LONG ISLAND MYCOLOGICAL CLUB

http://limyco.org

L.I. SPOREPRINT

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MUSHROOM DAY 2006

Mushroom Day 2004

OCT. 15, 1-4 P.M.

All LIMC members are invited to join us at our annual public mushroom exhibit at Planting Fields Arboretum. **The public display will run from 1 to 4 PM, but if you wish to help, arrive around 12 noon to help in setting up the exhibit**. Remember that the entrance fee now applies to LIMC members also. Bring any interesting specimens that you find for exhibition and identification. (You do not need to identify it yourself.) Spread the word, and let everyone you know who has even a passing interest in mushrooms or natural history of this event.

(Our annual meeting has been moved to the annual luncheon, in order to assure a voting quorum. Those not attending will receive a ballot via email or by post.)

Variation and Identification

Bertrand Russell distinguished between "knowledge by description" and "knowledge by acquaintance" and implied that the gulf between them was fundamental. Knowledge by acquaintance is direct knowledge of an object gained through the use of our senses. Knowledge by description encompasses everything we know indirectly, through the description of others, and this includes images as well as language both written and spoken. Images encompass drawings, paintings and photographs, which can be especially uncharacteristic of their subject, as many of us are painfully aware when scrutinizing our passport photos.

Most of us learn mushrooms by trying to reconcile the two, first either looking at descriptions of species in guidebooks and then trying to match those descriptions with the actual thing, or vice versa. But as Gary Fine points out in his, "Morel Tales: The Culture of Mushrooming", field guide descriptions are "ambiguous and metaphorical…In order to use the guide and understand the description, one must rely on a stock of background knowledge and personal experience of having seen the mushroom previously.... The description is insufficient for identification…" This is true of natural history guidebooks generally and holds for botany, lepidoptery, ornithology, etc., but is particularly applicable to mushroom study because of their greater variability and their short existence.

In a lifespan measured in days or weeks, mushrooms can grow a hundredfold; their colors and shapes can morph from bright to dull and from squat to elongate. Many beginners can easily confuse a young and a mature specimen as two different species. The fact that there is no circumscribed growing season, as there is for flowering trees and nesting birds, adds another cause for confusion. Sporocarps can appear almost anytime, sometimes fruiting at an unaccustomed season, and single specimens of supposedly cespitose species can occur. Moreover, there is an inherent variability in species, which is reflected in guidebook descriptions such as the following description of the pileus color of a bolete (*Chalciporus piperatus*): …"buff to yellow-brown, orange-brown, or reddish brown" (Bessette, 2000).

In addition to genetic variability, and the changes brought about by aging, there is also some little understood variability due

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REVISED FORAY SCHEDULE INSIDE

PRESIDENT'S MESSAGE

Where were all the Craterellus and Boletes this summer? This is the first year I can remember that five forays in a row were cancelled due to dry weather. At all the scheduled sites, conditions were so bad that barely any mushrooms were in evidence. My guess is that the prolonged ninety degree heat and lack of rain affected the mycelium so that no fruiting bodies could be produced. (That is, except fungi that grew on wood which has its own source of moisture.) Further, I wonder if the infestation of caterpillars in some stands of trees also affected the mushroom fruiting. Those areas had the least fungi of all, due perhaps to the mycorrhizal not receiving their expected allotment of nutrients. Now the rains have returned, the temperature is more seasonal and things are popping up. What things are yet to be discovered?

Our annual luncheon will be held at a new venue this year. It will be at *The Library Café* in Farmingdale the Sunday before Thanksgiving. The private space will be more appropriate for a group. We'll be having our usual free raffle where everybody wins plus a continuous slide show of mushrooms on their TV monitors. It should be fun and I hope you'll all attend. The general meeting will take place and it would be nice if more people participated. (Many thanks to all who suggested new places to have our event. As always, food, location and price had to be factored in.)

Please consider attending Mushroom Day at Planting Fields on October 15th.. Bring any specimens that you find for exhibit. This is the one occasion when our club can introduce the public to the fascinating world of fungus.

A bountiful fall to all of you!

EDITOR'S NOTE

We are an informal group, so it is easy to forget that we do have an organizational structure, with duly elected officers. But to maintain our open and democratic nature, we do have to vote on occasion, and that time is coming up. This year some board members terms will be ending, and members are asked to vote on their retention. While in the past this vote has taken place at the annual business meeting conducted at the end of Mushroom Day, our failure to obtain a quorum on several occasions has forced us to move the meeting to the time of our annual luncheon, when we invariably have a greater percentage of our members present. This year, for the purpose of greater inclusion, ballots will also be made available to non-attendees, either through email or postal mail. At that time we will also invite the membership's suggestions, inquiries, and concerns, so that they can be addressed at future board meetings. Please respond when queried.

MATERIAL FOR THE WINTER, 2006 EDITION SHOULD REACH THE EDITOR BY NOVEMBER 30TH

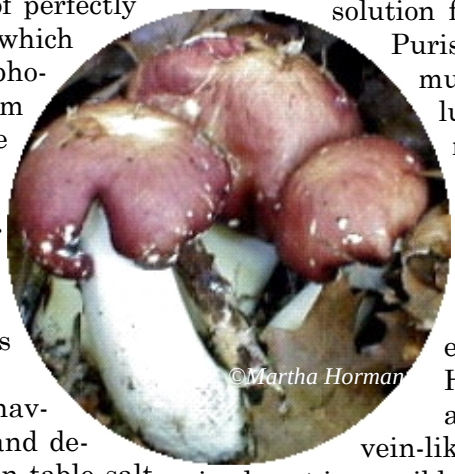
(Submissions should preferably be typed or submitted in Rich Text Format on PC floppy disk or by e-mail)

Rediscovering The Esculent Stropharia

by Dom Laudato

As many of my colleagues in the LIMC will attest, I refrained from harvesting the Wine Cap, *Stropharia rugosa-annulata,* for table use. Invariably, I donated those that I did pluck from the wood chips to those whose baskets ached for these monsters of the fungus world. To my sense of taste and odor, these beautiful mushrooms imparted a strong, medicinal, ferrous quality that ordained that their destiny was not to accompany me home after a bountiful foray. Of course, my fellow-foragers offered suggestions regarding their preparation for consumption but none seemed to transmute the inedible into the promised gastronomic delight. Pre and parboiling were offered as well as boiling in two changes of water, followed by sauteing with various spices. All to no avail. The Wine Cap was not amenable to my palate until . . . .

This past Spring I came upon a site that produced weeks of continuous flushes of perfectly formed specimens, - the shapes of which jumped at me as a collage of the many photos that we view in the sundry mushroom books we own or have visited over the years. Many of you have experienced this vision of *S.rugosoanulata* shapes and sizes of caps, annuli and stems. If you have not as yet, then one day you will and that glimpse of Nature's handiwork will not be forgotten soon. It is beautiful to behold.



I chose a dozen young caps having diameters in the three inch range and decided to try a preparation using common table salt. McIllvainites reading this will probably cry "overkill", but trusting that there are others who would like to consume these mushrooms for the same or other legitimate reasons, I continue. I can not overstress that the slightly extended prep time has transformed, for me, an easily accessible, unappetizing fungus into a fine-tasting delight that I now fully enjoy. So, for those of you who have shied away from *Stropharia rugosoannulata* and would like to try them, follow these directions:

1. Carefully remove the entire stem. Stop to examine the annulus, the partial veil that broke away from the stem and adheres to the expanding cap. Remove a large section of the toothed annulus and on the side closest to the underside of the cap you can observe the light gray miniaturized gill structures that persisted as the gills grew upward and out as the cap expansion continued.

2. Using a thin, finely serrated paring knife, grasp the edge of the inrolled margin of the cap and draw the cuticle toward the center of the cap. Peel the entire cap in this manner. If all proceeds well there might be a small area of the cap cuticle remaining attached to the center of the cap. Gently scrape this area with the fine serrations. All traces of the cuticle are thusly removed.

3. Cut the bald mushroom cap into quarters. With gill side up of a section facing you, slice and remove the lamellae, (gills) which should be grayish, not blackish. Do same for all the mushrooms you intend to cook.

4. Place the sliced or chopped pieces in a bowl with a solution of about one tablespoon salt to a quart of water. Allow mushrooms to remain in the solution for a half hour or slightly more. Purists will claim that mushrooms must never be washed (and absolutely never be soaked in water or much worse, salt water) but a review of the literature will reveal that many authors do recommend washing the grit and soil that stubbornly clings to various mushrooms. One or two references will be given on request. Have you attempted to brush away the coatings of soil from the vein-like structures of a chanterelle? It is almost impossible. But a bit of soaking and brushing does the trick. And would you eat a 'dirty " Boletus edulis? You might prefer to wash it rather than relegate it to the compost pile.

5. Drain and rinse the Stropharia pieces. Prepare according to any method you prefer. The strong taste (and odor) has been released to the salt solution via, I believe, an osmotic reaction.

Regardless of the chemistry involved, try it, you might like it.

Wine Caps!

Three Recipes for Stropharia rugosoannulata

by Claudine Michaud

Here are my made-up recipes for the *Stropharia rugosoannulata* (Wine cap) that I found last week on chipped wood. They were so good, almost good enough to die for!

I made three types of meals depending on the shape or size of the Stropharia. They came in 3 shapes: (1) the very young with bell-shaped, reddish-brown cap with the annulus still attached (2) the small and medium ones with the caps wide open, (3) the very large (one was 10 inches in diameter, very firm and clean with no worms!)

Baby Winecap Stew

8 cups of very young wine cap
1medium-sized onion chopped
4 garlic gloves sliced
'/a cup of red wine (or white, whatever you have)
3 tablespoon of olive oil
thyme, salt, pepper to taste

Leave the mushrooms whole. Heat the oil and sauté the onions for few minutes. Add the mushrooms and garlic, sauté 3 minutes, add wine, spices and cook slowly for 30 minutes. Adjust for taste and serve on rice, barley, pasta, or bread.

Broiled Wine Caps

Small and medium Stropharia, with the cap open and flat

In a prepared baking pan (foil-covered if desired, and sprayed with oil), place the cap(s) gills up, sprinkle with oil generously, add salt and pepper and broil for 10 minutes. Serve hot as an appetizer.

Stuffed Stropharia

The very large ones (mine were 10 inches in diameter!):
2 large Stropharia
oil, salt and pepper
1 cup of breadcrumbs
5 garlic cloves, finely chopped
4 smaller wine caps chopped
thyme, salt and pepper, parsley or coriander
Grated Parmesan
Olive oil

Place Stropharia on a prepared baking pan (see recipe #1 above), gills side up, sprinkle with olive oil, add salt and pepper, and broil for 10 minutes, set aside; save the juice for the stuffing.

Stuffing: in a frying pan, pour 3 tablespoons of olive oil, sauté garlic for one minute, add the chopped wine caps, fry for 5 minutes, add spices then the breadcrumbs. Mix everything well, add the juice from the broiled large caps. If the mixture is too dry, add some drops of wine or water.

Fill the caps with the stuffing, add the Parmesan to taste, and return to the oven for 5 minutes. Add either parsley or coriander before serving.

Serve for lunch with a salad.

Bon Appetit!

Wanted: Southern Leopard

Frog sighting or reports

Southern leopard frogs were once quite common throughout much L.I. It is only in the past 30 years that this species has suffered tremendous declines. It is now unclear as to whether or not this frog still exists at all on Long Island. If surviving populations can still be found, I plan to work on the conservation of this species as part of my PhD research to save it from disappearing entirely from Long Island. If you have any information regarding this species on Long Island, please contact me using the information listed below. Thank you for your help and support.

Please contact:
Jeremy Feinberg
Doctoral Student - Rutgers Univer-

A MUSHROOM'S RETREAT

Metabolizing back down through
the silky moss, back down
beneath
the forests floor
to dream, and dream, and dream
again
of what it means to briefly wallow
in such feverish foreign sun -
to dream, and dream, and dream
again
of morning's moist, tantalizing
dew.

Max L. Stephan

Reprinted from Christian Science Monitor, July 6, 2006

Gleanings

■ **TRUFFLES DOWN UNDER[2]:** Now truffles are both literally and figuratively down under, since the Southern Highlands of Australia (near Sydney) have begun to produce a commercial crop of the famed black truffle, *Tuber melanosporum*, which amounted to 176 lbs. in their first year of production. Only a pittance, compared to France's harvest of 8-10 tons, but at $2300 per kilo, not funny-money. Since truffles grow in winter, the antipodean reversal of seasons means that fresh product will be available in August. (*The Christian Science Monitor, Aug. 30, '06.)*

■ **AN ANCIENT PARTNERSHIP:** A survey of results published since 1987 produced a checklist of mycorrhizal occurrence among 3,617 species of plants; as much as 92% of plant species may be mycorrhizal. The predominant type is AM (arbuscular mycorrhizal), which is the ancestral type, occurring in the majority of land plants and liverworts; their origin probably was concurrent with land plants. Ectomycorrhiza (ECM) evolved from AM many times independently and coevolution between them and plant life contributed to mutual diversification. Some plants evolved in such a way as to lose their symbionts. (*Mycorrhiza, May,'06, B.Wang & Y.L.Qui, U. of Mich.)*

■ **AROMAS REDUX:** An odor recorder, a device capable of analyzing and later reproducing or "playing back" the aroma is being built by engineers at the Tokyo Institute of Technology. 15 chemical-sensing microchips in the device will analyze the smell, and then recreate it by mixing and heating drops from 96 different chemicals. The system is sophisticated enough to reproduce the odor of orange, lemon. banana, lemon and can even tell the difference between green and red apples. While applications such as improving online shopping are being contemplated, mushroomers can dream of the day when the subtle aromas of various species can be played back at will. *(NewScientist.com news service, July 29, '06.)*

(*Compiled by editor from indicated sources.)*

OAKS & HUMAN HISTORY

If some extraterrestrial race were to find no more of humanity than records kept on some future colony far from Earth, if they could reconstruct the original meanings of the names, they could learn how people lived. It is a history in which wood and the greenwoods play the leading part. Between the thinking and the making, the world came into existence and hominids began to become human.

The Fosters and Foresters, the Woodwards, Wards, and Haywards distributed the rights to use certain trees in certain ways. The Hoggs pastured their swine on fallen acorns. The Cobbs pollarded the trees, cutting them back to between eight and fifteen feet rail, high enough to be out of the reach of browsing animals. The Hughes and

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REVISED FORAY SCHEDULE

10/21	**South Haven County Park**	**Jacques Brochard**	**10:00 AM**
10/28	**Bethpage State Park, Bethpage**	**Jacques Brochard**	**10:00 AM**
11/4	**Peconic Hills County Park, Riverhead**	**Anna & Bob Warasila**	**10:00 AM**
11/11	**Wading River High School**	**Tony Mish**	**10:00 AM**
11/18	**Christie, Nassau County**	**Debbie & TJ Persampire**	**10:00 AM**
11/25	**Welwyn Preserve, Glen Cove**	**Erich Schulz**	**10:00 AM**

Cut and paste this revised table onto your existing Foray Schedule

VARIATION

(Cont. from page 1)

to nutritional and environmental factors such as soil composition, rainfall, temperature, mycorrhizal host vigor, etc. It is not unusual to come across individuals outside the known size range claimed in guide books.

This amazing range of variation can make identification a daunting task. Even such "gold standard" techniques such as spore measurement and reagent reactions can be misleading. Spore size of a species can vary with the age of an individual mushroom, with the presence of two-spored basidia or giant basidia, or with disease. There is also some evidence that local variation in spore size occurs (A. Bessette, pers.comm.) and this may be reflected in the varying spore sizes reported by different investigators. The same holds true for chemical reactions, which may be even more influenced by small vegetative differences. If local variations exist (sometimes designated as subspecies in other disciplines) they are not emphasized.

Even seasoned scholars are not immune to overlooking these facts, which is part of the reason that each year a small percentage of newly named mushrooms turn out to be synonyms of known species. *(E.g., Gandara, Etelvina & Gaston Guzman. The status of Psilocybe floridana (Strophariaceae) in Callistosporium (Tricholomataceae). Mycotaxon 96: 73 - 76. 2006. Evidence is presented indicating that the type specimen of Psilocybe floridana is the same type of Callistosporium psilocybe and that both names are synonyms of C. luteoolivaceum.)* When we venture further afield, comparing species from different countries and continents, our feeble senses are insufficient; seemingly macroscopically identical species have been demonstrated to be genetically different

How then is the poor harried amateur to reconcile this seemingly immense gulf? Alas, just as there are no shortcuts to differentiating poisonous and edible mushrooms, no shortcuts exist to help us in the general identification of species. As a learning device, we can follow individuals well versed in the study of mushrooms, whose word we trust, and who can clearly and pithily explain the difference between one species and its close doppelgangers. But to do so in a credulous and unexamined way is to rely solely on authority, which is not a dependable way of learning. The testimony of others is but one additional factor in the array of evidence to be considered. In the last analysis, we are thrown back on our own resources and must examine the evidence and arrive at our own conclusions, and be as sure in our own minds as it is possible to be in such matters, which is always less than certainty. We should never try to force an identification, to fit a round peg into an oval hole. It is no shame to come up with the Scottish verdict of "not proven." At the end of the day, we confront the platitude that there is no substitute for experience. Not one that is passive, but focused and active, detail oriented, critical, and reliant upon our own perceptions.

OAK

(Continued from page 5)

the Fellers dropped whole trees. The Cleavers, Clovers, and Clevengers split the wood; the Sawyers and the Pitmans sawed it. Then the others went to work. The Barkers harvested the tan bark, and the Tanners cured leather with it. The Coopers, the Hoopers, the Beckers, and the Benders worked the raw wood into barrel staves. The Wheelwrights and the Axelrods turned the wood for spokes, bent it for rims, and shaped large balks into axles. The Carpenters, Turners, and Woodwrights built the half-timbered houses, split the flooring, shaped the joists, turned the furniture, and planed the wood for cabinets. The Boatwrights molded the keels and fit the clenched-lap planks to them. The Crews worked slender strips of wood into weirs for fish traps, while the Cases fashioned boxes. The Colliers, Colemans, and Charbonnels reduced waste wood to charcoal, so that the Smiths, the Fabers, the Febvres, the Levebres, and the Coughs could forge iron and the Paines make glass. The Ploughwrights and the Coulters joined sturdy shaped beams to make drawing shafts for the plows.

Among all lists of names derived from wood, none is longer than the list of those derived from oak. All names that contain the roots ac, ech, ag, [illegible] ache, chene, cas, daru, dru, and [illegible] their origin to oak. The Alkmans, the Eichorns, the Eichorns, the Actons, Akroyds, Akers, Oakhams, Wokinghams, Oakleys, del Encinas, [illegible] della Roveres, Chaneys, and Cashes [illegible] all of oak. It is the most widely used tree name in all the Western languages, from Sanskrit to Celtic, from the Indian subcontinent [illegible] of Ireland. The name of the historic Buddha, Shakyamum, means "the sage of the oak tree people."

(From, "Oak:The Frame of Civilization", by Wilford Bryant Logan, W.W. Norton & Co., 2005)

FORAY RESULTS SUMMARY

June 17, Caleb Smith (BioBlitz): 27 species, 13 of which were Polypores, some previously unrecorded including *Laxitextum bicolor* and *Schizophora paradoxa* (ID'd by Aaron Norarevian).

July 1, Muttontown Equestrian: 28 species, including 3 Amanitas, 3 Boleteaceae, and 2 each of *Inocybe, Conocybe,* and *Crepidotus. Clavicorona pyxidata* was widespread, as was Russula vinacea, and its parasite, *Hypomyces luteovirens*.

July 8, Heckscher SP: 42 species, including 6 Amanitas, 10 Boletes, 6 Russulas, and 3 Lactarius. There were good numbers of *Craterellus fallax.*

July 15, West Hills South: 50 species, with 7 of Amanita, 3 sp. of Chanterelles (cibarius, cinnabarinus, and ignicolor), 6 Lactarii, including good amounts of hygrophoroides, and 7 Russulas.

July 22, Bethpage SP: 61 species, with 6 Amanita, 16 Boleteaceae, 3 Cantherellus plus good amounts of Black Trumpet, 6 Lactarius with fair amounts of gerardii, hygrophoroides, and corrugis; also, an unknown Agaricus sec. arvenses (details in a future Findings Afield column).

July 29, Caleb Smith SP: 34 species, mostly Amanitas, Russulas, and Lactarius. Lastly, a probable *Callistosporium purpureomarginatum,* a Collybia-like mushroom with purple edged pinkish gills, new to the list.

Callistosporium purpureomarginatum

(All August forays were cancelled, due to the dry spell which ended the abundant rain of the first half of the year.)

Gasteroid Fungi or Gasteromycetes? What are Puffballs, Earthstars and Earthballs?

Species that enclose their spores in an outer structure and that do not forcibly eject their spores have long been grouped into the Gasteromycetes. However, it was realised some time ago that this is not a valid taxonomic group, a point which molecular studies has proven. One factor that was pointed out some years ago was some "Gasteromycetes" eg the Dyeball, *Pisolithus arhizus,* was found to contain pulvinic acids, a substance only known to be synthesized by Boletes. Then it was also noticed that the ascomycete *Sepedonium* (teleomorph: *Hypomyces*) – the species that forms the yellow mould like bloom on decaying Boletes, also attacked earthballs in the genera *Pisolithus* and *Scleroderma*. This led to the realisation that these species were actually closely related to Boletes and not other "gasteromycetes". Molecular work has since confirmed this and in addition, also put the Barometer Earthstar, *Astraeus hygrometricus* in the Boletes. Earthstar and Stinkhorns are closely related and are in the euagaric group, the Puffballs, *Lycorperdon,* are most closely related to *Lepiota,* and there are Gasteroid genera like the truffle *Hymenogaster* that are linked to the Cortinariaceae and even one species, *Zelleromyces stephensii,* that is related to *Lactarius*. We may have to get used to the Stump Puffball, *Lycoperdon pyriforme,* getting a new name because molecular work is showing it to be different to the rest of the genus *Lycoperdon*. This would not be a great surprise as it is the only Puffball on wood and there are microscopical differences with the rest of the group as well, but more work needs to be done to confirm this.

(*From the website of the Irish Fungal Group: www..nifg.org.uk/home.htm. Suggested by Lance Biechele.* Based upon: Binder, M. & Bresinsky, A. (2002): *Derivation of polymorphic lineage of Gasteromycetes from boletoid ancestors.* Mycologia 94(1), pp. 85-98.)

WELCOME, NEW MEMBERS

THOMAS CULLEN **CHRISTINA M. DEMOLA** **JAMES LAMPERT**

ADAM EHMER & JENNY LABONTE **JOHN TRUE & SHIAN-REN LIOU**

FRED & RANDI SOLIS **PETER KACZOROWSKI & DIANA VAN BUREN**

IN THIS ISSUE

"And I said, with rapture, here is something I can study all my life, and never understand." ***Moran, in Samuel Beckett's "Molloy"***

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REVISED FORAY SCHEDULE INSIDE