LONG ISLAND MYCOLOGICAL CLUB

http://limyco.org

L.I. SPOREPRINT

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FINDINGS AFIELD

Agrocybe praecox or *Agrocybe dura*? That was always the question when we encountered any springtime Agrocybe. The available guide books offered no other option, and the fact that *A. praecox* was notorious for losing any vestige of a ring as it aged helped us to settle on that diagnosis and look no further. "If you hear hoof beats, don't think of zebras" the medical student is admonished. But occasionally, a zebra does show up, or at least, a horse of another color.

A. praecox, left and A. putaminum, right

And so it was with our springtime Agrocybe, when the scales fell from my eyes, and I looked carefully at what presented itself, thanks to Aaron Norarevian's perspicuity, instead of remaining anchored in a customary conclusion. "This Agrocybe has no veil", he said on a recent foray, which to me was the equivalent of "the emperor has no clothes". And indeed, looking at it in all stages of growth, from the smallest button on up, one had to agree.

But if not praecox, then what? *Agrocybe sororia* has no veil, but is very bitter

(Continued on page 4)

-FUNGI MAGAZINE- A NEW PUBLICATION FOR AMATEUR MYCOLOGY

Britt Bunyard, mycologist and former editor-in-chief of NAMA's journal *McIlvainea* and newsletter *The Mycophile,* has set the bar high for his ambitious endeavor, with which he intends "to provide North American mycologists ….a magazine of their own…the equal of what Europeans were publishing." Anyone who has read the British amateur publications *The Mycologist* or *Field Mycologist* realizes that these superb magazines are a hard act to emulate, but the first issue of *Fungi* is a promising beginning.

Firstly, Britt has assembled an impressive lineup of contributing editors, including Michael Beug, prolific author and photographer, chair of NAMA's toxicology committee, and professor at Evergreen State college; David Rose, archivist at the NY Botanical Gardens and former President of COMA; Else Vellinga, mycologist, author, and researcher at UCBerkely; and other familiar names such as Michael Wood, John Plischke III, Elinoar Shavit, Michael Wood, etc. The editorial review board includes such esteemed names as Michael Kuo, Lawrence Leonard, MD, Nicholas Money, Scott Redhead, Andrus Voitk, etc. The entire list of personnel as well as a selection of articles can be viewed at http://www.fungimag.com

A variety of subjects is addressed by the first issue's articles: collection and preparation of Morels; the origins of mycology on the world wide web; mushroom photography; mushroom nomenclature and anti-semitism; the development of a medicinal compound; phylogeny and morphology; slime mold study techniques; and fungi and sustainability. Some of this is recycled stuff, and LI Sporeprint readers will recognize David Rose's article on anti-semitism and *Auricularia auri-*

(Continued on page 3)

PRESIDENT'S MESSAGE

Dare I say it? Can I utter their name without jinxing the rest of the season? "They" are starting to pop up everywhere. Many have appeared in the yard including Russulas, Agaricus and lawn mushrooms. Two days ago, our dinner included a very fresh, succulent *Laetiporus cincinnatus*. Boletes are also beginning showing their wonderful presence. Guess who's excited!

On another note, in the last few years, I've been seeing something very disturbing. Along both sides of William Floyd Parkway, north of Brookhaven National Lab, many Oak trees are dying or are already dead. This is also occurring along Rt. 25 in Calverton where oak trees in the front of homes are also affected. This area is just across the street from the old Grumman property. On the west and south sides of the same property, large areas are dead and the understory is taking over. Dead trees are also present south from there on Manorville Road. Many more dead oaks are appearing along the south side of Route 25 in Ridge west of Ridge Road. This is not one or two Oaks that are being decimated but large swatches.

What is causing this? Drought, late frost, insects, maybe toxins in the soil, etc. all affect the trees. This causes the trees to weaken and become susceptible to Sudden Oak Death caused by the fungus *Phytophthora ramorum*, Oak Wilt, caused by *Ceratocystis fagacearum* and some other devastating diseases. (My favorite tree has always been the Oak. Its value is priceless. It would be a great loss if they all died out.)

Please don't forget our picnic on July 19th. It was a lot of fun last year and I'm sure it will be even better this time. As stated elsewhere, the club will provide a hero. Coffee and water will also be available. Please bring a dish to share if you can. Bring a friend if you like. See you then!

EDITOR'S NOTE

To encourage submission of articles by our members, we announce an article writing contest which is open to everyone, including non-members. The subject matter is limited to a personal experience with mushrooms and mushrooming, and the prize (two to be awarded) is a year's free membership in the LIMC. Topics can include: a good (or a disappointing) day's collecting, encounters with interesting or bizarre fungi (or mushroomers), childhood memories of collecting, or anything else that would make a good tale or be reflective of the culture of mushrooming. Five hundred to one thousand words is an ideal length, but that is not a strict requirement. Your editor will be the final judge, and the winners will be announced in a future issue, where the winning article will be published. Photos are a plus. Note next issues deadline below.

A reminder: DEC permits last only 3 years, and yours may be due to expire, as is mine, and if that is the case, be sure to apply for a new one. If you need an application form, let me know.

MATERIAL FOR THE AUTUMN 2008 EDITION SHOULD REACH THE EDITOR BY AUGUST 30TH

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

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TWO RECIPES FROM THE MAINE MYCOLOGICAL ASSOCIATION

Mushroom Broth

1/2 oz dried shitake mushrooms (or substitute some of your wild harvested dried mushrooms)
2 cups boiling water
1 Tbs. vegetable oil
1 onion coarsely chopped
2 large carrots, coarsely chopped
1" piece cf ginger, peeled and cut into quarters (may be omitted)
Salt
1 quart cold water

In a heat-proof bowl combine the mushrooms and boiling water. Set the bowl aside for 30 minutes. Strain the liquid and set it aside, Chop the mushrooms and set them aside. In a medium saucepan heat the oil and cook the onion, carrots and ginger with a large pinch of salt over medium-high heat for 10 minutes, stirring. Add the mushroom cooking liquid, chopped mushrooms and cold water, Bring to a boil.

Turn the heat to low and simmer the soup for 20 minutes Using a fine mesh strainer, strain the broth into a bowl pressing the solids with a wooden spoon to extract as much of their liquid as possible. Use the broth at once or cover and refrigerate until ready to use.

Porcini oil

Another way to enrich soups and risottos is to dress them with a bit of flavored oil. When making this oil, make just what you will use within a week and store it in the refrigerator. This recipe is from *Flavored Oils* by Michael Chiarello, published by Chronicle Books in 1995. Experiment with other mushrooms but remember that it is important that they be thoroughly dried as any moisture will cause problems.

1 oz. dried Porcini (*Boletus edulis* or other boletes)

Chop mushrooms in a food processor until fine. Place in a pot with the oil and heat until mixture begins to bubble. Let cook 10 to 15 seconds and remove from heat. Swirl until just warm. Strain into a bowl through 4 layers of Cheesecloth . Squeeze well to extract as much oil as possible. Pour into a sterilized jar, seal tightly and refrigerate. Makes about 3/4 cup.

.....*Michaeline Mulvey*

(Reprinted from *Mainely Mushrooms, Jan/Mar 2008)*

FUNGI MAGAZINE *(Continued from page 1)*

cula. But this is a newly expanded, rewritten article which certainly deserves wider exposure and attention. Some smaller filler items have also been circulating among mushroom newsletters, and it is a little disappointing to see them rehashed here in the *Editor's Picks column.* This is an opportunity for updates on technical research, and an emphasis on that aspect would be more in keeping with the magazines intent.

The level of the writing is generally good, competent and smooth, with none of the slipshod awkwardness one often encounters in amateur publications. But I do not see the focused gaze of *Field Mycology,* which lives up to its promise to provide "articles of interest to the field mycologist, covering all aspects of identification, conservation, recording and collection, for all levels of expertise." By way of contrast, *Fungi* offers to bring us "features ranging from toxicology to medicinal mushrooms... photography ... (to) inform and entertain everyone." Perhaps a narrower focus would be desirable.

Britt Bunyard is an experienced, self-effacing editor who does not intrude himself into his publication, which is to his credit, and contrasts favorably with the rival North American magazine, *Mushroom the Journal.* The layout is more attractive and appealing, and the general tenor more professional. But *Fungi* has a way to go before it is the equal of its British relatives, which perhaps reflect the very high level of competence displayed by the British amateur mycological community.

In summary, this is a very welcome addition to the amateur literature, a pleasure to read, and Britt Bunyard is to be congratulated for his effort. Although its first steps are somewhat uncertain, this infant promises to mature into a healthy and robust adulthood. I look forward to future issues as a subscriber.

Findings Afield *(Continued from page 1)*

(which this was not) and usually has a furrowed cap, so we rejected that. Later, I examined the specimens microscopically, and found that its spore was larger than praecox, close to that of dura, but that species has a veil that usually persists as cap edge fragments. I wish I could say that systematic logic led to the final conclusion, but instead it was serendipity.

Doing a web search for images of Agrocybe, I happened across a photo of what was described as "an *Agrocybe praecox* lookalike without a veil....locally common in woodchips" on a California website http://www.mykoweb.com/CAF/species/Agrocybe_praecox.html This picture was perfect, clearly showing the very regularly staggered gill arrangement, with five lamellulae in three layers between every set of full gills that reached the stipe. However, although a description is promised in the future, none is as yet available on this site, nor, unfortunately, elsewhere on the web. I did manage to scrounge up a reference to what promised to be a fuller technical description in a 1998 issue of "Mycologist", a British journal, in the "Profiles of Fungi" series, but this was not available on the web through any of my usual sources such as Jstor or BioOne.

Again, Aaron saved the day by obtaining not only Pegler's article from the *Mycologist,* but also an even fuller description in the monograph on *Agrocybe* by Maruke Nauta, (published in 1988 as part of the *Flora agaricina Neerlandica* series) by a visit to the NY Botanical Garden's LuEsther T. Mertz Library. With these materials as a reference, we can now be sure of our identification of this mushroom.

Originally described from France by René Maire in 1913 (*Annls mycol. 11(4): 350)*as *Naucoria putaminum,* growing on *Prunus* (plum and other fruit tree pits) but since then , according to both Pegler and Nauta, found on straw, buried wood, and wood chips in waste places and roadside verges. In 1936 Singer constructed a new combination by moving it to *Agrocybe.* It is considered rare in Western Europe with few records in the British Isles. Rare enough, in fact, so that it is not mentioned in Roy Watlings 1982 treatise on the *Bolbitiaceae*, and is sometimes erroneously thought by some to be an American species. The first British records are from 1986 in the Royal Botanical Gardens at Kew.

Records accessible on the web indicate that it has been found in Rumania, where it is considered rare as well. There is always the possibility that it has been overlooked as well, and mistaken for *Agrocybe praecox.* Although the Mycoweb (California) website claims it is "locally common in woodchips", this species goes unmentioned in Arora. There is also an Alberta, Canada record, where a survey in July, 2002 found it on soil in an open pine forest, apparently a first record for Alberta. Another possibility is an expansion of its historical range.

Agrocybe putaminum is a sturdy, medium sized mushroom, up to 4 inches wide, which never shows any sign of a veil or annulus at any stage.

Agrocybe putaminum, Wading River, May, 2008

When it ages in dry weather, the cap can become areolate (cracked and fissured) which can lead to its mistakenly being identified as *A. dura.* Cap yellow-brown to dark yellow, dry, smooth, conical truncate to hemispherical, becoming plano-convex. Stipe cylindrical to clavate, subbulbous when young, to 5" long, striate/fibrillose. Gills grayish yellow, becoming brown, with several layers of lamellulae often very regularly arranged as described above. Odor and taste clearly farinaceous, with slightly bitter aftertaste. In general, it tends to be slightly smaller than A.praecox, with browner tones on the stipe.

Spore print dark brown, the spores yellow-brown microscopically, with a moderately thick wall and apical germ pore, measuring 10-14 X 5.5-8µm. Basidia ~30 X 9 µm, occasionally with sterigmata to 8 µm long. Pleurocystidea clavate, about 40 X 15-20 µm, many with granular contents. Cheilocystidea more various, lageniform (gourd shaped) to narrowly utriform (bladder shaped), some with granular content. Caulocystidea clustered, mostly lageniform, about 40 X 8 µm. Pileocystidea similar.

Agrocybe putaminum (Maire) Singer will now be added to our Long Island species checklist. In addition to the Bethpage SP specimens, we have also found it in Wading River, and in Wave Hill Gardens, in the northwest Bronx. There is no reason to believe it is not more widely spread in the Northeast.

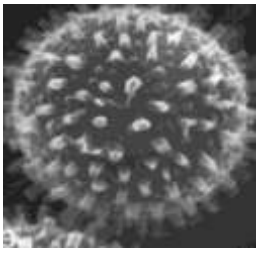
Gleanings

■ BANDICOOTS, POTOROOS & TRUFFLES: No, this isn't a recipe., but a report of how clever Australian ecologists have come up with a method to track these elusive nocturnal animals. Instead of using cage traps baited with peanut butter, they have devised automatic infra red cameras baited with black truffle scented cooking oil, which attracts a great variety of creatures whose natural food source is truffles, which the outback is apparently replete with. Although these oils are derided by chefs as being a poor substitute for the real thing, it appears that these creatures have no problem with it. I'd like to know what brand they're using. (*The N. American Truffler, Vol.27, Issue 1, April/May 2008.)*

■ OYSTERS TO THE RESCUE: Paul Stamets, of Fungi Perfecti, has been called in to apply his mushroom bioremediation techniques to toxic dioxin hot spots in Fort Bragg, CA, where he will grow both Turkey Tails and Oyster mushrooms on a test plot of 10 cubic yards of dioxin laden soil. Preliminary studies have shown that these species can break down and reduce these compounds by 50%. Stamets is the author of "*Mycelium Running: How Mushrooms Can Help Save The World." (NY Times, April 27, 2008)*

■ SILVER MUSHROOMS: It is well known that mushrooms can accumulate heavy metals, which led to the caution to avoid roadside mushrooms during the era of leaded gasoline. Now a more noble metal has been shown for the first time to have an affinity for some species of Amanita. Czech researchers showed that *A. strobiliformis* and *A. solitaria* hyperaccumulated silver. The Ag content varied from 200-7000 mg per kg, with the highest content of 1253 in one sample. Silver concentrations in the fruit bodies were 800-2500 times higher than the surrounding soil.

■ LUMPING CREPIDOTUS: The orange-gilled wood-inhabiting mushroom *Crepidotus crocophyllus,* which we found on a recent foray, occurs throughout Mexico and Costa Rica, according to a recent survey. Intensive macroscopic and microscopic morphological scrutiny and measurement, including scanning electron microscopy resulted in synonomyzing *C.appalchianensis, C. aureofolius, C. distortus, C.subaureifolius,* and *C.subnidulans,* which are all interpreted to be *C. crocophyllus.* It is refreshing that this conclusion was arrived at without DNA analysis. This lumping may come as a relief to amateur identifiers, who have quite enough on their plate as it is. (*Mycologia, 100(2), 2008, pp.335-346.)*



SEM of spore

■ RAISING MILKCAPS: The widely popular Saffron Milk Cap *(Lactarius deliciousus)* is being commercially grown and harvested in New Zealand pine forests, the first time that ectomycorrhizal mushrooms have been grown on a commercial scale. The first harvest yielded several hundred kilograms, with a market value of $50 per kg, and an expected harvest next year of tons. Since the seasons in New Zealand are reversed, the company (First Light Mushrooms) hopes to export its product to the Northern Hemisphere in winter, when it is unavailable there. *(New Zealand Herald, May 26, 2008)*

(compiled by editor from cited sources)

Fungi and Tobacco - a powerful mixture

The native American Indians from Alaska and Western Canada regularly mix the ashes of Phellinus igniarius with finely chopped tobacco to create a curious mixture that gave a powerful kick if used as chewing tobacco. Phellinus igniarius was traded regularly between different tribes and ornate Fungus Ash Boxes were carved from bone, wood and ivory to carry the concoction. This practice is still very popular in Alaska and the Yukon and between 50-80% of the populations in some areas use it. The problem is that it is extremely bad for the user. The fungus ash contains high concentrations of magnesium, potassium, calcium and phosphorus and elevated levels of other heavy metals. These metals raise the pH which in turn increases the amount of nicotine absorbed by the body (resulting in the powerful kick). Nicotine poisoning can result. In these areas, the cases of cancer, hypertension and strokes are very high and health campaigns are now taking place to try to get people to stop this practice.

Source: Website of the N. Ireland Fungus Group http://www.nifg.org.uk/fascinating_facts.htm

THE 'SHROOMS OF JUNE/JULY

A checklist of the fungi appearing in June and early July. This list is not exhaustive, and surprises can occur, with both Spring and Fall species making an appearance. Add your own findings to this list.

Agaricus silvicola
Agaricus arvensis
Agaricus silvaticus
Agrocybe pediades
Agrocybe praecox
Amanita brunnescens v. alba
Amanita ceciliae
Amanita crenulata
Amanita flavoconia
Amanita frostiana
Amanita fulva
Amanita muscaria
Amanita rubescens
Amanita vaginata
Amanita volvata
Amanita spreta
Amanita vaginata
Bisporella citrina
Boletus/Xanthconium affinis/ affine
Boletus bicolor
Boletus pulverulentus
Boletus subglabripes
Boletus subtomentosus
Bondarzewia berkeleyii
Cantharellus cibarius
Cantharellus cinnabarinus
Ceratiomyxa fruticulosa
Chalciporus pseudorubinellus
Chlorociboria aeruginescens
Clavaria cinerea
Clavicorona pyxidata
Collybia alkalivirens
Collybia acervata
Collybia dryophila
Collybia spongiosa
Collybia subnuda
Coltricia cinnamomea
Conocybe lactea
Conocybe tenera
Coprinus atramentarius
Coprinus plicatilis
Craterellus fallax
Crepidotus applanatus
Crepidotus mollis
Crucibulum leave
Entoloma verna
Favolus alveolaris
Flammulina velutipes
Galerina tibiicystis
Ganoderma applanatum
Ganoderma lucidum
Gymnopilus sapineus
Gyroporus castaneus
Helvella macropus
Hohenbuehelia petaloides
Hygrophorus pratensis
Hypholoma fasciculare
Inocybe fastigiata
Inocybe lacera
Irpex lacteus
Laccaria laccata
Lactarius camphoratus
Lactarius gerardii
Laetiporus cincinnatus
Laetiporus sulfureus
Leccinum albellum
Leccinum aurantiacum
Lentaria micheneri
Lentinus torulosus
Lycogola epidendron
Lyophyllum descastes
Lyophyllum semitale
Marasmius nigrodiscus
Marasmius oreades
Marasmius rotula
Marasmius scorodonius
Megacollybia plattyphylla
Melanoleuca melaluca
Meripilus giganteus
Mycena galericulata
Mycena haematopus
Paneolus campanulatus
Paneolus foenisecii
Phaeolus schweinitzii
Pholiota aurivella
Pholiota veris
Polyporus arcularis
Polyporus elegans
Polyporus squamosis
Phyllotopsis nidulans
Pisolithus tinctorius
Pleurotus ostreatus
Pleuteus longistriatus
Pluteus cervinus
Psathyrella condolleana
Psathyrella velutina
Psilocybe montanum
Rickenella fibula
Russula crustosa
Russula heterophylla
Russula laurocerasi
Russula mariae
Russula perlactea
Russula primaverna
Russula stricta
Russula vinacea
Russula virescens
Schizophyllum commune
Spongipellis pachydon
Steccherinum ochraceum
Steccherinum pulcherimum
Stemonitis splendens
Stropharia rugosoannulata
Suillus americanus
Suillus granulatus
Suillus pictus
Trametes hirsute
Tremella mesenterica
Tremelledendron pallidum
Trichaptum biformis
Tubifera ferruginosa
Tylopilus felleus
Tyromyces chioneus
Ustulina deusta
Xeromphalina campenella

WELCOME, NEW MEMBERS

STEVEN HUYSMAN

JOAN KIELY & JOLYON JESTY

THOMAS & RUTH LAWLOR

RENE MENNES

JOHN POTENTE

FORAY HIGHLIGHTS SUMMARY

MAY 3, WELWYN: Eager Morel hunters found a total of 2 dozen large Black Morels, with Debbie Persampire the big winner with 9; she also discovered a clump of perfect *Pleurotus ostreatus* (see photo).

We know why she's smiling!

MAY 17, PLANTING FIELDS & BETHPAGE SP: On Ken Gobright's heads-up that the Oysters were fruiting early, we added Bethpage to this day's foray, for a total of 20 taxons collected, including a good amount of *Pleurotus populinus*. Here we also collected an *Agrocybe* species which we had been calling A. praecox, but which closer scrutiny revealed it to be *A. putaminum,* a rare European species. (See Findings Afield, page 1).

MAY 24, BETHPAGE SP: We again collected Spring Oysters and had an opportunity to compare both *A. praecox* and *A. putaminum* (see photo, page 1).

Polyporus craterellus

JUNE 7, MUTTONTOWN: A total of 24 species, not bad for this time of year, including 3 new to the list: *Dascyscyphus virgineaus, (*Hairy Fairy Cup, spotted by the sharp young eyes of our newest member, Steve Huysman); *Polyporus craterellus;* and *Psilocybe phyllogena.*

Psilocybe phyllogena

JUNE 14, CHRISTIE: Only 16 species, perhaps because of a short dry spell, but nevertheless producing several new species, both identified by Aaron Norarevian: *Phellinus viticola,* a brownish encrustation, and *Crepidotus crocophylla*, an orange gilled wood dweller. And one unidentified *Discomycete.*

JUNE 21, MASSAPEQUA PARK: We returned here after three years, failed to find *Lyophyllum descastes*, the target species, but may have come up with a relative, a possible *Tephrocybe* species, which will require further work-up, as will a strange, smooth-capped *Inocybe*. There were four species of *Collybia: acervata, butyracea, dysodes*, and *subnuda.*

Dasyscyphus virgineus

Unidentified discomycete

CALEB SMITH BIOBLITZ SEPT. 12

This year's date for the BioBlitz has been set for Sept12-13, and the LIMC will participate by inventorying the macrofungi present. We will assemble at the BOCES offices at 10 AM on Friday, Sept. 12, and everyone is invited to assist. Directions are as follows:

Access Sagtikos Pkway from any convenient highway and exit at Jericho Tpke. Head east past the main park entrance, and take the first left (Meadow Rd). Make another left at the BOCES sign and park near the buildings.

PICNIC REMINDER

The LIMC Annual Picnic will be held following the July 19th Foray at Bethpage State Park. Bring a side dish to share. The club will provide a hero lunch and beverages. Last year's picnic was a great success!

IN THIS ISSUE

And I'd like to look a little more/
At such a curious earth! Emily Dickinson

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