LONG ISLAND MYCOLOGICAL CLUB

LI SPOREPRINT

Happy Holidays!

1973-2014

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VOLUME 22, NUMBER 4, WINTER, 2014

FINDINGS AFIELD

The photo below depicts a species I am familiar with from

Gomphidius glutinosus

the Pacific Northwest, but which I never thought would be encountered here. *Gomphidius glutinosus* was found and identified by Foray Chief Jacques Brochard on Nov. 14 in Planting Fields Arboretum in association with a grove of Norway Spruce. No microscopic features are needed to identify this entity, with its decurrent smoky gills, glutinous cap and veil, and yellowish base. It is usually considered a northerly tier species, appearing further south in the mountains of Colorado, Arizona and Tennessee. Found only three times in 36 years in the NEMF master list, and then only in Quebec and Maine. It is normally associated with conifers, particularly Spruce, in Europe as well as North America. It is edible and will now be added to the L.I. checklist.

NAMA 2014 Patrice Benson Memorial Foray Eatonville, WA

If there exists a mycological Mecca for North American mushroomers it is the Pacific Northwest, with its temperate rain forests, groves of ancient giants, and tons of Chanterelles and American Matsutake. So our (Peggy and I) expectations for this foray were very high, and for the most part, realized, although not every foray was successful, as the Autumn rains were spotty and had not yet arrived in earnest. Over 300 attendees from all corners of North America, as well as visitors from other countries such as Russia, Finland, Estonia, and Belgium produced a grand mix of dedicated mycophiles. The Hebeloma expert Henry Beker from Belgium, with whom we collected on Long Island, was present and told us that while his European book is in the final stages of publication, research for the North American version is ongoing. In fact, Renée Lebouef of the Montreal club delivered to him a fine collection of Hebeloma from her area. We were also pleased to renew our acquaintance with the Russian botanical artist Sasha Viazmensky, whose mushroom portraits adorn our walls, and who was teaching a watercolor class here. His incomparable works may be viewed at http://www.pelcor.com/mushrooms/SashaMushrooms.html

Sasha and watercolors

Over 460 species were collected by the foray's end, although neither a final number nor a species list is easily accessible. This is an unfortunate absence, and should be remedied by NAMA administrators before the next national foray if the much vaunted voucher program is to be of benefit to the rank and file. NEMF, a much smaller organization, has provided public access to its total cumulative species list dating back to 1976, prominently displayed on its website. That being said, this in no way diminished the joy of sampling new habitats and viewing unfamiliar species, of which there were many. For example, the western version of our Chicken Mushroom, *Laetiporus coniferola,* flourishing on Pine, a novelty to Easterners, is also edible. The blue

(Continued on page 3)

MEMBERSHIP RENEWAL FORM ENCLOSED!

PRESIDENT'S MESSAGE

Yet another year has slipped away. It is mid-December and one would think that the mushroom season is over but there are still oyster mushrooms popping up. Most of them that grow on aspen are over-the-hill but there are still some good ones on maples; I found a nice clump a few days ago. That is a nice seasonal present! See if you can find some for yourself.

As Joel writes in this issue, we went to two regional forays this year. I always grumble that I don't want to go and when we get there, I have a wonderful time. Not only do you meet new and interesting people, and see new locales, you come away with new knowledge. The next one in North Carolina should be great as it is not far and the mountain area is spectacular. I urge you that can to try a foray outside our area. (Another benefit is that you can also add on days to explore the area on your own. For instance, before the Puget Sound Foray we went to Vancouver Island, BC, and saw a lot of beautiful forest areas and visited Victoria.)

By the way, if you are still looking for a gift for someone loves mushrooms, how about a nice mushroom knife, whistle or an up-to-date ID book or mushroom app? Or how about a really expensive gift: a black truffle from Uncle Giuseppe's?

Of course I want to thank all our Board members for their work and cooperation throughout the year….I always say this but you are simply the best!

I wish you all a happy holiday season, good health, and many happy hours of mushroom hunting in 2015.

See you in the Spring!

EDITOR'S NOTE

What are the benefits of being a mushroomer? The obvious one is that by "knowing where the wild things grow" one gains accessibility to a variety of what Charles McIlvaine called "a vegetable luxury that centuries ago graced the dinners of the Caesars." But if one is to avoid the fate of the Emperor Claudius, said to have been poisoned by *Amanita phalloides,* it is necessary to learn the finer points of species identification. This entails mindfulness, that is, concentration on the thing at hand and awareness of details, a habit that needs constant application. This comes with practice and conscious effort, which laziness and a tendency to make snap judgements is the enemy of. The secondary benefit of this effort may be the retention of sharpness of mind and memory, as numerous psychological studies have shown.

Sharpening of the senses is perhaps another asset, inasmuch as sight, touch and smell are all involved in fungal identification, much as the oenophile's palate becomes educated with experience. The necessity of becoming attuned to the elements, the changing seasons and their effects on different habitats and organisms lead to an awareness of the processes and interactions of nature which is immeasurably enriching. And the appreciation of the beauty of all these things increases and does not pall.

MATERIAL FOR THE SPRING, 2015 EDITION SHOULD REACH THE EDITOR BY MARCH 1

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

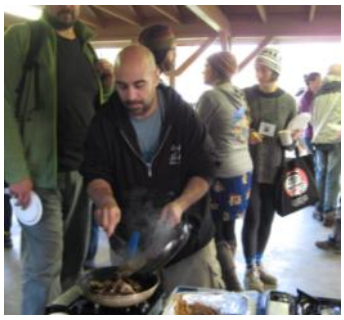
 (All unsigned articles authored by editor.)

NAMA Foray 2014

(Continued from page 1)

staining *Suillus caerulescens,* odd for this genus, is said to have a lemony taste.

And while we're on edibles, it should be mentioned that two types of Chanterelles, both western species, were collected: *Cantharellus formosus* and *Cantharellus roseocanus,* of which the former is preferred for culinary purposes. Both of these, as well as Lobster *(Hypomyces lactifluorum),* Matsutake *(Trichloma magnivalare),* Cauliflower (*Sparrasis radicata*-a Western species) were found in large quantities and were enjoyed at the mycophagy session. This was a magnificent outdoor Seattle type food-fest, where three chefs sliced, sautéed, and fried the above goodies. Matsutake was served sushi style, raw and sliced thin, with a dipping sauce. These were selling for $49 per pound in Seattle markets, and the chef estimated that we had consumed about $700 worth.



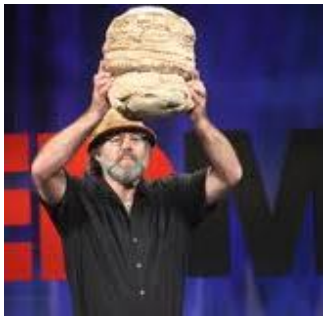
Mycophagy al-fresco

There were a total of about twenty lectures and classes presented, and with such stellar presenters as Tom Volk, Else Vellinga, Tom Bruns, Brandon Matheny, Rytas Vilgalys, etc., it was problematic to choose among them, but we attended as many as we could, so our attendance at forays suffered. To give you a taste of the contents, Else's was entitled "News from the Front Lines of Mycology" and dealt with recent developments in the science, particularly taxonomy, for example the splitting and renaming that recently took place in the *Hygrophoraceae* and *Boletaceae*. To those who wish to do their own bit to advance progress in science she recommends the site notesfromnature.org where volunteers can transcribe scientist's notes from specimen labels so that they can be digitized and made searchable through Mycoportal.

Else Vellinga lectures.

Tom Volk's "Seven Deadly Sins of Fungi" was a bit over the top, with gruesome pictures of ominously named medical mycoses such as *Blastomyces* invading various bodily parts, but had its humorous side as well. P. Brandon Matheny described his ongoing research in the *Inocybaceae* of Australia, where only a handful of Inocybe were previously known , but now boasts a total of 137 fully described species, 101 of them new. For reasons unknown, the spermatic odor so prevalent in European and N.A. species is almost entirely absent here. Rytas Vilgalys, a well known researcher, had been inspired while in High School by our own late Marge Morris; he gave a scholarly overview of environmental genomics that was illuminating but challenging.

Other talks dealt with fungal succession after forest fires (Tom Bruns); toxic metals in edible wild mushrooms (Erica Cline); ascomycete taxonomy and ecology (Michael Beug); mycorrhizal mushrooms of Arctic-Alpine habitat (Cathy Cripps). Many more worthy lectures were available but it was impossible to attend them all; a surfeit of mycological learning.



Paul Stamets & Agarikon

There were two major evening addresses. The first, by Jim Trappe, once again returned us to Australia, a happy hunting ground for mycological taxonomy due to its isolation and unique evolutionary development. Jim's address was entitled, "Why Earth needs Truffles: Interaction of Fungi, Animals, and Trees in an Era of Global Warming." He emphasized the point that there are no keystone species, rather "symbiotic/ interacting clusters of organisms are the keystones." Hypogeous (underground) forms, such as truffles, resist drying and are thus predesigned for survival in the world of global warming. The unique ecology of truffles, which require an animal to consume and spread their spores, leads to a complex interaction among several kingdoms, exemplified in the Pacific NW by the Spotted Owl and Northern Flying Squirrel, and is fascinatingly explored in his (and coauthors) recent book, " Trees, Truffles and Beasts: How Forests Function". (See excerpt, page 4.)At the book signing, we were pleased that this busy researcher recalled that we had furnished him with the first East Coast specimen of *Rhizopogon fuscorubens,* subsequently, he related, also collected in Turkey.

The concluding address by the world renowned mycological innovator, and *Psilocybe* expert Paul Stamets, was a tour-de-force of inexhaustible

(Continued on page 4)

From "Trees, Truffles, and Beasts: How Forests Function", Chris Maser, Andrew W. Claridge, & James M. Trappe, Rutgers Univ. Press, 2010, paperback, 280 pp.

"The northern flying squirrel exerts a dynamic functionally diverse influence within the forest. The complex of effects ranges from the crown of the tree inhabited by the squirrel, which rains fecal pellets to the soil; the pellet's spores, microorganisms, and nutrients work into the soil's root zone, where the fungi form mycorrhizae that absorb nutrients that are conducted into the roots, up the trunk, and into the crown of the tree, perhaps into the squirrel's own nest tree. For all its multifaceted intricacies, this fecal microsystem represents but a tiny glimpse of the total complexity of a forest….

The northern spotted owl lives in the same forest as the flying squirrel and is the squirrel's main predator in northwestern Oregon and western Washington. The flying squirrel, in turn, is associated with large amounts of rotting wood on the floor of the forest (especially large, fallen trees) because that is where truffles fruit most abundantly. Many truffle-producing fungi depend in one way or another on the rotting wood in the soil. The trees depend on the truffle-producing and other mycorrhizal fungi for nutrients and water, while the fungi depend on the trees for energy and other products of photosynthesis. Both trees and fungi benefit from the activities of nitrogen-fixing bacteria, which in turn depend upon fungal exudates for sustenance. Finally, flying squirrels, whose main food is truffles, are the staple prey for the spotted owls, so the owls also depend upon the large, fallen trees rotting on the forest floor, albeit indirectly. Several Australian owls perform a similar function as predators of mycophagists such as the long-nosed bandicoot.

Today, however, species and habitats are being lost because of a lack of sensitivity to how and why they are functionally interconnected. The organisms and their habits must be understood in relation to one another in order to comprehend how a given organism functions. In other words, we must give up concentrating on this or that species as endangered and focus instead on the consequences of endangering the functional relationships that are critical to the integrity of the ecosystems.

If the organism and its function are not understood, how can the results of unexpected changes in the habitat be anticipated when the organism is removed? Its thus questionable whether even a tentative, negative or even neutral value can be rationally assigned to any organism in a forest without sufficient knowledge of the synergistic effects of its various functions. Only when all the pieces are simultaneously taken into account and integrated can the synergistic effects of how a species functions be comprehended."…..

Sustainability flows from the pattern of relationships that have evolved among the various species of trees, truffles, beasts, and their interactions with other functional groups. A culturally oriented landscape– even a very diverse one– that fails to support these coevolved relationships has little chance of being sustainable. For instance, when a road system becomes the centerpiece of a forestry operation (as it is today in most forests), that operation implicitly focuses on fragmenting the forest, because the road locations determine where cutting timber will be scheduled. That focus determines how the populations of indigenous plants and animals, as well as their habitats, are situated across the landscape. And fragmentation of habitats brings more species to the brink of extinction than almost any other human activity.

To counter fragmentation of habitats we must think about, plan for, and consciously move toward connectivity….of habitats, which means focusing first and foremost on maintaining viable systems of corridors that will allow species to move among habitat patches large enough to support them….Only then will we have a chance of crafting viable landscape patterns of sufficient quality to maintain an environment that is biophysically healthy, ecologically adaptable, and thus sustainable over time."

NAMA Foray 2014 ***(Continued from page 3)***

showmanship, scholarship, personal saga, and emotional mycomedical cures, the latter involving his mother, saved by his mycomedicinals from rampant metastatic carcinoma. Whatever the ultimate scientific truth behind it, one could not help but be moved by this dramatic tale. If only half of the claims for Agarikon (*Fomitopsis officinalis)* turn out to be valid, mushrooms would be well on their way to "saving the world".

Next year, the 2015 NAMA foray will be hosted by the Asheville Mushroom Club and take place September 24-27 at the YMCA Blue Ridge Assembly in Black Mountain, North Carolina. We were pleased to learn that Alan Bessette will be the Chief Mycologist. We will be there and hope that many of you will join us. Further details re registration and fees will be provided in the Spring edition of the L.I. Sporeprint.

■**CAULIFLOWERS EAST & WEST:** Recent research using morphology, mating studies and molecular analysis compared Cauliflower Mushrooms (*Sparrasis sp.)* worldwide and established that *Sparrasis crispa* is a species confined to Europe and western Russia. What we have called *S. crispa* in the Northeast has now been shown to be a misnomer, and ours is another species, now named *Sparrasis americana.* The Western species of similar appearance is *Sparrasis radicata,* which is confined to the Pacific Northwest while the more widespread Western species is now called *Sparrasis americana f. arizonica.* Our L.I checklist will now be updated to reflect this. *(Transatlantic disjunction in fleshy fungi. I. The Sparassis crispa complex, K W.Hughes,AR Segovia,R H. Petersen, Mycological Progress,May 2014, Vol 13, Issue 2, p407)*

■**A SINGLE LICHEN SPECIES CONTAINS MULTITUDES:** Less than 1% of the approximately 18,000 known Lichens are basidiomycetes, but the authors of this study believes they are much underrepresented. The species they studied, *Dictyonema glabratum,* was recently shown to be composed of two genera, *Cora* and *Corella,* with a total of 16 species. The present study used a much larger ITS database, and the resultant analysis yielded an amazing 126 suggested species. Usually, such a study concludes that the newly uncovered species are "cryptic", i.e., not recognizable morphologically, but in this case they are clearly shown to be distinctive by appearance, distribution and habitat preference. Their failure to be delineated previously is attributed to their similarity in the dried state (herbarium specimens), stressing the importance of field observations. Also demonstrated was a high level of endemism (local species numbers) which leads the authors to predict a total number of 1,201 (!)species in this complex in South and Central America. (

cking et al, Proceedings Natl Assoc. Science ,July 29, 2014, vol.111 no. 30, p.11091)

■ **HIDDEN BIODIVERSITY:** When biodiversity is addressed, it is usually in the sense of visible aboveground organisms such as birds, mammals, reptiles and insects, that can easily be observed. Omitted are the small belowground organisms that lead a hidden existence. Previous efforts to inventory the soil biota, particularly fungi, have been compilations of disparate and geographically limited studies. Now, an overarching study remedies these deficiencies with a global study of 365 soil samples from all continents except Antarctica. While the plant and animal biogeographic model has it that species diversity is greatest toward the equator, and this does hold true for total fungal richness, with the exception of mycorrhizal fungi, which increase toward the poles, and display their greatest diversity at mid to high northern latitudes. Saprotrophs and parasitical fungi are at their greatest diversity at low latitudes. The authors conclude that "both climate and biogeographic history shape the macroecological patterns of fungi. Comigration with hosts over Pleistocene land bridges... and long-distance dispersal by spores appear to have played important roles in shaping current fungal distribution patterns." *(Global diversity and geography of soil fungi, Leho Tedersoo et al, Science 28 November 2014: Vol. 346 no. 6213)*

(*Compiled by editor from above-cited sources.)*

WELCOME, NEW MEMBERS!

Jen Adler	*Gigi Copeland & Bob Moire*
Maryann & Antonio Bellia	*Farrah Yassi & John Partovi*
Allison & Michael DePerte	*Brad Riegel*
Robert Eipper	*Shelli & Ben Rottman*
Alexandra Grzesik	*Caterina Vacchi-Suzzi*
Amy Hill	*Carlos Vasquez*
Melody & Ron Klein	*Sara Wild*

MUSHROOM DAY OCT 19 2014 PLANTING FIELDS ARBORETUM IN PHOTOS

Setting up

Pièce de résistance

Educating the public

Budding mycophagists

LIMC Members assembled

Members & public mingle

All photos courtesy Gail D'Ambrosio & Bruce Eberle.

BE ON THE LOOKOUT FOR: SOUTHERN PINE BEETLE

Pine Beetle & its pitch tubes.

The most destructive pest of the southern pine forests, the Southern Pine Beetle, after reaching New Jersey in 2001 and destroying 1,000 acres each year, has now been found in the pine barrens of Long Island, where its presence has been confirmed in Wertheim NWR, Connetquot River SP, as well as further east in the Hampton Bays area. The NYS DEC considers the protected 100,000 acre Central Pine Barrens, the sole source of drinking water for Suffolk County, to be seriously threatened.

Warming temperatures are thought to be responsible for this destructive insect's range expansion north and westward. Its tunnels can kill a tree in 2-4 months by disrupting the flow of nutrients in the cambium, just below the bark. Aerial and ground surveys are ongoing, in the hope that all infestations can be located and eliminated, usually by cutting down the infected trees and a ring of seemingly healthy trees around them. (The insect, pictured above, is small, the size of a grain of rice.)

The public is asked to help by reporting insects, their "shotgun patterned holes" in bark, or their pitch tubes (above) by calling DEC at 1-866-640-0652 or emailing foresthealth@dec.ny.gov.

FORAY RESULTS SUMMARY

Christie, Aug 30: Cancelled.

Brookhaven SP, Sept 6: Cancelled.

Southaven CP, Sept 13, Foray & Picnic: A modest showing, compared to last year, with only 23 species, but two of these were new: *Abortiporus biennis (*collected by Carol Capaldo) and *Pholiota flavida (*collected by Bob Pilosov). The picnic, overflowing with fine food and drink, was a great success.

Edgewood Preserve, Sept 20: Cancelled

Abortiporus biennis

Gymnopilus luteofolius

Pholiota flavida

Prosser/Cathedral Pines, Sept 27: Some improvement in conditions, with a total of 47 species, including one new to the list, *Gymnopilus luteofolius,* found by Maria Safioti. Only 3 edibles: Sulphur Shelf, Meadow Mushroom and Laccaria

Muttontown Eques. Oct 4: (Per Jacques) A goodly number of edibles, including Chicken & Hen, Brick Caps, 3 species of Suillus, —and one new species, *Merulius incarnatus,* I.D.'d by Aaron Norarevian.

Southaven CP, Oct 11: (Per Jacques) Brick Caps continued to fruit, as did Suillus, accompanied by several edible Boletes (badius and bicolor) as well as the always welcome *Russula variata.*

Edgewood Preserve, Oct 18: A bonanza of 76 species, with good amounts of edibles including *Boletus projectellus, Leccinum aurantiacum*, Grayling, Yellow Trich, Poplar Oyster, several species of Suillus, and more. The only new species was the parasitic *Hypomyces ochraceous* (anamorph) growing on Lactarius.

Peconic Hills, Oct 25: Bountiful amounts of the target species, *Cortinarius caperatus,* (formerly *Rozites)* were collected, as well as four species of Suillus, of which two, *S. neoalbidipes* and *S. hirtellus* are rarely encountered elsewhere. Bricktops, *Albatrellus*, *B. projectellus* and *Leccinum* rounded out the list of edibles.

Rocky Pt Preserve, Nov 2: We continued to do well, with many edibles although only a total of 43 species. Tricholomas predominated, with the Snowy Foot (*T. niveipes*) as well as *T. portentosum* and *T. flavovirens*. Hygrophorus also made its seasonal appearance, with goodly amounts of *H. hypothejus* and the pure white *H. ponderatus*. *Suillus granulatus* was the predominant Suillus species here.

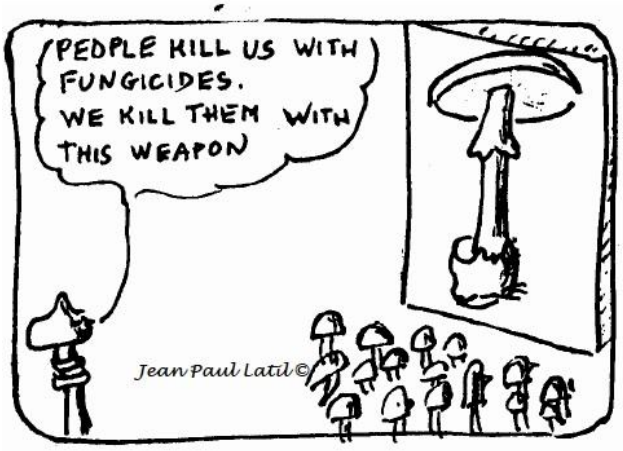
Brookhaven SP, Nov 8: Again, Autumn fruiting genera were in abundance, although the number of species was reduced to 35. Here, *Suillus brevipes* was dominant, and edible species of *Tricholoma* and *Hygrophorus* predominated, along with imposing *Amanita muscaria* and delicate scatterings of *Mycena griseoviridis*. A surprising find was a colorful bunch of *Tricholomopsis rutilans*, a wood dweller, growing under needle duff, no doubt on hidden wood.

Tricholomopsis rutilans

Rocky Pt Preserve, Nov 15: We returned here for the last foray of the season, and were not disappointed, with a total of 45 species, including three new ones: *Cortinarius obtusus*, (identified on sight by Aaron Norarevian) *Tricholoma subaureum,* and *Hygrophorus fuligineus (*found by Maria Safioti). There were 11 species of Tricholoma, three of them edible; *Tricholoma Zelleri (focale)* was collected here for the first time. The edible almond-scented *Hygrophorus amygdalinus,* whose identity we have been tentative about, was also collected, and its identity kindly verified by Alan Bessette.

Hygrophorus ponderatus

Wellwyn Preserve, Nov 22: Cancelled.



IN THIS ISSUE

"The eye sees only what the mind is prepared to comprehend."

Attributed to Henrí Bergson

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MEMBERSHIP RENEWAL FORM ENCLOSED!