*LONG ISLAND MYCOLOGICAL CLUB*

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# L.I. SPOREPRINT

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**VOLUME 26, NUMBER 3, AUTUMN, 2018**

## MUSHROOM DAY
## OCTOBER 21
## *PLANTING FIELDS ARBORETUM*
## *1 PM —4 PM*


This display, for educational purposes, is our major public event, and we ask all members to participate by collecting samples and arriving between 11:30 AM-12 to help set up. Members can inform the booth attendant of that and avoid the fee.

This year's copious rainfall has provided good collecting and we hope this continues so as to ensure a satisfactory display. If it does not, then all the more reason to make an extra effort to pitch in and bring specimens so as to help make this day another successful one.

If you are a new member, this is a perfect opportunity both to meet the others as well as to gain familiarity with a wide variety of species from every corner of Long Island.

## *RADULOMYCES PAUMANOKENSIS:* A NEW SPECIES DISCOVERED ON AND NAMED FOR LONG ISLAND

For some years, LIMC has collected a puzzling hydnoid species, always on downed wood, which went unidentified, but not for lack of trying. There is a plethora of non-stipitate hydnoid species including: *Mucronella, Steccherinum, Hydnochaete, Hypodontia, Irpex, Dentipellis*, to name just a few, and discriminating between them is not a trivial task; and complicated by corticioid species that may become dentate.

In our case since we had collections which varied in maturity, including nascent forms, we could be sure that our species was hydnoid from the very start. The first specimen was collected in Brookhaven SP in July of 2009, in apparently advanced age, on woody debris. The next time we encountered it was during a LIMC foray in Muttontown Preserve on Oct. 2, 2016, at which time it was at a very early stage. (Photo page…) Our third encounter took place November 19, on the last foray that same year at Wellwyn Preserve. This specimen, collected by Aaron Norarevian, was fully mature, the pendant teeth arranged in a compact hemispherical bouquet about 4 cm wide. This collection was slated to become the holotype of the new species, but not until the Summer of 2018, when publication took place.

Several stages were involved in the process, the first being the DNA sequencing which was carried out by Pablo Alvarado of AlvaLabs in Oviedo, Spain. Sequencing was performed on the Muttontown specimen, which was subsequently designated as the paratype

***(Continued on page 3)***

## PRESIDENT'S MESSAGE

Autumn is here at last! The leaves of some trees are starting to turn and cooler temperatures prevail. We love this and so do a lot of fungi. Amanitas, Russulas, Boletes and others are now putting on a display. Let the fall season begin! (Come on Tricholomas, show yourselves.)

Our Annual Picnic was wonderful this year. Excellent homemade dishes, desserts and all kinds of goodies were brought by members. Many thanks to all who helped setup and cleanup. It makes it so easy for me and I really enjoyed myself this time.

Next big thing is Mushroom Day at Planting Fields Arboretum on September 21st. Please collect on your own on the Friday before and on our foray the next day. If you have some good specimens and can't attend, you can leave them with one of us who will attend. I encourage you all to come. It is always a nice opportunity to see old friends and new. The grounds are also lovely at this time of year.

For our new members: don't feel that you must learn all the names of the fungus we find. It is usually best to get to know familiar ones and learning one or two a week is great. We have over one thousand mushrooms on our list and the names are constantly changing. It is a challenge to be sure. I have been with the club 26 years and I still have trouble with names. However, I have learned to identify correctly all the edible and most dangerous of our finds. The best advice is to get the most recent books of fungi in our area. Even then, you won't find everything. The internet is a great source if you stick to reliable sites like Mycoportal or Mushroom Expert.

See you along the trail!

## EDITOR'S NOTE

.Although strictly not an editorial concern, I will continue to use this space for updates on the Mycoflora Project.

Originally we received a grant for the sequencing of 30 specimens at Rytas Vilgalys lab at Duke University. Apparently only 28 were successful, and we will report on these in the next issue. A second round of funding is now underway, and if our grant application is successful, an additional 50 specimens will be sequenced. With any luck, this will clear up some long standing mysteries, and may even produce species new to New York state, or perhaps the USA, as has occurred several times in the past.

During a foray, especially a productive one, things can get hectic, and it is easy to forget to take note of important details such as the exact substrate associated with a specimen, surrounding vegetation, etc. We will now be providing data slips on our forays, and ask those who discover interesting specimens to complete them with the requested data when turning them in. The collector's name should also be included, as this becomes part of the permanent record after submission to the NYBG herbarium, which can be searched by this input as can Mycoportal.

Something cool to show your grandchildren!

**MATERIAL FOR THE WINTER 2018 EDITION SHOULD REACH THE EDITOR BY DECEMBER 1ST.**

(Submissions may be forwarded by email in any format or typed.)



(All unsigned articles authored by editor.)

## *Radulomyces* *(Continued from page 1)*

of the new species. The first attempt at sequencing was of the ITS region of the DNA, the most widely used section for fungal identifcationtion (barcoding).

This showed a 92% match to *Radulomyces* and further sequencing of the LSU region, which has been demonstrated to provide congruent identification results when ITS is unavailable, was carried out. This successfully produced a 99% match to several species of *Radulomyces: R. confluens* and *R. molaris,* but opined by Pablo to be neither of those species.

***Early stage, on hardwood log among lichens***

At this point, I contacted Dr. Karen Nakasone, at the Center for Forest Mycology Research, US Forest Service, in Madison, WI, whose lecture at the NAMA 2017 foray I had attended. After reviewing our macro and micro photographs she concluded that our specimens were not *Radulomyces copelandii,* as I had mistakenly surmised. She graciously suggested that the exsiccata (dried specimens) be forwarded to her for analysis. We gratefully did so, and after a short while, were pleased and exited to learn that Karen had concluded that we had a new species. She suggested that we assign a epithet to it based on location or some feature of its appearance. It was agreed that assigning it the epithet "paumanokensis" based on the Native American name for Long Island was appropriate. Particularly so because, of the many type specimens found by Peck and other mycologists on Long Island, none is based on location, and "paumanokensis" had never been used before for any species, fungal or otherwise, as far as can be determined. Long Island has also been referred to, by Walt Whitman and others, as "fish-shaped Long Island". With a bit of imagination fish-shaped could refer to the terminal ends of the spines, which are flattened and when young split into a lobed shape.

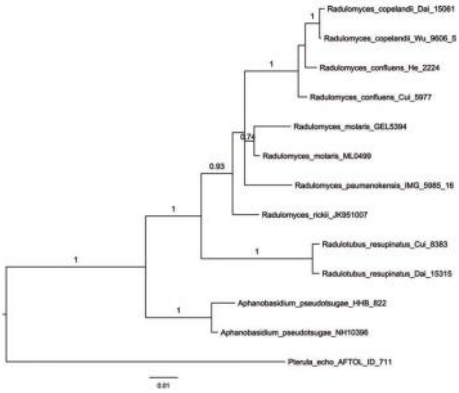
Short Description and Phylogeny of *Radulomyces paumanokensis* with excerpts from Karen Nakasone's analysis and with molecular analysis by Beatrice Ortiz-Santana.

The mature basidiocarp (photo, p.1) is a compact hemispherical cluster of branching, pendant spines about 5 cm. wide, pale orange to grayish orange, found on downed rotted hardwood. The individual spines are up to 20 mm. long, fused at the base, then dividing several times and terminating in a flattened, sometimes split apex.

Microscopically monomitic, composed of clamped hyhae about 3µm wide and cyanophilic (bluing in Lactophenol). Spores also cyanophilous, globose to subglobose, about 6 µm in diameter. Cystidea rare, clavate, thin-walled, 42-52 X 6.5-7. "Hyphidia simple, filamentous, rarely subcapitate, 20 –35 × 3–3.5 µm, clamped at base, walls hyaline, thin, smooth."

It differs from other species of *Radulomyces (R. copelandii, R.molaris)* in its "compact basidiocarps composed of numerous branched spines" but resembles them in its "simple hyphidia and large basidiospores with cyanophilous walls."

"Phylogenetically, *Radulomyces* belongs in the Pterulaceae (Agaricales) and is most closely related to *Radulotubus* Y.C. Dai, S.H. He & C.L. Zhao and *Aphanobasidium* Julich." It forms a strongly supported clade with these species. (Phylogram below.) The study also found an ITS sequence from northwest Georgia, near the Black Sea, labeled *R. copelandii,* that is 99% identical to *R. paumanokensis,* and based on "sequence similarity alone, we conclude that these two taxa are conspecific; thus, the distribution of *R. paumanokensis* extends to Eurasia."




Following the publication of this study in the June 2018 issue of Cryptogamie, Mycologie and the announcement of the new species, the specimens were deposited in the NYBG herbarium. *Radulomyces paumanokensis* will now proudly be added to our Long Island Species Checklist.

I wish to acknowledge my profound thankfulness to Dr. Karen Nakasone for her generous help in pursuing this inquiry and bringing it to a successful conclusion, for her permission to reprint her illustrations, and for making reference materials available to me.

Reference*: Radulomyces paumanokensis* J. Horman, B. Ortiz, & Nakasone, sp. nov., *Cryptogamie, Mycologie,* 2018, 39 (2): 211-25

# FORAY RESULTS SUMMARY

**HECKSCHER S.P. JULY 7:** Thirty-two species total was fair with Russulas predominating with 9 species plus some *Lactarius gerardii.* Five species of Boletes made an appearance, with many *Gyroporus castaneus,* all infected, as usual, by Hypomyces. *Inocybe unicolor* was collected here for the first time, and the same applied to *Xerocmus hypoxanthus,* which we had only identified last year.

***Inocybe unicolor***

**BETHPAGE S.P:** Cancelled.

**WEST HILLS C. P.** Cancelled.

**BROOKHAVEN S.P. AUG. 5:** We braved temperatures in the nineties to collect 48 species here and also in Southaven C.P. until heat exhaustion kicked in. There were good amounts of edible boletes including *B. russellii, B, pallidoroseus*, and *B, pallidus*. Edible Russulas included *R. compacta, R. crustosa, R. virescens,* and *R. mariae.* There were a few yellow chanterelles, now ascertained to be *Cantharellus tenuithrix, C. cibarius* being a European species. Black Trumpets were found, as was Yellow Foot Chanterelle, *Craterellus ignicolor*. *Boletus floridanus* showed up in Southhaven, where it has appeared for several seasons. A near perfect *Sparassis americana* collected by Roger Eklund elicited oh's and ah's of admiration.

***Cantharellus tenuithrix***

**BLYDENBURGH C. P. AUG. 12:** Eighty-one species, the second highest total for this time and place, were collected at this Flash Foray. There were increased amounts and sizes of Chantarelles, and the edible Lactarius included *L. corrugis, L. hygrophoroides, & L. gerardii, (*In fact, this has been the most bountiful year for Chanterelles ever, particularly in Suffolk County, due to copious rainfall.) We found all three species of *Coltricia: cinnamomea, perennis,* and *montagnei.* The lovely *Clavaria zollingeri* made one of its rare appearances. Three species new to our checklist were identified: *Hygrocybe parvula, Hygrocybe (Gliophorus) irrigates,* and *Coprinus sterquilinus.*

***Stemonitis splendens***

**WEST HILLS C.P. AUG. 19:** The continuing plentiful rainfall, amounting to 9.5" in some Suffolk areas, continued to produce prodigiously, so that we tallied a record total of 86 identified species; several additional unidentified will be sent for sequencing. One new bolete species identified as *Xerocomus sclerotiorum*, nom prov., exhibited staining reactions (red, white, & blue) similar to *B. patrioticus.* In all, there were 13 bolete species including *Leccinum (*formerly *Boletus) rubropunctum,* nicknamed "The Ashtray Bolete" in the Bessette Eastern NA guide because of its odor; considered edible but unpleasant tasting.

***Clavaria zollingeri***

**SOUTHAVEN C.P. SEPT. 15:** Our annual picnic provided many goodies, not all of them store bought. The foray was divided into two teams and produced a total of 68 taxa, 3 identified as to genus only. There was a fair amount of edibles, including Chantarelles both Yellow and Orange, Black Trumpets, Chicken, and some edible Russulas & Lactarius. One new species was found, *Trichoglossom rasum,* to be confirmed by DNA. The picnic itself was a great success, attended by 30 members in perfect Autumn weather. (See photos p.7)

**MUTTONTOWN EQUESTRIAN, SEPT. 22:** Only 41 species this time, but with unlimited numbers of Honeys, both *A. mellea* & *A. tabescens.* Baskets of *Entoloma abortivum* as well, but many insect ridden. Two Calvatia gigantea were quickly divided among the foragers. Several interesting species turned up, one an instantly reddening Lepiota which quickly blackened and closely resembled the West Coast *Lepiota flammeotincta,* another candidate for DNA sequencing. We also collected a hydnoid species which may turn out to be *Radulodon americanus* according to Karen Nakasone. Again the most common Bolete was Leccinum rubropunctum, the nasty smelling "Ash Tray Bolete". But our newest member, Lingli Lou, found the largest specimen of *Xerula* (now *Hymenopellis*) *fufuracea* we have ever seen.

# NEMF 2018 42nd SAMUEL RISTICH FORAY
## State University of NY at Geneseo
## July 26-29

**LIMC members & friends at NEMF banquet: Standing, L to R: Roger, Joel, Peggy, Sal, Steve, Anthony. Seated, L to R: Jacques, Beata, Maria, & Susan.**

This foray was hosted by four regional clubs, Central NY Mycological Society, Mid York MS, Rochester Area Mycological Association, and Susquehana Valley MS. The dorm accommodations were unexpectedly upgraded so that attendees enjoyed climate controlled conditions, in contrast to the usual oven-like dorms usually encountered.

This is a beautiful area of crags and waterfalls known as the "Grand Canyon of the East" exemplified by Letchworth State Park, where many of the forays took place. July unfortunately was a dry month here, but the 1.7" that fell in the week previous to the foray helped a bit, with participants murmuring that it was too little, too late. Nevertheless, with hundreds of avid hunters scrutinizing every last twig and leaf, a total of 413 species were collected (including slime molds and Lichens) 59 of which were new to the NEMF checklist.

As is the custom, mycologist's prizes were awarded to those who collected rare or interesting species. These included some which have not as yet been encountered here on Long Island, such as *Wynnea americana* (Rabbit's Ears). *Crinipellis stipitata* ( a hairy marasmiod species), *Entomophaga muscae* (Fly Death Fungus). The fact that many of these are tiny illustrates how hard foray goers were searching. Others were more common, such as *Phellinus igniarius, Gyroporus purpurinus,* and *Cryptoporus volvatus*– collected by our own Stephen Huysman. Dr. Tim Baroni, the Entolomataceae expert, selected *Leptonia subserrulata,* infrequently collected but added to our checklist only last year.


**Dianna Smith eulogizing Gary.**

Lectures and workshops ran the usual gamut from technical (Ascomycete workshop, Amanita phylogeny) to popular (Preparation of Edible Mushrooms, Hands On Tincture Making, Home Mushroom Growing ).

Following so closely upon the death of Gary Lincoff, the beloved author and foremost mushroom educator in the USA, it was fitting that the major evening address was dedicated to his memory. Many spoke movingly of their personal memories of him, accompanied by photos and videos depicting him as an engaging and enthusiastic young man to an older but unfailingly upbeat lecturer and educator. He was the guiding light of NEMF, and his passing leaves a gap that cannot be filled. To learn more about his life and work, read Dianna Smith's remembrance at www.nemf.org and click on Gary Lincoff.

**Dr. Young lecturing.**

The introductory evening lecture by Dr. Richard A Young, Prof. emeritus of Geology was a lovingly detailed account of the shaping of this region by the previously undated glacial advance now known to have halted only two miles north of Geneseo 13,000 years ago. The gigantic outflow of melting ice carved many of the dramatic features nearby, including the famous gorge in Letchworth State Park.

Another interesting evening lecture was given by the animated Dr. Teresa Lebel, Senior Mycologist at the National Herbarium of Victoria in the Royal Botanic Gardens Victoria in Australia, entitled "Crouching Mycologist: Truffle-like Fungi Diversity and Interactions.". In a remarkable display of erudition, she described her research into hypogeous (beneath ground) fungi, their evolution, taxonomy, biogeography, and ecological interactions. She has

***(Continued on page 7)***

# FROM OUR MEMBERS:

*Ganoderma curtisii*
**from a member of the public**

***Amanita Muncher*** **by Peter Priolo**

***Boletus nobilissimus***
**by Jacques Brochard**

*Sparassis americana*
**by Roger Eklund**

***Chlorophyllum molybdites***
**from a veterinarian**

***Collection of Chanterelles***
**by Anonymous**

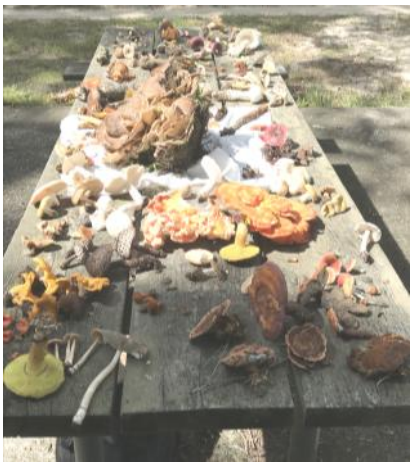
## *Shiitake, Spinach and Soba Noodle Soup for Two by Peggy*

**Ingredients :**
**1Tbs. olive oil**
**2 cloves garlic minced**
**1" piece fresh ginger minced**
**1 ½ cup sliced fresh shiitake mushrooms**
**2 scallions sliced on diagonal white parts separate**
**1 bundle soba noodles (enough for two)**
**3 cups of Trader Joe's Miso broth (or veggie or chicken broth)**
**3-4 cups baby spinach**
**1 Tbs. soy sauce**
**Few dashes of sesame oil**

**Directions:**
**Saute garlic and ginger in oil for about two minutes until fragrant. Add shiitake and cook until well done.**
**Meanwhile, cook the soba noodles until done, drain.**
**Heat broth adding white parts of scallion. When very hot, add spinach and cook until just wilted.**
**Turn off heat and add sesame oil. Place a portion of noodles in 1/3 of a soup bowl, spinach next to it and lastly the spinach. Pour broth over all and sprinkle with green part of the scallions. Salt and pepper to taste and perhaps a dash of hot sauce. If you like, you can add a hard boiled egg as seen in picture.**

# LIMC PICNIC 2018- A PHOTOESSAY BY CATHY SAMA

**LIMC MEMBERS ASSEMBLED**



**THE COLLECTION TABLE**

**CHANTARELLES, ETC**

**LUNCHEON IS SERVED**

**SORTING & SOCIALIZING**

***NEMF 2018*** ***(Continued from page 5)***

described 10 new genera and 90 species, many having evolved from gilled fungi including *Lactarius, Boletaceae, Cortinarius* and *Agaricaceae*. An interesting discovery was the finding that increased number of foxes leads to reduced dispersion of these species since the spores are spread by the small mammals that consume them.

The mycophagy session was quite good, despite the lack of hot dishes. All in all, the hosting clubs are to be commenced for planning and organizing a very smoothly run foray. Ten LIMC members attended, some for the first time, and satisfaction ran high, with loads of Chanterelles collected to bring home.

We encourage our members to attend the NEMF 2019 foray, which will take place at the University of Pennsylvania in Lock Haven, from Aug. 1 to Aug.4. Further details will be provided in the Spring edition of the LI Sporeprint.

## ■ ANOTHER REASON TO SHUN TICKS:

Readers are probably aware of the meat allergy caused by the bite of the Lone Star Tick, but are less likely to know the background of this malady. It is caused by the antibodies produced by the introduction of the mammalian alpha-gal sugar by the tick's bite, which the tick has acquired by previously biting a mammal other than an ape or one of its relatives, us included, which do not have alpha-gal. Hence, an allergic reaction occurs when mammalian meat (beef, pork, veal) is consumed. Recent research has shown the possibility of serious ramifications: a correlation has been demonstrated between this allergy and 30 percent increased coronary plaque buildup. Further research is planned to uncover the possible mechanism involved. *(Meat sensitivity spread by ticks linked to heart disease, Science News, June 15, 2018.)*


**IN THIS ISSUE**



***"You don't really understand something until you can explain it to someone else."***

***attributed to various sources including A. Einstein***

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