FINDINGS AFIELD
by Joel Horman

From the farther reaches of our mycological domain comes this specimen, serendipitously encountered in the Jamaica Bay Wildlife Refuge while birding, on August 12, 2003. A group of the above pictured mushrooms were conspicuous in a cespitose clump on the compacted soil of a popular trail near a marsh. Although we were otherwise engaged, they were irresistible, and we gathered them, noting that although not a familiar species, the genus appeared to be *Clitocybe*. The colors (which may be seen in the online edition) were a remarkably uniform pale violaceous buff throughout, inclusive of gills, stipe and cap. The spore print color was likewise near pink, or as Bigelow describes it, a “pale vinaceous fawn”. Microscopically, the ellipsoid

In the Forests of Bordeaux
by Joel Horman

The second expeditionary force of the Long Island Mycological club filtered piecemeal into Paris at the end of October, one year after the combined forces of the NY Mycological Society and LIMC. After reconnoitering at a splendid dinner at the restaurant Bio-Art on the banks of the Seine with foray leader Jacques Brochard and his fifth column (otherwise known as his sister and brother-in-law Isabella & LucAntoine Salmont and family) we concluded our strategic planning. The next day we boarded the high velocity train to Nantes at the very last moment to confound any possible surveillance, an exercise which required split second timing and utmost dispatch, despite the appearance of seeming disorder.

Our ploy seemed to work, and the other passengers regarded us as mere tourists, although a few suspicious glances put us on our guard. As tourists, we pretended to relax and enjoy the view of the bucolic countryside, which sped past at blurring speed, hour after hour. A timeless landscape in muted late autumn colors passed by.
PRESIDENT’S MESSAGE

This has been a very strange year for our club, with ample rain but less than ample harvests. Some species, such as spring Oyster mushrooms, and some Chicken and Hen of the Woods made a timely appearance. But Boletes were scarce this autumn, in contrast to last year’s bounty; maybe next year. The reports from upstate and New England were the same.

Aside from our local forays, some members attended national and regional forays. NEMF presented theirs in the Catskills again this year and you can read about in Dom’s article in this issue. (The NAMA foray in Quebec was written up in the last issue.) Also reported here is the foray to France which some of us also attended.

Our membership is at an all time high with some very motivated people joining our weekly walks. I do hope that more of you will turn out this coming year so that you too can find something interesting for all of us to ponder.

Our Mushroom Day was almost a washout. A few sturdy members did come in spite of the rain and all was not lost. A special thanks to all who showed up and gave a hand. What would we do without you?

Due to the blizzard, our annual luncheon was cancelled. The roads were so bad that it was not worth taking a chance. I thank Paul and Genevieve for all their time and efforts in dealing with the restaurant arrangements. They never complain.

Some of our forays were a bust because of spells of dry weather and also due to some traditional park sites being disturbed by raking. Some changes will be made in the coming year’s foray schedule. There will be at least one new foray location. It was suggested by Ken Gobright and looks quite interesting. At least no one has raked all the leaves up there!

In closing, I’d like to thank all those who helped throughout the year, and all members of the board. Without YOU, there would be no LIMC. YOU make the difference. Speaking for myself, I love our little club. Happy New Year!

EDITOR’S NOTE

Although the rains did not produce prodigious quantities, they seem to have encouraged the appearance of many seldom seen species, (see Findings Afield, p.1) which will be enumerated in the Spring issue. In that regard, I want to thank all those who brought specimens of new species to my attention, and those who also ID’d them as well, particularly Tony Mish, Susan Gaeta, Dom Laudato and George Davis.

Additionally, I wish to thank all those who eased the burden of producing the LI Sporeprint by contributing articles and photos, namely Jacques Brochard, George Davis, Susan Gaeta, and Dom Laudato. Our newsletter is the voice of the membership, and all contributions are welcomed. Many of you have interesting mushrooming stories of days both great and poor that you should think of sharing with us. Make a new year’s resolution to commit them to paper (or floppy) in the coming year.
NEMF 2003 Foray
by Dom Laudato

The Ninth Annual Sam Ristich Foray of the Northeast Mycological Federation was held at Scott's Family Resort at Oquaga Lake in Deposit, N.Y. from September 11 - 14, 2003.

Hosted by the Susquehanna Valley, Mid York and Central New York Mycological Societies, it was thought to be one of the better forays by all that attended. Attendance was lower than past NEMF forays but the friendliness, camaraderie, reasonable cost, comfortable accommodations, abundant delicious meals, evening boat rides around the lake, nightly Happy Hours (9 - 11 PM), excellent forays, informative and often hilarious lectures compensated for the low attendance. (There were 145 members present; NAMA's Quebec foray held two weeks prior to the NEMF may have contributed to the lower attendance.) No laboratory workshops were offered.

Representing the LIMC were Jacques Brochard, Claudine and Henri Michaud, and Gloria and Dom Laudato. It was a grand, educational, fun-filled and productive weekend for members spanning the years from babes in arms to 80+. LIMC members should make an effort to attend next year's NEMF Foray that will be held at Lake Winnipesaukee, New Hampshire. You will not be disappointed; you will learn a great deal, enjoy the company of like-minded individuals from other Northeast clubs and, upon leaving for home, look forward to the following year's NEMF conference.

Dr. Tom Volk's lecture, "Expose: The Hidden Sex Lives of Fungi", explained that every cell of a mycelium has the capability to mate (exchange genetic material) with another, with cross-fertilization resulting. Hyphae can fuse with one another during vegetative growth, exchange nuclei and form dikaryons, i.e., cells with two nuclei, one from each parent cell. Sexual reproduction then proceeds, with a plethora of possible genetic combinations. An animation of clamp connections (openings between hyphal cells) showed how nuclear material was passed on to each cell as long as the clamp remained in the open position.

Schizophyllum commune has 28,000 possible mating types, or sexes, with outbreeding theoretically occurring 99.98% of the time. Yet inbreeding is still 25% among its siblings. Trametes versicolor also has thousands of mating types rendering each fruiting somewhat genetically different. An interesting factoid was the claim that 98% of what is labeled Amanita virosa is actually Amanita bisporigea.

As you may discern from the above remarks, this lecture presumed some knowledge of genetics. I inquired of Dr. Volk regarding Laetiporus sulphureus var. alba* and Griffola frondosa var. alba and he assured me that these were not recognized species. Alba is a mutant and not a genetically different type; ergo there is no recognized "alba".

Much more could be written of Gary Lincocoff's and David Fischer's lectures but briefly, Gary's lecture and slide presentation, "Same or Different? You Be The Judge", discussed and showed slides of mushrooms of the same species that can look very different and mushrooms of different species that can look "exactly" alike. He cautioned that confusion exists, especially in comparing an American species with its counterpart in foreign countries, since although the nomenclature may be identical, the reality may be different. A slide was shown of Boletus parasiticus, whose species name was assigned because of the belief that this bolete parasitizes the Scleroderma, but this has not been proven; they might be associated for yet unknown reasons.

Jolly David Fischer concluded the conference with a slide presentation accompanied to music.

The entire faculty was extremely amicable, helpful and competent. Their tireless endeavors at identification resulted in a total count of 347 species; 24 were new to the NEMF list.

*(Editor's note: Not to be confused with Laetiporus sulphureus v. semialbinus, now properly known as L. cincinnatus)

The most productive habitats were Hemlock (Continued on page 4)
The Oldest Surviving Mushroom Recipes

*(From the “Zeitschrift für Mykologie”, Mai, 2003, by permission.)*

Translated from the original German by Monika Lutz

(Thought to be the most ancient extant record of recipes in the Western world, “De re coquinaria”, *The Art of Cooking* by Apicius Coelius, an 18th century reproduction is pictured above—also contains some interesting mushroom recipes. The cook book, found in the Vatican Library, contains detailed description of about 500 recipes from the time of Diocletian, Roman Emperor from the 4th century. Little is known of Apicius, although legend has it that he was a wealthy Roman who, after losing his wealth, poisoned himself after hosting an enormous banquet. Its first appearance in print occurred in the last decades of the 15th century, and by that time the work has acquired many additions. Its ten chapters cover topics from sauces and spices to wine making techniques, and provide a detailed view of Roman cuisine.

Noted physician Martin Lister’s annotated version of Apicius’s text (pictured above) was first issued in London in 1705 in an edition subscribed to by Isaac Newton and Christopher Wren, among other notables. The frontispiece shows a Roman kitchen from an 18th-century viewpoint.

What the Ash tree mushrooms are in the recipes is anyone’s guess—not Gyrodon meruloides, I hope. Editor’s comments.)

If you are a friend of old Roman Cuisine, here are Roman Mushroom Serving Suggestions from Coelius Apicius:

a) Boiled, whole warm Ash tree mushrooms can be mixed with fishstock and plenty of ground pepper.

b) Ash tree mushrooms can be marinated with pepper, sweet reduced wine and oil.

c) Steamed mushrooms can be served with salt, oil, undiluted wine and chopped fresh cilantro.

d) You can create a meal with Boletes by cooking them with sweet reduced wine and fresh cilantro which gets removed from the cooking broth before serving.

e) The stems of the boletes can be served drizzled with fish sauce (fishstock) or sprinkled with salt.

f) Put sliced stems of boletes together with eggs in a shallow bowl, drizzle with lovage, honey, broth and a little oil.

g) Dried morels are served with a marinade of simple winebroth.

h) Boiled morels can be served with a dressing of salt, oil, fresh wine, chopped cilantro and pepper.

i) Boiled morels can be served with the following sauce: celery seeds, garden rue, honey, pepper, a little sweet berry wine, fishstock and oil, thickened with starch, add pepper and serve.

j) Recipe for morels: mix caraway, garden rue, broth, a little sweet wine, oil, fresh cilantro and leek, and serve this as sauce.

k) Drain the boiled morels, add them to a pot with oil, spiced fishstock, salt; add wine from dried berries for color and thicken with starch.

l) Chop small morels and discard the fibers, mix into boiled barley and eggs, add fishstock and pepper; add nuts and pepper and fill into casings, fry in a pan, add winebroth and serve instead of meatloaf.

NEMF 2003 (Continued from page 3)

swamps. Boletus edulis was rare with only two perfect specimens of the clavate-stipe variety taken. *Xerula furfuracea* were quite abundant and a few clumps of bright *Omphalotus illudens* elicited oohs and aahs. The persistence of the front line troops, the hill climbers and swamp forders— the mushroom collectors—made the foregoing possible. The final results were reflective of a weekend that steadily developed into a great success.
fore us: rolling hills, endless vineyards, copses of oaks and elegant Normandy poplar, ancient stone farmhouses with tiled red roofs, sprawling hilltop chateaux. All seemingly unchanged from their depiction more than a hundred years in the Impressionist landscapes we enjoyed at the Musee D'Orsay.

Arriving at Nantes, we connected faultlessly with our advance transport party, otherwise known as Jacques' sister and brother-in-law, Ghislaine and Christian Geibert and Joél Robin, who goes by the nom-de-guerre of Jojo. After sampling the famous local buckwheat crépes, our motorcade raced into the countryside to their remote encampment, a farm house situated in a nature reserve where we spied our mission target, euagarics or macrofungi, better known as mushrooms, growing uncamouflaged near the garden. The following day's foray in a neighboring pine forest, led by Jojo, was wonderfully productive, with a total of about 30 species, most of which were familiar, such as Armillaria mellea, Boletus badius, Agaricus silvaticus, and Mycena rosella. Others were European species such as Coprinus picaceus, Suillus bovinus, and Lepiota excoriata. That evening, we had gathered sufficient edibles (some of the above mentioned, as well as Lactarius deliciosus, Lepista nuda, and Macrolepiota procera) for our evening mess, which was superbly prepared by our volunteer chefs d’cuisine, Peggy and Jacques. Another night, local fare, platters of fresh, raw oysters, and heaps of freshly gathered roasted chestnuts -always accompanied by more than ample supplies of wine- made for a rustic, satisfying meal.

Then off again the next morning, our convoy heading southwest in the direction of our planned rendezvous at the coast near Bordeaux, with a stop at the village of Saintes, and an evening spent nearby at the charming XVIII century Chateau Mouillepied (Wet feet). There we were greeted by a huge outcropping of honey mushrooms seemingly erupting from the ground, which we had to forgo picking due to the lack of kitchen facilities.

The following day’s journey proved to be an exercise in orienteering, but our transport personnel proved equal to the task and we successfully arrived at journey's end, the resort of Les Dunes, situated in Bombannes, between a fresh water lake and the sea, in one of Europe's most extensive pine forests, replanted during the Napoleonic era. This is where the planned foray was to take place, and the agents of many European societies had gathered to pool their mycological forces. Their level of knowledge was impressively high, and although the foray was not as highly organized as in the USA, the informality and small numbers (about fifty) lent the enterprise a more relaxed and intimate air. The one lecture presented (in French only) was on a topic of worldwide interest, that of the toxicity of Tricholoma flavovirens, or, as M. Deffieux (co-author of the original New England Journal of Medicine article) referred to it, Tricholoma equestre v. auratum. (See sidebar on page 6 for more details.)

Francis Mas-sart, president of the Société Linnéenne de Bordeaux, accompanied by his honor guard, was on hand to greet us, and accepted a dried specimen of Tricholoma flavovirens that had slipped past security. In exchange, we secured an exsiccate of Tricholoma auratum, which is now safely within US borders, and will be scrutinized at a later date. After confirming our identity, we were presented with local intelligence handouts in the form of an ecological description of the coastal area. This described the two dominant types: the coastal dunes (wooded, stable and unstable); and sea-pine plantations alternating with patches of broadleaved trees, mostly oaks. Our teams immediately scouted the area, and verified the presence of some common but spectacular species, such as Amanita muscaria and Gymnopilus spectabilis, growing nearby.

As no troop vehicles (i.e., buses) had been made available for transport, we each had to scramble for accommodations in attendee's autos to participate in the forays. The extensive pine plantations, which are harvested for their lumber, closely resemble our pine barrens, and hold many similar, if not identical species. Specimens were sorted, identified, and shown on display tables in the manner we are all familiar with. Some unusual specimens were found, such as Lowenomyces (Polyporus)
Further information on the "Tricholoma equestre" poisoning occurrence in Poland last year has been made available online in journal database of PubMed which has abstracted an article (in the journal Przegl. Lek. 2002;59(4-5):386-7), written by J. Chodorowski et al, of the Department of Internal Medicine and Toxicology, Medical University of Gdansk.

This episode involved a mother and son, who had consumed 100-300 grams (about 3.5-10.5 oz.) in nine consecutive meals. This parallels the French poisoning numbers, where the victims consumed large quantities of "Tricholoma flavovirens" in three consecutive meals, with three resultant fatalities. Both the Polish victims recovered after 23 days of hospitalization, during which time laboratory tests disclosed the presence of rhabdomyolysis (muscle destruction) and all causes other than mushroom toxicity (parasitic, viral, immune diseases, trauma or exposure to medications) were ruled out. The conclusion was that Tricholoma equestre contains a toxin which can cause rhabdomyolysis.

For us, however, this conclusion is just a starting point. We must ask: is this European species referred to variously as Tricholoma equestre, T. flavovirens, and T. auratum equal to our local T. flavovirens? While the final verdict is not yet in, it is instructive to consider Ms. Deffieux's comments in his lecture at the Bordeaux foray. He concludes that the poisonings were associated with Tricholoma auratum, which he considers a subspecies or variety of T. equestre, and consequently refers to it as T. equestre v. auratum- the other variety being T. equestre v. flavovirens. We collected T. equestre v. auratum during the foray (see photo P. 5) and noted that it is a more robust and brightly colored form than our local T. flavovirens. Moreover, it is said to be symbiotic only with the seaside pine, Pinus maritimus. If this is so, then our local species is not implicated as a cause of rhabdomyolysis. Nevertheless, because of the close and still cloudy relationship of these species, mushroomers should remain prudent and follow the Canadian Health Services caution to consume no more than one meal of modest size (3 oz.) per week.

of the LI Sporeprint, it is available online at www.lib.umich.edu/programs/greatlakes/index.html. However, it is mentioned in several European guides, namely in Bon’s “Mushrooms & Toadstools of Britain & NW Europe”, where he describes it as being uncommon and having a menthol-like odor (unlike our specimen). Francis Massart’s “Guide Pratique des Champignons” considers the “Lepista Blanchâtre” edible and calls it a pale variety of the wood blewit.

Apparently rare on Long Island, Lepista glaucocana will be added to the LIMC checklist.
WHEN THE WORM DOESN'T TURN: Invasive worm species imported for fishing bait and then discarded by careless fisherman have proliferated throughout the US, causing undesirable ecosystem changes. Now outnumbering native species, they disrupt the function of forest leaf-beds by consuming them and the resultant fecal compacting has rendered the habitat unsuitable for many species. One recent research paper describes the resultant eradication of a fungus associated with the goblin fern in Michigan, severely endangering this rare fern. (*NYTimes Science section, Oct. 28, 2003*).

FUNGAL LIFE EXPECTANCY: Arbuscular mycorrhizal (AM) fungi are microscopic and produce an extensive hyphal network in the soil that invades the tissues of most plant roots. (Not to be confused with externally mycorrhizal macrofungi.) In return for food (sugars, which are carbon compounds) the plants are supplied with nutrients. This transfer of carbon from plants to fungi is a crucial component of the terrestrial carbon cycle, but the microscopic size of the hyphae has made it difficult to determine the residence time of carbon in these fungi. In the May 16 Science, Philip Staddon and colleagues at the University of York used accelerator mass spectrometry (AMS) to show that the hyphae live for about 5 to 6 days. Their data also indicate that the transfer of carbon to the hyphal network is rapid and on a large scale (*Science, 300:1138-1140, May 16, 2003*).

OLD WINE IN A NEW BOTTLE: The common edible puffball *Lycoperdon pyriformis* (pear-shaped puffball) has been given a new rebirth, or at least a christening. Authors Dirk Kruger and Haans Kreisel have proposed, on the basis of DNA research, that the genus *Morganella* be emended to include a new subgenus, *Apioperdon*, and that *Lycoperdon pyriformis* be relocated to *Morganella*, with the resulting new name of *Morganella pyriformis*. Don’t hold your breath until you hear this combination uttered in the field. (*Mycotaxon 86: 169 - 177. 2003.*).

FOSSIL FUNGI: Another fossilized mushroom has been found in amber, bringing to four the number of such specimens, and it has been named *Aureofungus yaniguauensis* by its discoverer, mycologist David Hibbett of Clark University. Found in the Dominican Republic, as several of the others were, it is estimated to be 15-20 million years old. While it is speculated to be a member of the Tricholomataceae, its exact taxonomy cannot be determined without damaging the specimen. The oldest known mushroom fossil, *Archeomarasmius leggetti*, discovered on the Atlantic plain of New Jersey, is thought to be about 90 million years old. Since amber is fossilized tree sap, these species were necessarily either saprobes or parasites. (*Mycophile, vol. 44:6, Nov-Dec, 2003*)

WELCOME, NEW MEMBERS

WILLIAM CITTERBART, JR
LINDA HORGAN

GEOFFREY HIND & BONNIE HULSE
BETH & LYLE PETERS

STATELY MUSHROOMS

Only 2 states have designated a state mushroom. They are Oregon, which, in 1999 shortly after the species was differentiated, designated the chanterelle *Cantharellus formosus*. The Pacific Golden Chanterelle, formerly thought to be *Cantharellus cibarius*, as unique in Oregon's wild mushroom harvest:

*Morchella esculenta*, commonly known as the morel, sponge mushroom, or honeycomb morel, was adopted as the official mushroom of the state of Minnesota in 1984.
“It is easy to look, but learning to see is a more gradual business, and it sneaks over you unconsciously, by stealth. The sign that it is happening is the fact that you are not bored by the absence of the spectacular…”

Robert Hughes, “A Jerk on One End, Reflections of a Mediocre Fisherman”.

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