u>Receipts</u>		
Membership Dues	880.00	
Goods sold (Mushroom Day)	32.00	
Interest	<u>26.68</u>	
Total	938.68	2730.69
<u>Disbursements</u>		
NAMA affiliation 2002 & 03	60.00	
Newsletter expenses (includes printing, mailing, supplies, & misc. notices)	383.43	
Treasurer's expenses (Includes luncheon & gifts, web site, postage, & misc.)	<u>330.41</u>	
Total	773.84	
<u>Balance as of Dec. 31, 2001</u>		<u>\$1956.85</u>

THE LONG ISLAND MYCOLOGICAL CLUB: FORAY RULES

Forays take place on Saturday mornings, starting at 9:30 or 10:00 AM, in parks and forests on Long Island, from Hempstead to Wading River. Please read "Foray Directions" carefully for time, place and directions. Forays are free to all LIMC members; non-members may attend one foray for a fee of \$5 -which is applicable towards membership- but must become members thereafter in order to continue to attend. Members are permitted two free guest visits per season. THE 1ST TWO (MOREL) FORAYS ARE OPEN ONLY TO MEMBERS. No member should visit any scheduled site for collecting purposes in the week prior to the scheduled foray. Some parks may charge an entry or parking fee.

Forays will leave the meeting place at the scheduled time, so be prompt. Bring lunch and collecting equipment, which if inconspicuous is less likely to be questioned. For safety, all foragers are cautioned to remain with the group, and notify the foray leader if they wish to leave early or collect on their own. The foray leader will take attendance, collect any fees and have guests sign in; and arrange for an alternate if necessary. Parts of the terrain may be hilly, rocky, muddy, and difficult to traverse. Poison ivy is widespread, as are ticks that cause Lyme disease. Precautions should be taken against the latter, including insect repellent and protective clothing. Forays end at noon, at which time we have lunch and discuss the day's finds.

Try to be conservation minded. Do not gather more than you can use and do not deplete the resource by harvesting an entire fruiting of a species or by selecting immature specimens.

Lastly, sharing of any abundant find is strongly encouraged.



■ **MAITAKE IN MAMAKATING:** “The Hudson Valley Business Journal” reports that the Japanese firm Yakuguni Maitake Inc. plans to build a 200,000 ft. square mushroom growing plant in the Catskill village of Mamakating to eventually employ several hundred. Since the product is described as a “culinary style mushroom”, we assume it is *Grifola frondosa* or Hen of the Woods, known as Maitake in Japan. Foraging on the property will doubtless **not** be encouraged.

■ **MÉNAGE À QUATRE:** The fungus farming, or attine, ants are in an evolutionary dance with the fungus, the *Escovopsis* mold that attacks it, and the bacterial antibiotic that they utilize to fight it. Since the fungus, domesticated only once 50 million years ago, is a clone (i.e., not permitted to fruit) it cannot evolve resistance to *Escovopsis*. That remains the task of the bacterium, which is free to engage in sex and therefore to evolve in response to *Escovopsis*. Amazing that ants have developed such a successful farming method while we humans are still struggling to raise mold free potatoes.

■ **SLUG FESTE:** We are all painfully aware that slugs, one of our mycophage competitors, eat gilled mushrooms. That they are more catholic in their tastes was revealed by a recent study in the Great Smokies, reported in “*Mycologia*”, v.94 (5). Phylomyces slugs were shown to feed upon slime molds (myxomycetes) of such genera as *Fuligo* and *Stemonitis*, not only at ground level but also in the tree canopy. Additionally, they are known to feed upon *Pleurotus*, *Russula* and *Laetiporus sulfurous*. The largest US species, the banana slug of the Northwest, feeds upon *Boletus edulis* as well. (The photo shows a very tiny slug (< 10 mm long) of unknown species feeding upon a miniscule *Lycoperdon* in Oregon.)



Photo by JHorman

■ **A KICK FROM THE “HOOF”:** The Inupiaq and Yup'ik natives of Western Alaska have a custom of mixing the ashes of *Phellinus ignarius* (one of the “hoof” polypores) with chewing tobacco, which is said to add a powerful “kick” to the resulting mixture. This widespread usage is now being studied as a serious health concern. (“*Mycologist*”, Nov. '02) This practice is also known from Western Siberia, where The Khanty people use the ashes of the polypore, *Phellinus nigricans*, for the same purpose.



Your Chance to Foray in Mexico

For fungi aficionados with a taste for the exotic, Mexican Mushroom Tours (MMT) has announced its 2003 schedule of mycology/travel/culinary adventures down south. Run by ex-Toronto fungi enthusiasts, Gundi Jeffrey and Erik Portsmouth, MMT has, since 2000, organized intimate groups of intrepid forayers to explore the mushroom treasures in their adopted country. A feature article in the New York Times Travel Section, August 2002, called their tours “mushroom heaven.”

This year there will be two different excursions: the first, August 24 – 31 in the cool, forested, central highlands of Tlaxcala, the smallest state in the nation, but known as “the mushroom capital of Mexico.” This high-altitude (7,000 ft. +) region, 60 miles east of Mexico City, was the site of the acclaimed 1998 NAMA Foray. MMT promises that the fourth annual tour here will be better than ever. (Group size limit 22.)

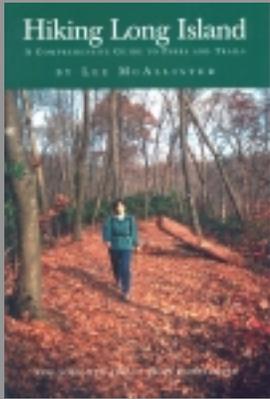
The second excursion, October 19 – 26, is a

new tour, researched and planned for more than a year, in the eastern coastal semi-tropical state of Veracruz. In locations ranging from near-sea foray sites to higher elevation coffee and citrus environments, this exciting new outing will include visits to spectacular waterfalls and important archeological sites. (Group limit 14.)

Both tours are all-inclusive (excluding travel to Mexico gathering point) and will feature comfortable, colorful lodgings, all meals (with wines at dinner) bilingual, local mycology experts as guides and technical presenters, and much more, along with the ambience of a small, international group of fungiphiles of all levels. The tour fees (per person, double occupancy) are: Tlaxcala US \$1,330.00; Veracruz US\$1,380.00.

For further details or reservations (as of January, both tours were more than half-booked,) contact: Gundi Jeffrey at gundi@mexmush.com or log onto www.mexmush.com.

BOOK REVIEW



Next to knowing the mushrooms you find, it is important to discover habitats where they might appear. Where are such places and how do you get there?

Normally a book other than one that pertains to mycology would not be viewed in this publication.

However, "Hiking Long Island" (by Lee McAllister, 2001, New York-New Jersey Trail Conference, 356 pages, \$19.95) answers these questions.

Several introductory sections deal with preparations for hiking, equipment, food and safety tips; common sense things that most of us practice on our forays. A mere 4 pages is devoted to the geology, plants and animals of Long Island. (Alas, nothing about fungus except for a photo of *Lecanum* in moss. Can't have everything!) The next topic is a short history of Long Island and of land preservation efforts. The heart of the book is the descriptions, photographs and trail maps covering Nassau and Suffolk County out to Montauk. Places where we hold forays such as Welwyn, Muttontown

Preserve, and Edgewood are represented. In addition there are many other State and County Parks, Refuges and Preserves listed that we don't have on our foray list but that could be quite productive.

Of particular note is the detailed description that the author gives of the trails: how they are marked, terrain, length, landmarks, and particular sights of interest along the way. At the end of each narrative, the author informs us if there a fee or permit is required. (Joel mentions how to get a DEC permit in his article— see below.)

Most of the maps show main trails only. Edgewood, for instance, shows only the blue blazed trail. When we have a foray there, we tend to start on this trail and then take other non-marked paths or roads. (However, if you follow the map on your own, you won't get lost.) Most importantly, driving directions (or mass transit, if available) and parking areas are given. (Much available material does not supply directions and/or parking information, so this last feature is great.)

Two new areas that appear in this book will be added to the foray schedule for this year. (You won't need the book for directions: they will be given on the foray list.) I strongly recommend this book for any club members who want to find new places to walk and explore. Let us know!

Going Native

(Continued from page 1)

Edulis we have ever come across, mostly undefiled by insect incursions. Here also we came across a good crop of the American Caesar mushroom, *Amanita hemibapha*, or one of its many variants, which we very rarely find on LI. During the autumn, *Lecanum aurantiacum* may often be found in prodigious quantities. Moreover, since this resource is underutilized, a foray or hike here can have an almost wilderness quality: it is rare to come across another soul in hours of wandering. Mountain bikers are those most frequently encountered, but are prohibited from designated hiking trails. The opening of the hunting season limits the available foraging area to all but the most stalwart foragers. And it must be admitted that the illegal use of ATV's is sometimes a problem (usually on weekends) due to a lack of enforcement.

For these reasons, we urge our members to obtain a permit (free of charge) from the DEC. Another reason is the strong possibility that we will

schedule at least one foray in this area in 2003. Permits are good for three years and can be obtained by writing to the **NYS DEC Region 1, Natural Resources, Bldg. 40, SUNY, Stony Brook, NY 11790-2346 or telephoning 444-0273**. Remember, the more usage such areas receive, the greater the reason to retain them in their undeveloped state. When applying, you will be asked the use to which the permit will be put, and the proper response is hiking, nature study or bird-watching; **mushrooming is not a recognized category**, and to mention it would only confuse matters. Trail maps will be provided along with the permit. There is also a recent book, "Hiking Long Island", by Lee McAllister, which describes many of these areas in detail. (See Peggy's review in this newsletter.)

One of the pleasures of foraging is revisiting a well-known and beloved area. The exploration of a new and unknown area is even more stimulating and exciting. Go for it!



FINDINGS AFIELD

by Joel Horman

Usually, this column deals with newly found species on LI, but new genera are much less frequently come across. Last year, about 29 new species were found, and of these an unprecedented number, six in all, were new genera. Most of these were small, easily overlooked species, wood-dwellers both inconspicuous and inedible. Two were found during the Bioblitz at Caleb Smith, when anything masquerading as a fungus was collected for the all-species taxa roundup. These were *Hydnochaete olivaceum* and *Hymenochaete tabacina*, the former belonging to the Tooth Fungi and the latter to the Crust and Parchment Fungi, though at first glance they might both be thought to be Polypores. The Audubon Guide has a photo of the first, and the Bessette Guide the second.

Resupinatus applicatus, also known as the Black Jelly Oyster, is a tiny member of the Tricholomataceae that lurks on the underside of rotten logs, so it can be discovered only by turning such logs over, which George Davis did in his never ending search for *Ascomycetes*. Like a lustrous black pearl, it is quite beguiling and illustrations don't seem to do it justice. (See the Audubon Guide.)

The Coral mushrooms were represented by *Lentaria micheneri*, a small, bitter and inedible species with a liking for decaying hardwoods, particularly Beech and Oak, or their leaves. Only Roger Phillips' "Mushrooms of North America" has a photo of this species. *Ascocoryne cylichnium* can easily be mistaken for a Jelly mushroom, which is what I initially did. A gelatinous, rubbery, irregularly lobed body, reddish purple in color and only 3/8" high, it looks like nothing else but a Jelly. However, a microscopic section revealed asci and asco-

spores, placing this genus among the *Ascomycetes*, where its huge spores 18-30 x 4-6 μ , identified it nicely. The Bessette guide contains a good photo of this species.

Our last find was again among the Toothed mushrooms, but unlike all the other species listed here, it was large, robust, and of a conventional shape, i.e., with cap and stipe. (See illustration.)



Photo by JHorman

BANKERA VIOLESCENS

The first time we came across a specimen, it was in sorry shape, fragmented and long past its prime. Luckily, we discovered many fresh specimens in late Fall, among pitch pines in the Pine Barrens. *Bankera violescens* can initially be mistaken for some of the other Toothed genera, such as *Hydnum* or *Sarcodon*. What distinguishes it are the very long teeth, to 1/4", the unzoned flesh (in contrast to *Hydnellum*, which has bi-zoned flesh), the white spore print and echinulate spores, and the dark olive-green staining reaction to KOH. Moreover, there is a pleasant, maple syrup-like smell, which is quite strong. Nevertheless, the edibility is unknown. Formerly, it was known as *B. carnosa* and is not uncommon in its habitat.

With the addition of these 29 species, our checklist total has reached 502.



NEMF, THE NORTHEAST MYCOLOGICAL FEDERATION, NOW HAS ITS OWN WEBSITE: WWW.NEMF.ORG/

The site includes lists of the affiliated clubs and e-mail addresses of their trustees and newsletter editors, checklists for past NEMF forays, information on the upcoming foray, a calendar for major club forays we know of in the coming year, pictures taken by Gerry Sheine and Richard Progovitz at the 2002 foray, and links to mushroom-related websites. It features a superb Beginners' Page with keys, authored by Gary Lincoff.

The site was started in November 2002 and is still under construction. I would like you to visit it, and e-mail me critique, corrections, additions, ideas - and mushroom-related contributions, especially favorite mushroom recipes for the Mycophagy page. This is OUR website, and it should be as informative and educational and desirable as we can possibly make it, and it will remain free of commercials.

Thank you, and have a great mushroom year. Ursula Hoffmann (Chair, NEMF 2002) e-mail: hoffmann@lehman.cuny.edu



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The most precise symbol of my annual discontent with the way spring takes its time would be an odd-looking little fungus, with a mushroom stem and a head like a scrap of old sea sponge This is the morel, a mushroom that grows in pretty good quantity... except those places in which I happen to be looking.

V. Bourjaily (1973)



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