LONG ISLAND MYCOLOGICAL CLUB **http://limyco.org**

L.I. SPOREPRINT

HAPPY HOLIDAYS!

VOLUME 16, NUMBER 4, WINTER, 2008

FINDINGS AFIELD

There are several Tricholomas which develop stains on their gills, so while distractedly collecting in Edgewood Oak Brush Plains Preserve on Oct. 30, 2008, I assumed that this specimen was a species that had previously been encountered, but changed my mind later, when attempting to identify it more precisely. I learned that this species, *Tricholoma fulvimarginatum,* unlike most of the Tricholomas, is associated not with Pine, but with Poplar, three species of which (*Populus deltoides, P. grandidentata*, and *P. tremuloides*-Cottonwood, Big-toothed aspen & Quaking aspen respectively) occur here, according to botanist Andrew Greller. *T. fulvimarginatum* strongly favors Cottonwood, according to the authors of this species, Clark L Ovrebo and Roy Halling, who described it in *Brittonia , 38 (3), 1986, pp.260-3.*

Tricholoma fulvimarginatum

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Charles Horton Peck- Father of Modern American Mycology

by Joel Horman

Amanita abrupta Peck, *Agaricus (Psalliota) placomyces* Peck, *Boletus affinis* Peck, *Boletus auriporus* Peck , *Boletus bicolor* Peck, *Cortinarius luteus* Peck, *Hebeloma sarcophyllum* Peck, *Inocybe intricata* Peck, *Russula aeruginascens* Peck, *Tricholoma equestre v. albipes* Peck. These are but a few of the more than 2,700 new species and varieties of fungi discovered and described by Charles Horton Peck (1833-1917) the official NYS Botanist at the State Museum in Albany from 1868 until 1913. Despite his monumental contribution to mycology, he was not academically credentialed in the field, but was trained in botany, with a particular interest in the bryophytes, and an autodidact in mycology. Initially, after publishing his first paper in 1865, "The Catalogue of Mosses Presented to the State of NY", one of his friends, Elliot C. Howe, MD, a fellow bryophyte lover, urged him to work on a fungus list for NY state, offering his own collection of 267 species for a starter. Peck acquiesced, estimating that it would take him four or five years to complete; after 45 years, the task was still uncompleted. To a much lesser extent, it remains so today.

Charles Peck, 1904, a hotel in Pt. Jefferson, LI. Photo by G. Atkinson (from NYS Museum website)

The story goes that when Peck was first employed as a schoolteacher one of his duties was to tend the fire; while feeding wood into the stove he was constantly attracted by lichens and mosses growing on the bark. This led him to communicate with fern scholars. Similarly, when he began on fungi, he studied the works of Persoon and Fries, initially sending samples he could not identify to M.C. Cooke, the royal botanist at Kew in London, and to Moses A. Curtis, a church official in North Carolina who studied fungi with Miles Joseph Berkeley in England. Four hundred specimens were sent to Cooke between 1870 -1874, many of which were described in

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MEMBERSHIP RENEWAL FORM INSIDE

PRESIDENT'S MESSAGE

The mushroom season is over, and it was quite a strange one; I would give it a mixed review. Some of our forays were cancelled again due to few mushrooms around because of lack of rain at the right time, too much rain, too hot etc. Oysters were abundant for those who came to the early foray in Bethpage. Honeys (*Armillaria mellea*) were found in their very early stage and then no more. Plenty of boletus (including boletes and suillus) were found early on. Honeys (*A. ostoyae*) were everywhere and Shaggy manes (*Coprinus comatus*) were found by the hundreds. Gypsys *(Rozites caperata)* were abundant earlier than expected, as were Tricholomas and blewits. Perhaps because of this early fruiting, the season ended prematurely. We are hopeful for next year.

Our annual luncheon was quite nice even though attendance was on the low side. Next year, we'll may hold it earlier in the season so perhaps more members will attend. As always, The Parkside staff was quite accommodating and we'll probably return next year; the wild mushroom soup, for which we supply the boletes, is always a hit. (Thanks to Debbie for her contribution to the raffle.)

All our LIMC board members and foray leaders deserve a BIG thank you. I appreciate everyone of you. All the current officers were reelected at the annual meeting. We welcome Roger Eklund as our newest board member. (Our best wishes to Lyle Peters….we miss you.)

As you know, I am again the club's president for the next three years. When my term expires, I think it will be time for someone else to take over. (One club in our northeast installs a new president every two years, so as to share the responsibility. This is fair to everyone.)

To all our members that join us at forays and to those who cannot, I wish all a happy and healthy 2009.

EDITOR'S NOTE

Snowflakes of the season's first winter storm fall silently, putting an end to any thoughts of commando forays for seasonal eruptives such as Oysters or Flammulina. All but the most hardy will barricade themselves in fossil fuel derived warmth until Spring, with visions of candy caps dancing in their heads.

This period of enforced physical inactivity is a good time to indulge in increased mental activity, which I am told also can burn a few calories. Return to those genera which caused some confusion in the field and review them in the guidebooks. You can construct a table for yourself to categorize diagnostic features, and if it proves useful, share it with others. Websites featuring accurate color images are proliferating on the web, although Google searches are not fully trustworthy. We hope in the future to provide trustworthy links on our website. Meanwhile, please remember that if you receive the LI Sporeprint in a hard copy, our website provides full color pdf's of all the photos you see herein.

All members with an email address will be informed of the new password for the site after renewal.

MATERIAL FOR THE SPRING, 2009 EDITION SHOULD REACH THE EDITOR BY MARCH 1ST

(Submissions should preferably be typed or submitted in any text format by e-mail)

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ARE YOU A MYCETOMANIAC?

By Joel Horman

Mushroomer. Field mycologist. Mycophile. All these terms seem too insipid to describe those of us who concentrate on this topic with an intensity, single mindedness and persistence bordering on obsession. The philosopher Spinoza was called the God-intoxicated man, and though we are far from divine, our enthusiasm can border on the sort of springtime drunkenness celebrated in Mahler's *Song of the Earth.*

Drawing upon the term "bibliomania", defined as an obsessive-compulsive disorder involving the collecting or hoarding of books to the point where social relations or health are damaged, the term "mycetomania" would not be out of place. But what are the signs and symptoms of this disorder? We don't as yet have a dichotomous key to identify it, but the following series of True/False questions may aid in self-diagnosis:

1- Have you ever endangered yourself or others by attempting to identify roadside mushrooms while driving in excess of 50 mph? If you have in fact been successful in such identifications, kindly contact me when Morel season opens.

2- Do you own a cat burglar's outfit which you wear when conducting midnight raids upon your neighbor's yard?

3- Do you walk with a permanent stoop, scanning the ground even in mid-winter, despite several new year's resolutions?

4- Does your collection of dried boletes go back further than a five years? A decade?

5- Do you suffer withdrawal symptoms after a week without eating mushrooms? A day?

6- State troopers regularly stop your vehicle because the trunk is so loaded with mushroom books that you are mistaken for a drug smuggler?

7- Cannot stop yourself from discussing the latest phylogenetic findings, even in inappropriate settings, such as funerals?

8- Are you considering obtaining a second mortgage to finance the purchase of an electron microscope?

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Our specimen was about 6 cm. wide, with adherent cap debris attesting to its viscid state when fresh; it is said to dry quickly with age. Cap color reddish-brown, becoming yellowish-brown toward the edge; fibrillose. Odor and taste strongly farinaceous. Gills close, whitish, edges uniformly brown, even when young, slightly eroded. Stipe 4 cm. long, 12 mm thick, more or less equal, strongly fibrillose, brownish, abruptly bent at the base.

While other reddish-brown Tricholomas occur in our pine barrens, none of the other viscid species have the uniformly pigmented gill edges which are present in all stages. The original specimens were described by Ovrebo and Halling from the Connecticut River Valley in Western Massachusetts, in the sandy soil of a pine barrens habitat. They located additional specimens in northern NY state near Watertown. The web has few reports of this species in collections, except for one instance in Quebec; it is not found in the NEMF database, the COMA Forays checklist, or the NJMA composite checklist. It seems that this species has a limited distribution and/or is uncommon.

LETTERS TO THE EDITOR: An early Phallus rubicundus

As for *Phallus rubicundus*. This may be an original Long Island oddity. It was collected by Roy Latham at Orient, back in the early 1900's, the exact date, however, is not attached to the specimen. It was determined by C. G. Lloyd, and Latham published the report in the Flora of Southold Town, a copy of which still exists at the Southold Free Library.

There were 5 supplements to the "Flora of the Town of Southold, Long Island". Latham's 3rd supplement notes that "*Ithyphallus rubicundus* was collected on July 25, 1920 in Moore's Woods, Greenport." The description then goes on to detail Lloyd's remarkable comments concerning this species.

It represents the FIRST record of this species outside of Florida!

Thanks for your interest,

Best Wishes,

Lance Biechele, Princess Anne, Maryland

THE GENUS COPRINUS: CURRENT STATUS

***This chart nicely illustrates the reorganization of the genus Coprinus, and the division into several new genera based on morphological and phylogenetic evidence. Coprinus in the broad sense is now divided between two families, the Agaricaceae, which harbors Coprinus comatus and a few similar species, and the Psathyrellaceae, which contains the other gilled species in Parasola (e.g. plicatilis), Copriniopsis (e.g., lagopus) and Coprinellus (e.g., micaceus). The secotoid species are desert adaptations which do not occur on Long Island, and can safely be ignored. Like C. comatus they are more closely related to species of Agaricus. (* From "Keirle, M. R., D. E. Hemmes & D. E. Desjardin (2004). Agaricales of the Hawaiian Islands. 8. Agaricaceae: Coprinus and Podaxis; Psathyrellaceae: Coprinopsis, Coprinellus, and Parasola. Fungal Diversity 15: 33-124.)**

Table 2. Morphological features used to distinguish the newly redefined coprinoid genera supported by molecular sequence data (Redhead *et al.*, 2001; Moncalvo *et al.*, 2002).

Genus	***Coprinus***	***Montagnea* and *Xerocoprinus***	***Podaxis***	***Coprinopsis***	***Parasola***	***Coprinellus***
representative species	*Comatus* *Sterquilinus* *Xerophilus*	*Arenaria*	*pistillaris*	*candidolanatus* *cinerea* *cothurnata* *extinctoria* *friesii* *lagopus* *radiata* *sclerotiorum* *sejuncta* *stercorea* *urticicola* *villosa*	**auricoma** *leiocephala* *megasperma* *nudiceps* *plicatilis*	*curtus* *disseminatus* *micaceus* *pellucidus* *plagioporus* *radians* *truncorum* *verrucispermus*
Family	Agaricaceae	Agaricaceae	Agaricaceae	Psathyrellaceae	Psathyrellaceae	Psathyrellaceae
agaricoid–secotioid	agaricoid	Secotioid	secotioid	agaricoid	agaricoid	agaricoid
immature lamellae pinkish	yes	Yes	yes	no	no	no
pileipellis	inflated cells	Inflated cells	inflated cells	cutis	smooth hymeniform palisade	hymeniderm or cystoderm
pileocystidia	absent	Absent	absent	absent	absent or with non-secretory setae	often round-tipped secretory pileocystidia
veil tissue	floccose scales, cottony annulus and pseudovolva	Floccose scales, cottony annulus and pseudovolva	floccose scales, cottony annulus and pseudovolva	usually floccose leaving shaggy scales	completely absent	usually of globular cells forming granules
deliquescence	always	Always	always	always	fully, partially, or non-deliquescent	fully, partially, or non-deliquescent
central stipe strand	present	Present	present	absent	absent	absent
basidia	consistently dimorphic	Consistently dimorphic	consistently dimorphic	dimorphic	irregularly dimorphic to trimorphic	dimorphic, trimorphic or tetramorphic
pleurocystidia	always absent	Always absent	always absent	usually present	always present	present or absent
ozonium	absent	Absent	absent	absent	absent	present or absent

Traditionally recognized coprinoid features: inaequihymeniiferous lamellar development, brachybasidia present, spores darkly pigmented, saprotrophic, flesh fragile, lamellae parallel to sub-parallel, deliquescent to sub-deliquescent, pileus often with plicate margin

Gleanings

■ PLATTYPHYLA NO MORE: Who woulda thunk it? Our own humble *Megacollybia platyphylla* given international attention by a team of mycological superstars, and revealed as an imposter. After undergoing more name changes than a felon in the witness protection program (Collybia to Tricholomopsis to Megacollybia) our east coast version has been declared a separate species than the old world type and christened *Megacollybia rodmani*. The new world is said to support at least five species: *M.fallax*, (Arizona to BC, Canada) *M.texensis*, (Texas) *M.fusca*, (S.America) *M.subfurfuracea*, (Arkansas & Tenn.) and *M. rodmani* (eastern NA & Central America). To further complicate this picture *M. rodmani* is divided into two forms based on the presence of cheilocystidea. (*Megacollybia (Agaricales), Karen Hughes et al, Rep. Tottori Mycol. Inst. 45: 1-57)* To obtain a pdf of the entire report, access: http://www.thicketofdiversity.org/ and click on the link under the photo of *Megacollybia texensis*..

■ FREEZER FUNGI: If you freeze your fungal finds, a new bit of research may be a helpful guide to storage time. A recent article (Food Chemistry, Vol. 113, #4, online Aug,'08) by Grażyna Jaworska, et al, investigated the sensory qualities of Boletus edulis frozen for various lengths of time varying from 4 to 12 months, and concluded that deterioration was so great after 4 months, that longer time periods left them unpalatable. If blanched and pre-treated with citric or lactic acid, etc., color and taste qualities were retained for up to 12 months. A previous study by the same principal author on the optimal period for freezing *Agaricus bisporus* reached a similar conclusion, and also indicated that there was a significant loss of vitamins B2 and C.

■ MYCODIESEL? *Gliocladium roseum*, an endophyte that infects the Patagonion ulmo tree, has been found to produce hydrocarbons essentially identical to diesel fuels. Gary Strobel of Montana State University, the lead scientist, who is known for his discovery of taxol in Pacific yew trees, said that mycodiesel could be used as is in any modern diesel engine. The fungus consumes cellulose and therefore can be raised on any plant waste, in contrast to ethanol, which requires food crops such as corn. The mycodiesel is produced as a gas, apparently to combat other fungi and bacteria. To access Strobel's website at Montana S.U., read his original paper in the November issue of Microbiology, or hear a pod-cast, access: http://plantsciences.montana.edu/facultyorstaff/faculty/strobel/strobel.html

Gliocladium roseum

■ OF YEAST AND MEN: An ageing mechanism involving a cell's response to DNA damage, thought to be confined to yeast, has now been demonstrated to be present in mammalian cells (mice) as well. Specialized genes, called sirtuins, have a dual function of repairing DNA damage and silencing unwanted genes, but become overwhelmed by the accumulated damage in aging cells, neglecting the silencing function, and these unregulated genes are implicated in aging. By administering extra copies of sirtuin genes to mice genetically altered to model lymphoma, researchers lengthened their life span by 24 to 46 percent. Wine drinkers note: the same result was obtained by feeding them resveretrol, the sirtuin activator found in red wine. *(Cell, Nov. 28, 2008 Volume 135, Issue 6 "SIRT1 Redistribution on Chromatin Promotes Genome Stability but Alters Gene Expression during Aging",Philipp Oberdoerffer et al)*

■ **EAT YOUR MUSHROOMS, THEY'RE GOOD FOR YOU:** Researchers in Warsaw, Poland have for the first time isolated the anti-tumor compound Ergesterol Peroxide from a group of commonly collected edible mushrooms, including *Hericium erinaceus (Bearded Tooth), Boletus edulis, Laetiporus sulfureus, Morchella esculenta,* etc., and their levels precisely quantified. *B. edulis* had the highest levels at 29 mg per 100 g. The authors conclude that EP is a common compound in higher fungi and that suggest that in view of its medicinal properties the level in extensively used edible mushrooms should be determined. *(Food Chemistry 113 (2009) 351–355, Isolation and quantitative determination of ergesterol peroxide…, W. Kryzczkowski et al)*

(Compiled by editor from cited sources.)

CHPeck

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"Grevillea", Cooke's new journal; Peck, in his early work, ascribed many species to "Cooke and Peck". The first new species published by him was *Septoria viridetingens,* a type of leaf spot Ascomycete, indicative of his far ranging interests, although he focused upon the agarics. After 1875 he did not find it necessary to consult others for identification aid and rarely co-authored a species with someone else. He became the final authority on American fungi but his interest in botany continued, and new species of flowering plants were also included in the Annual Reports of the NYS Botanist. He spent considerable time in his later years collecting the Hawthornes for the state herbarium.

During most of his years as the State Botanist he worked "single-handed and alone" without even an assistant, by himself carrying on a vast correspondence, collecting, describing, and caring for not only his own specimens but also those contributed by his many correspondents (one of which was Roy Latham-see Letters to the editor). Each of his annual reports scrupulously identifies his correspondents and their contributions. Many were unknown amateurs while others such as C. McIlvaine, C.H. Kaufmann, W.A. Murrill, and R.M. Underwood were of greater renown. During July, August and September he traveled to different parts of NY State, by railroad, stage and private wagon, and walked great distances, carrying with him a portable field microscope. Larger specimens were dried in sunlight or by fire while in the field; smaller ones were remoistened and flattened between herbarium sheets, much like botanical specimens.

His favorite site apparently was North Elba, Essex County, in the Adirondacks, where subsequent collectors included George Atkinson and C.H. Kauffman. Long Island was also often visited, and many of his specimens are labeled Port Jefferson, Orient Pt., etc. On several occasions he was accompanied by George Atkinson, who in 1900 published a popular book, "Studies of American Fungi", featuring his own photographs.

Despite never having written a definitive book and being an ardent anti-evolutionist, he was a major influence on mycology during his lifetime, and his annual report comprises several thousand pages of descriptive mycology. Included in these reports are his drawings and paintings (see above), which still retain their crisp immediacy. His collections are still consulted by scholars and remain an important reference. For example, Prof. Henry Beker, whom we are aiding locally in his worldwide study of Hebeloma has been sequencing Peck's type specimens of this genus.

Atkinson wrote a touching tribute to Peck concluding with the words, "....mycological science owe(s) Dr. Peck a fund of gratitude for what he has accomplished in spite of the many difficulties and discouragements under which he labeled." These words still hold true today.

Looking for a fungal Winter getaway? One option is the Sonoma County Mycological Association Camp, a three-day weekend (Jan. 17-19) of forays, lectures and workshops at the CYO Mcgucken Camp near Occidental, an hour north of San Francisco, set in a mixed Oak, Redwood and Fir forest. Gary Lincoff is the featured speaker. Since this is California, the cuisine is a high point, featuring dishes by Mycochef Patrick Hamilton: Catalonian frittata of mushrooms, anyone?

Price, including lodging, all meals, and workshops, is $300. Lodging is in heated cabins, with 6 bunks per cabin, and shared restrooms. If one opts for offsite lodging, the price is reduced to $245.

Further information and online registration is available at: http://somamushrooms.org/camp/camp.html

FORAY HIGHLIGHTS

OCT 4, WEST HILLS SOUTH: 43 Species, including 6 Amanita, 4 Lactarius including *L. peckii*, 3 Russulas, and 3 Tricholomas, including *T. flavobrunneum*. One specimen of *Lyophyllum semitale* turned up, and edibles included *Hydnum repandum, Clitocybe odora,* and *Grifola frondosa.*

Lyophyllum semitale showing characteristic gill blackening.

OCT 11, MUTTONTOWN EQUESTRIAN: 30 species, including 3 *Clitocybe (clavipes, subconnexa,* and *robusta,* the latter new to our list). The edibles included *Armillaria gallica* and *ostoyae,* Brick caps, and Blewits. From there, we continued to an afternoon exploratory foray at the nearby...

Clitocybe robusta

CUSHMAN PRESERVE, where we led a walk for the North Shore Land Alliance. While many of the same species were found, additional species included several *Cortinarius* including *iodes, obliquus*, and one unidentified sp. *Mycena pura, M. haematopus* and *Tubaria furfuracea* rounded out the day.

OCT 18, BLYDENBURGH C.P.: On the slow side, with only 23 sp., nothing unexpected, but one species of *Scleroderma* which resembled *S. bovista,* but which turned out to have an unreticulated spore, identifying it as *S.* aereolatum, new to the LI list.

Scleroderma aereolatum

OCT 18, EDGEWOOD PRESERVE: We did better in the afternoon here, where an additional 34 species were collected, including a good number of edibles, including Blewits, *Chroogomphus, Laccaria, Leccinum* and 3 species of *Suillus*, including *grevelei*, which is associated here with introduced European Larch. The interesting coconut smelling *Lactarius hibbardae* was also found.

Coprinus comatus

NOV 1, EDGEWOOD PRESERVE: We returned here and did even better this time, with 36 species. The find of the day was an eruption of hundreds of Shaggy Manes, discovered by Paul Tomko, one of our new members. These were perfection itself, and delicious. Many other edibles were collected, including *Tricholoma equestre & neveipes, Suillus, Leccinum, Laccaria, Hygrophorus hypothejus & ponderatus,* Blewits and Bricktops. One new species, *Tricholoma fulvimarginatum,* identifiable by its brownish gill edges, and associated with poplar (see page 1).

MYCETOMANIA *(Continued from page 3)*

9- Have you been forced to call in a construction firm to strengthen the floors of the room where your mushroom reference library is located?

10- If single, have you placed personal ads only in mushroom newsletters and mycological journals?

11- Have you turned down free tickets to a major sporting event or hit show because it interfered with a foray?

12- Do you stay awake nights thinking of a mushroom you failed to identify?

13- Have you shed tears when someone inadvertently trod upon a perfect specimen?

14- Do you subscribe to foreign mushroom journals although you speak only English?

15- Find that sunny weather causes depression?

If two or more of these questions were answered in the affirmative, you have incipient mycetomania, and may possibly be cured by going cold turkey for an extended period. If your score was two to five affirmative answers, complete withdrawal and residence in a subarctic climate may be a treatment option. More than five reflects an intractable and longstanding monomania which requires professional intervention, hypnotism or exorcism. On the other hand, you can relax and enjoy it.....or just enjoy it.

IN THIS ISSUE

If you concentrate your attention on some apparently insignificant portion of the world, you will find, deep within it, nothing less than the world itself.

Steven Millhauser, NY Times Book Review, Oct. 5, 2008

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