LONG ISLAND MYCOLOGICAL CLUB

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L.I. SPOREPRINT

VOLUME 11, NUMBER 2, SUMMER 2003

FINDINGS AFIELD

by Joel Horman

Every month from June through November, Amanitas never fail us, arising in varied habitats and always a visual pleasure, their elegant forms bedecked with feminine veils and skirts. Pine forests are their preferred home, and that is where I came across this particular specimen, in the pine/oak woods of the Rocky Pt. Natural Resources Management Area, part of our 100,000 acre protected Pine Barrens Preserve. A large, robust but neutrally colored mushroom, growing conspicuously in a good-sized group at the edge of a field where bluebirds nested. Arrayed in full sunlight, their reflected sheen made for an impressive sight. I knew immediately that I had never encountered them before.

The cap was as much as 5" across, grayish-brown with cream colored patches. The stipe was substantial, up to 6" long and more than an inch thick, with a large bulb, cleft in several places like *A. brunnescens,* and discolored with orangish spots. It was handsomely decorated with a large, flaring, pendant superior ring, striate above and floccose beneath. Although the sporeprint, when treated with Melzer's was clearly amyloid (blackish re-

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The Yellow Knight Redux: A French Opinion

by Jacques Brochard

A recent article in the French magazine, *Champignons,* April-May, 2003, relates some of the latest findings regarding the possible toxicity of "le bidaou", *Tricholoma auratum*. Reports in Europe about poisonings (some deadly) following ingestion of *T. auratum* and its "cousin" *T. equestre* (usually regarded as synonymous with *T. flavovirens)* should be the cause of some concern, particularly as we have been collecting and eating golden *Tricholomas* in the fall.

Tricholoma auratum

"Le bidaou" has always been considered an excellent edible and has been traditionally consumed in the southwest of France. Between 1992 and 2000, however, twelve cases of poisoning, including three fatalities, have been attributed to the mushroom. (Before that time, the popular belief was that all instances of poisoning could be attributed to the accidental inclusion of *Amanita phalloides* in the collection.) **In all cases, the poisoned individuals declared that they had eaten large quantities of "le bidaou" in at least three meals several days prior to their hospitalization.** All were very familiar with the mushroom and habitually collected it for eating. All collections were made in a specific region in southwestern France. The specimens were found under pines and in sandy soil. Subsequent experiments with mice who were repeatedly fed *T. auratum* produced the same symptoms as in the human victims: muscular destruction of "toxic origin."

It can be concluded that this mushroom should not be eaten in large quantities and/or repetitively. Some mycologists consider *T. auratum* to be a form or variety of *T. equestre.* One should, therefore, be prudent with the latter as well, particularly when one considers that two cases of *T. equestre* poisoning have been reported in Poland. The cause of toxicity is currently being researched at the *Laboratoire de Mycologie* and at the *Labor'atoire de Toxicologie* of the *Facultie de*

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PRESIDENT'S MESSAGE

While the populace at large complains of flooded roads and traffic signs obscured by foliage, the results of a very wet and cool Spring, mushroomers are secretly smiling. Our forays have been well attended and collecting baskets have not gone empty. The morels, while not plentiful, did not disappoint us. They were a bit late but since they are so scarce, finding just one is exciting. Planting Fields had wine caps *(Stropharia rugusoannulata*) and *Agrocybe praecox*. Oysters (*Pleurotus populinus*) in plentiful amounts made Bethpage a profitable trip. Even Belmont, though disappointing in some years, produced chicken mushroom (*Laetiporus sulphureus*) for all that attended. Massapequa came through with great clumps of fried chicken mushroom (*Lyophyllum decastes).* Inevitably, new and puzzling forms appeared: specimens that were taken home to be studied further. I hope this will be an incentive for those of you who haven't gone on an outing with us. If we do not always get full baskets, there is always something of interest.

Editor's Note

While most of us agree that mushrooming is a benign activity, there is a contrary school of thought which regards it as an predacious interference with nature which should be outlawed. There is little evidence for such a viewpoint, which seems to stem from an overly romantic and sentimental view of nature. Nevertheless, such voices are becoming shrill, and may have an undue influence in our legislative halls. For this reason, it is incumbent upon every organization such as ours to demonstrate that we promote good conservation practices. There is the even better reason that we really do not wish to depredate the resource upon which we all depend. To this end, the LIMC exhorts all members to always practice conservation by:

1– Never picking more than you can use.

2– Never picking every last one of a fruiting of a species. Leave enough to spread spores to germinate for future crops.

3– Do not pick immature or undersize specimens. Let them grow to maturity and continue the natural cycle of propagation.

4– Do not venture upon fragile habitat which does not regenerate easily.

If there are further suggestions that you can think of, please email or write us.

Material for the Autumn, 2003 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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MYCOLOGICAL MONOGRAPHS ON-LINE

by Joel Horman

Because no popular field guide can possibly encompass all existing macrofungal species, the serious amateur must access specialized species monographs. Thus I have been forced for some years to go through the tedious process of ordering out-of -print monographs, such as " NA Species of Pholiota", from my local library, and photocopying them, page by page, in order to identify rare or obscure species that we encounter from time to time. Now, thanks to the University of Michigan, 11 of these monographs have been made available on-line, where they can be accessed, downloaded, and printed, but unfortunately, not in one fell swoop. That is, the entire publication cannot be downloaded (transferred) to your personal computer, but can be viewed and printed one page at a time. This new digital source, although entitled, " Flora and Fauna of the Great Lakes Region", actually contains fungal data extending to the entire country, and in some cases, worldwide. The titles available, of A.H. Smith and collaborators (alphabetically, by species) are as follows:

The Boletes of Michigan, by Alexander H. Smith and Harry D. Thiers.

North American species of Crepidotus, by L.R. Hesler and Alexander H. Smith.

A monograph on the genus Galerina Earle, by Alexander H. Smith and Rolf Singer.

The veiled species of Hebeloma in the western United States, by Alexander H. Smith, Vera Stucky Evenson, and Duane H. Mitchel.

North American species of Hygrophorus, by L. R. (Lexemuel Ray) Hesler and Alexander H. Smith.

North American species of Lactarius, by L. R. Hesler, Alexander H. Smith.

North American species of Mycena. Smith, Alexander Hanchett.

The North American species of Pholiota, by Alexander H. Smith and L. R. Hesler.

The North American species of Psathyrella, by Smith, Alexander Hanchett.

Puffballs and their allies in Michigan, by Smith, Alexander Hanchett.

A preliminary account of the North American species of Rhizopogon, by Alexander H. Smith and S.M. Zeller.

While this does not exhaust the list of genus or family monographs of interest, it goes a long way toward the ideal of universal accessibility in this realm. Others, probably not included because published by different sources (other than Michigan U.), deal with Amanita (Jenkins, '86), Clitocybe (Bigelow,'82), Polypores (Gilbertson & Ryvarden, '86), etc. To access these, you will have to engage in the tedious process I described above, or search rare book collections and pay extravagant prices.

The best way to utilize this on-line source is to select one of the above titles on the Michigan U. website, which may be found at www.lib.umich.edu/programs/greatlakes/index.html .You will then be given a choice of either searching (4 options) or browsing the available titles. Select the fifth (unnumbered) option: "browse list of available works alphabetically by species", which will direct you to the titles listed above. Choose the appropriate monograph and when that page comes up, select "table of contents" in the upper left hand part of the page. You may then read any portion of the book by clicking onto the page number in the selection box; once a page is selected, you may proceed forward or backward, page by page, by selecting "next" or "previous", in the upper right hand corner.

Pages may be viewed in any of three modes: image, pdf or text. For viewing purposes, there is little difference, but if you wish to print the page, pdf or text is superior- you will have to experiment with your particular home set-up.

If attempting to ID a specimen, it is usually best to read the section, usually titled, "Characters", to ensure that your choice of genus is correct by matching up the macro and micro-characteristics. Satisfactory results enable you to move to the sub-genera section, and then, hopefully, to the correct species. (Be aware that the initial steps often require the use of a microscope. If one is not available, some micro-characteristics may be inferred by macros. E.g., fringed gill edges are in-

(Continued on page 6)

Book Review: "Mr. Bloomfield's Orchard"

(Mr. Bloomfield's Orchard, The mysterious world of mushrooms, molds and mycologists, by Nicholas P. Money, Oxford Univ. Press, NY, 2002, 208 pp, $26 hard-bound.)

"A few feet from the nest is a very ugly penis. Poking 6 inches or more from the pine needles, a full erection that arches a little, a pallid shaft protruding from a broken egg. Its head glistens with green-black syrup…. At the tip, a small hole is circled by a raised ring. Some degenerate must be hiding under the needles and is evidently aroused by the experience." In this lurid fashion Nicholas P. Money (Associate Professor, Department of Botany, Miami University, Oxford, Ohio) commences his volume, in an opening scenario that would not be out of place in a supermarket tabloid. He continues along this path, never missing an opportunity to gross out the reader, and even gratuitously devising occasions to do so. The heavy handed irony, sophomoric humor, and macho posturing detract from what is essentially a well written and often fascinating account of basic research in mycology. We are tempted to take seriously his stated motivation for writing this book as a mid-life crisis option.

Over the years, professional mycologists have occasionally turned out popularizations of their craft, with various emphases depending upon their particular areas of interest. Nicholas Money is a researcher who is intense both about basic research (particularly biomechanics) and the fungi, and he communicates these passions to the reader in clear and vivid detail. Even those of us who have read all the previous popularizations will find new and absorbing facts and ideas here. Some chapter topics will be familiar, like "Insidious Killers", an account of devastating fungal infections, and "Angels of Death", about poisons found in mushrooms. Others less so, such as the explanations of spore dispersal mechanisms (Buller's drop), spore durability, the mechanics of hyphal growth, the strategies of fungal aquatic (Ingoldian) spores, and other fascinating topics. In fact, the book is dedicated to Terence Ingold, whom the author serendipitously discovered to be a neighbor of his after he embarked on his career as a mycologist. A chapter is devoted to the idiosyncratic figure of Henry Reginald Buller, who deserves a biography, and to the lesser figure of Curtis Lloyd, a millionaire amateur, and his acrimonious disputes with the academics. The eponymous Mr. Bloomfield turns out to be another neighbor, whose dark and neglected apple orchard proved to be a treasure trove of fungi that turned Money's early interests to this kingdom.

As long as he confines himself to established facts, and clearly identifies his speculations, Money is on solid ground. When he lets his prejudices get the upper hand, the result can be curious. For example, he is, "not convinced" that "amateur mycologists…should be encouraging the sport of mushroom hunting" despite the fact that they are also acknowledged " to be responsible for a great deal of our knowledge of mushroom distribution and diversity". As he sees it, the problem is "human population", and "collectors who strip every fruiting body from the same area every year", as well as "disrupt mycelia by compacting the soil". Perhaps, as he alleges, "logic suggests this", but there is precious little in the way of scientific evidence to do so. Any field mycologist can attest to seeing myriad of Russulas and other mushrooms unconcernedly emerging from well-trod paths. And not to distinguish between commercial and recreational mushrooms is to do a disservice to amateur organizations, which stress conservation and moderation in harvesting. Inasmuch as amateur mycologists must be the primary audience for his work, Money appears to be snapping at the hand that feeds him.

My second broad aim is simply to point out that nature is wonderful, and that much of the wonder lies in its variety. Without classification, the variety is simply bewildering, and bewilderment gets in the way of thought. The act of classifying focuses our thoughts and the more we think, the greater the wonder becomes; for this, as Hamlet said in a somewhat different context, is the appetite that grows from what it feeds on. Classification, in short, is not a dull pursuit for obsessives. It is the essential aid to understanding, the means by which to come to grips with life's variety. It puts us in touch...

(Colin Tudge, "The Variety of Life", Oxford U Press, 2000)

Yellow Knight Redux

(*Continued from page 1)*

Pharmacie of Bordeaux, France.

Symptoms of poisoning appear 2-3 days after ingestion of the mushroom and may include: a sense of general fatigue, muscle pains in the lower extremities which worsen with time, sweating without fever, light nausea without vomiting and darkened urine. Those who survived the poisoning have described a muscular weakness, which persisted for weeks afterward.

Tricholoma equestre

The club should be concerned with determining precisely which species of golden *Tricholoma* grow in our region. Those who have eaten the mushroom in the past and have experienced mild discomfort might try to recall and describe their symptoms. These people, in particular, should refrain from eating golden *Tricholoma* in the future. When collecting mushrooms for eating, every single specimen should be identified with no room for doubt.

(Editor's note: See the article, "Beware the Yellow Knight", LI Sporeprint, Winter, 2001. At that time the article in the N. England Journal of Medicine first making public this study identified the mushroom as Tricholoma flavovirens. Tricholoma auratum is a very similar species not known to occur in the US, but this should not make us any the less wary, in light of the Polish poisoning incident.)

FINDINGS AFIELD

(Continued from page 1)

action), the correct subsection of Amanita was unclear to me since the margin was not obviously appendiculate, perhaps the result of rain. Nevertheless, Dr. Rodham Tulloss, internationally known expert in this genus, tentatively identified a photo file as *Amanita canescens*. He confirmed this identification after examining a dried specimen. Jenkins, in his "*North American Species of Amanita*" describes this species as having a distribution in Alabama and possibly New Jersey, and places it within section *Lepidella*. As such, it is unusual, most members of this section being of white coloration. Dr. Tulloss reveals that **this is the most northerly specimen collected, and the first from New York State**; it will be donated to the fungal herbarium of the NY Botanical Garden.

Another southerly form was found by LIMC member George Davis, to whom it looked rather different from the *Amanita muscaria v. formosa* that we usually find here. He was correct, and this specimen was identified by Dr. Tulloss as *A. formosa v. persicina*, which has lighter orange to melon tones in the cap, and a pinkish tinge to the gills compared with *v. formosa*. Jenkins gives its distribution as Virginia and Tennessee south to Florida.

Amanita canescens

Amanita formosa v. persicina appears to be fairly common in the pine barrens area in the fall, including Edgewood and Rocky Pt. Preserves.

The Long Island Mycological Club is pleased to Welcome the following new members

Lance Biechele **Gerta Fritz**

Anthony Gazzola **Randy Parr**

Christine Torinese & Michelle Liva

Rina Torinese

Phil Jones & Sheila Meltzer

Special Thanks to Tony Mish for his generosity in bringing and sharing a very large *Laetiporus sulphureus* with all attendees at the Christie foray.

Monographs On-line *(Cont. from page 3)*

dicative of cheilocystidea.) Black and white images are available, but not always easy to access. Some of the volumes have a list of illustrations in the table of contents, while others do not. In the latter case, one must return to the home page and conduct a search for the species epithet, which will often, but not always, offer the correct page for the image, which can then be evoked by clicking. If not blessed with a result, the last resort is to return to the main species page, note which plate number corresponds, and then make a stab at which of the pages labeled NA it might be. There is a series of pages at the end of the table of contents, all unnumbered, (an inconvenient omission) and all labeled NA, where the plates are stored. In addition to supplying an image of the plate as it appears in the original publication, the original photograph from which it was derived is also pictured. Although not in color, these are of high quality, and can be magnified for viewing of details.

Useful as this resource is, and grateful as I am for its appearance, it is still not the same as having a sturdy little bound volume in hand which one can carry about, leaf through and peruse at leisure.

The University of Michigan has done a great service for amateur mycologists. The movement for free access to academic research continues to expand, and we may look forward to increased electronic availability of a variety of research materials.

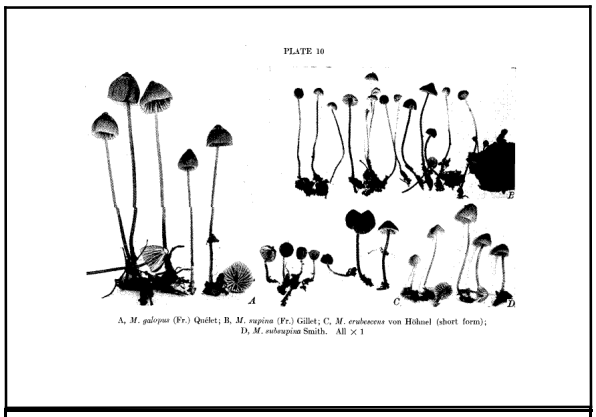
PLATE 10

A, *M. galopus* (Fr.) Quélet; B, *M. supina* (Fr.) Gillet; C, *M. erubescens* von Höhnel (short form); D, *M. subsupina* Smith. All × 1

Reproduction of Plate from "NA Spec. of Mycena"

THE 'SHROOMS OF JUNE

The following is a partial list of mushrooms those of us who are afield in June may expect to encounter. This list is based upon LIMC forays as well as personal records. Most are common species, and about 40% of them are edible. Many persist into July. Seek and ye shall find...

Agaricus silvicola
Agaricus arvensis
Agaricus silvaticus
Agrocybe pediades
Amanita brunnescens v. alba
Amanita ceciliae
Amanita crenulata
Amanita fulva
Amanita flavoconia
Amanita muscaria
Amanita rubescens
Amanita vaginata
Amanita volvata
Amanita spreta
Amanita vaginata
Boletus/Xanthconium affinis/affine
Boletus bicolor
Boletus pulverulentus
Boletus subglabripes
Boletus subtomentosus
Cantharellus cibarius
Cantharellus cinnabarinus
Ceratiomyxa fruticulosa
Chalciporus pseudorubinellus
Clavaria cinerea
Collybia acervata
Collybia dryophila
Coltricia cinnamomea
Conocybe lactea
Conocybe tenera
Coprinus atramentarius
Coprinus plicatilis
Craterellus fallax
Gyroporus castaneus
Hohenbuehelia petaloides
Hygrophorus pratensis
Inocybe lacera
Lactarius camphoratus
Lactarius gerardii
Laetiporus cincinnatus
Laetiporus sulfureus
Leccinum albellum
Marasmius nigrodiscus
Marasmius oreades
Marasmius rotula
Megacollybia plattyphylla
Melanoleuca melaluca
Meripilus giganteus
Mycena galericulata
Mycena haematopus
Paneolus campanulatus
Paneolus foenisecci
Phyllotopsis nidulans
Pisolithus tinctorius
Pleurotus ostreatus
Pleuteus longistriatus
Pluteus cervinus
Psathyrella condolleana
Russula crustosa
Russula heterophylla
Russula laurocerasi
Russula mariae
Russula virescens
Stropharia rugosoannulata
Suillus americanus
Suillus granulatus
Tremelledon pallidum
Trichaptum biformis
Tubifera ferruginosa
Tylopilus felleus


photo by Peggy Hor-

Gyroporous castaneus

Gleanings

■**BACKYARD BIODIVERSITY:** Researchers have counted the number of infected ticks on bird and mammal hosts and found that in areas of high biodiversity (many possible hosts) the liklihood of a tick feeding on an infected animal is lower than in areas of low biodiversity. That is so because some of these potential hosts have low-reservoir competence; that is, even if bitten by an infected tick, the species either is unlikely to become infected or unable to pass on the infection. The model suggests that since suburban areas have a lower biodiversity (due to forest fragmentation) the incidence of infected hosts is greater, hence the increased chance of humans contracting Lyme disease. (K. LoGiudice et al., "The ecology of infectious disease: Effects of host diversity and community composition on Lyme disease risk," Proc Nat Acad Sci, 100:567-71, Jan. 21, 2003)

■**RARE AND PROTECTED FUNGI:** *Bridgeoporus nobillissimus,* the noble polypore, (see "Diamond Lake, Oregon" article, LI Sporeprint, Winter, 2002) is not the only protected endangered fungus. The other species receiving such a high level of protection is *Bondarzewia mesenterica (= B. montana).* Sites where these mushrooms are located will legally have 240 hectares (600 acres) of habitat protected from disturbance. Another 243 rare and endemic mushroom species will have 160 acres withdrawn from management activities until those sites can be surveyed. These rulings are a result of the federally mandated Northwest Forest Plan, brought into being by the Northern Spotted Owl controversy. "Although not a part of the listing process for the Endangered Species Act, this action still represents the first Federal listing of fungal species for protection in the United States and highlights the need for a research program addressing poorly understood conservation issues for forest fungi," to quote the US Forest service. This undertaking is a reminder of how poorly the distribution and occurrence of mushroom species has been documented throughout our land; hopefully, surveys of this type will be instituted more widely. Full details of the program, including descriptions and images of the fungi, may be accessed at their website http://mgd.nacse.org/fsl/survey/.

■**GEORGIA ON MY MIND:** Gastón Guzmán (world authority on the species *Psilocybe)* and associates, report the discovery of a new bluing species of *Psilocybe*– ***P. atlantis***- from Georgia This has been placed in the section Mexicana, which contains hallucinogenics, and is only the second known from this state, the other being *Psilocybe weilii.* (Mycotaxon 86: 179 - 183. 2003).

■**SONG OF THE FUNGI:** Aurora Sanchez Sousa, mycologist and microbiologist at Ramon y Cajal Hospital in Madrid, was inspired to transpose the DNA sequence of the yeast *Candida albicans* to music by assigning arbitrary notes of the musical scale to each of the genome letters; for example, *do* to letter C, signifying cytosine, and *re* to letter T, for thymine. The resulting melodies, created by Sousa and composer Richard Krull, from this and snippets from other organisms, resemble New Age music, and are scheduled for publication on a 10-track instrumental CD entitled, "Genoma Music/Music on the Genome." A work in which, "Music and genetic sequences are fused to express the essence of life through sensations and feelings," says Sanchez Sousa. To hear samples of her music, access her website at www.genomusic.com. For an annotated list of other such sites, see www.whozoo.org/mac/Music/Sources.htm.

■ **RETIBOLETUS, A NEW GENUS:** On the basis of DNA sequencing, as well as previously established chemotaxonomic evidence, (Retipolides pigment) M.Binder and A. Bresinsky of Clark University have erected a new genus in the Boletaceae. Two NA species have been renamed on this basis and moved to this genus: *Boletus ornitapes* and *Boletus retipes*, as well as several Asian species, *B. flavoniger* and *Tylopilus nigerrimus*. Another NA species, *Boletus griseus*, although lacking Retipolides pigment, has also been transferred to the newly erected genus. Henceforth, those who wish to assume the mantle of taxonomic correctness must refer to *Retiboletus ornitapes,* and *Retiboletus griseus,* both of which occur in our area. (Feddes Repertorium, 2002, Vol. 113, iss. 1-2, pp. 30-40).

Retiboletus ornatipes

(Compiled by editor from various sources.)

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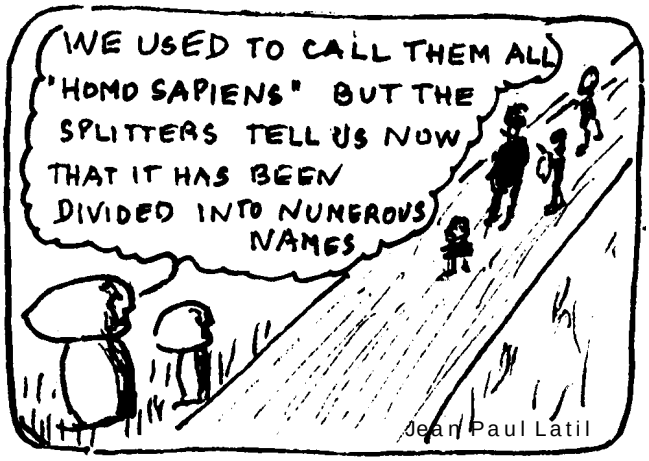

IN THIS ISSUE

Now I am terrified at the Earth, it is that calm and patient,
It grows such sweet things out of such corruption...
It gives such divine materials to men,
and accepts such leavings from them at last.

Walt Whitman, ***Leaves of Grass***

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