LONG ISLAND MYCOLOGICAL CLUB

http://limyco.org

L.I. SPOREPRINT

1973-2018

Available in full color on our website

VOLUME 26, NUMBER 1, SPRING, 2018

Rhodocybe tugrulii: First North American record

Among the pink-spored Entolomataceae, *Rhodocybe* is distinguished by spores that in end view have 6-12 facets, the surface irregularly ornamented by pustules; and by a lack of clamp connections. It is a small genus, with only 168 species (the present one included) listed in Mycobank, with a similar number in Index Fungorum if one discounts the recent controversial revisions that have allotted many to other genera, particularly Clitopilus. With so few species, the majority of serious collectors are unfamiliar with this genus, which has few distinctive macrocharacters. Moreover, in contrast to other members of the Entolomataceae, the sporeprint color may be grayish or white[2].

***Rhodocybe tugrulii* en situ**

The present collection was found on Aug. 12, 2017 by the author's wife Margaret, in an undisturbed pine barrens habitat in Riverhead, Long Island, NY in association with *Pinus rigida.* Initially their identification as to genus was problematical due to this lack of unique macrocharacters, and a sparse spore production (not productive of a sporeprint), with characteristics such as sporal cyanophily attributable to several different genera. Therefore, DNA sequencing was undertaken, (performed by AlvaLabs of Oviedo, Spain) with the completely surprising result of a 99% match with a recently described species found in Turkey and Estonia : *Rhodocybe tugrulii* Vizzini, Seslı, T.J. Baroni, Antonín & I. Saar 2016.

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THE SEASON'S BOUNTY

We had a good season thanks to slightly above normal rainfall, at least on eastern Long Island, where 50.35 inches were recorded at Upton's Brookhaven National Lab., about 1.5 inches above average. This compares favorably with the 2015 and 2016 totals, both about 39". In contrast, Islip recorded only 43 inches, 3 below normal, while NYC reached 45 inches, 5" below their annual average. The high geographic variability on L.I. requires constant vigilance in order to hold our forays in the most productive habitats and is the reason for frequent foray site changes. Beneficially, the rainfall pattern was fairly equally distributed throughout our collecting season, only November being significantly lower at 2.26".

Mushroom Day 2018

No Black Morels, but the usual few scattered Yellow Morels were reported here, although those who ventured upstate participated in what was a very productive season there. Spring Oysters, our mainstay early in the season, deserted our traditional site, but did materialize in another closely monitored site, so those who ventured out to a late afternoon "Flash Foray" were well rewarded, not only with *Pleurotus populinus* but also with early fruiting *Leccinum*, which we must now call *vulpinum* rather than *aurantiacum,* in order to be au courant, at least for the time being.

June can be, and usually is, a very slow month, so Jacques scheduled only one foray that month; however, it was quite productive, with 30 total species, high for that time and place. During the summer, the

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PRESIDENT'S MESSAGE

So, spring is officially here, although winter stubbornly persists. My daffodils are up and some are blooming but you wouldn't know it as they are mostly covered with snow. However, I know as soon as the snow melts, they will pop up again as if nothing happened. Thusly I like to think that our fungi, while mostly not seen right now, are just waiting to pop up when the ground awakens from its winter sleep. We can wait and hope.

Our annual board meeting was held in early March and not much has changed. We have some nice forays coming up and if conditions are good we hope to have some additional Flash Forays as well. We are going to have new updated patches made up for all members as the old ones have run out. The attractive patches Bob Cresko designed will remain essentially the same but will read: "Est. 1973." This is our 45th anniversary!

As usual, we will have our picnic in September and when the time comes, I will ask for more help in running it.

I also stated that I would like to give up my position as President this year (again) as 16 years are enough. It is time for some new blood and fresh ideas for the club. Voting will take place at the annual picnic.

If you haven't started to look through your mushroom books to reacquaint yourself with the mushrooms we should know, now is a good time. A complete LI species list may be accessed on the Mycoportal website: http://mycoportal.org/portal/checklists/checklist.php?cl=79&pid=8 which can be displayed as images.

I wish you all a fun season and hope to see you all along the trails.

EDITOR'S NOTE

This Spring brings us many mycology oriented travel opportunities which are outlined on pages 6 and 7 of this issue. We encourage our members to broaden their collecting experience by attending one or more of these, particularly in other parts of the country, which have a different mycoflora. Meeting like minded people is both educational and enjoyable, and the lectures by professional and advanced amateur mycologists are always enlightening. If you do attend one, please consider writing a short account of your experience for publication in this newsletter, which needs some new voices.

LIMC has been participating in the NA Mycoflora Project, which seeks to document all species by specimens and DNA sequencing, since 2014. We will be introducing some steps for collectors to take on our forays in order for our members to more fully participate in this project. Firstly, we encourage everyone to photograph their finds before picking them, particularly puzzling or novel species, and a smart phone, which records GPS data is the best choice to do so. We now have collection slips, which are sequentially numbered, upon which we will record associated data, such as the collector's name, the habitat type and substrate, and associated vegetation. This will certainly enhance our knowledge as well.

MATERIAL FOR THE SUMMER 2018 EDITION SHOULD REACH THE EDITOR BY JUNE 1ST.

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

(All unsigned articles authored by editor.)

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NEW SPECIES ADDED 2018

SPECIES	YEAR COLLECTED	COLLECTOR (other than editor)
Agrocybe arvalis	2008	
Agrocybe dura		
Amanita cf. franchetii		
Amanita cf. russuloides		
Amanita rhacopus nom prov		
Amanita elongata		
Boletus alutaceus		
Boletus patrioticus	2016	Anatoli Zaytsev
Chromosera cyanophylla		Paul Tomko
Clavaria rubicundula		
Clavulina rugosa		Hayley Grote
Coniophora puteana		Aaron Norarevian
Galerina vitiiformis		
Geastrum coronatum		Peggy
Geoglossum fallax		Maria Saffioti
Hygrocybe (Cuphophyllus) virginea		
Inocybe rimosoides (I. Curreyi removed)		
Lactarius frustratus		
Lentaria patouillardi	2008	
(I.D.'d by Ron Petersen)		
Leptonia subserrulata		Anthony Sama
Psathyrella lithocarpi		
Psilocybe phyllogena		
Radulomyces sp.	2016	
Ramaria flava		
Ramaria fennica		Alexandra Grzesik
Retiboletus griseus var. fuscus	2016	
Rhodocybe tugrulii 1st N.A. record!		Peggy
Tricholoma acre		
Tulostoma berkeleyi		
Tulostoma simulans		Peggy
Xerocomus hypoxanthus		

Total L.I. species to date: 1,021

Tulostoma simulans

Amanita rhacopus n. p.

Amanita cf. franchetii

Clavaria rugosa

Radulomyces sp.

Cuphophyllus virginea

Boletus alutaceus

Ramaria flava

Inocybe rimosoides

SEASONS BOUNTY *(Continued from page 1)*

few cancellations that occurred were made up for with several Flash Forays at West Hills and Blydenburgh, a marked improvement for what is normally a dry and unproductive month here. Some species, such as Honeys (*Armillaria mellea),* Chicken (*Laetiporus sulphureus)*, and Black Trumpet (*Craterellus*) made an early, brief appearance and then were seen no more. This also occurred with Hens *(Grifola frondosa)* in September.

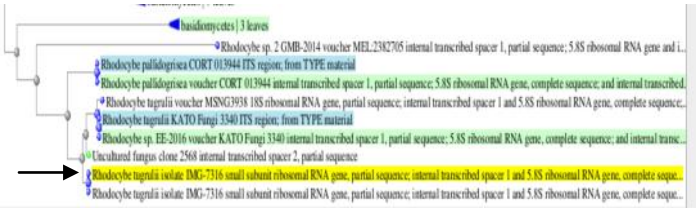
Early Autumn fruitings were depressed due to lower than usual September rainfall, as shown by the Edgewood Preserve foray producing only 39 species compared to an average of over 50. October was dry to begin with but compensated by heavy late monthly rainfall that averaged over 6" but varied widely in Suffolk. This caused our Oct 21 foray in Peconic Hills to be cancelled, but we were able to resurrect it in early November, when good numbers of Gypsies *(Cortinarius caperatus)* were collected, in addition to *Leccinum, Boletus appendiculatus*, and 3 species of *Suillus*. Following a freeze, the latter part of November showed a diminished number of species, but collecting remained good, the expected species of Tricholoma and Hygrophorus making an appearance.

The season came to an end with our Welwyn foray, when wood dwellers abounded, notably Brick Caps, but Oysters were conspicuous by their absence. This year we are off to a good start, with rain, or its equivalent in snow, occurring in a weekly pattern, and if that persists, we can expect another good season.

Rhodocybe tugrulii *(Cont'd from p.1)*

However, even a 99% "barcode" match is not always probative of specific identity, which requires both macroscopic and microscopic confirmation.

Firstly, to address the sequence data: regions sequenced were small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence. The BLAST generated distance tree of results (below) shows our specimen nestled directly below the branch on which the type specimen of *Rhodocybe tugrulii* is located. Interestingly, it is closest to *R. pallidogrisea,* known only from Tasmania.



The physical characteristics are also very similar, indeed striking, photographs of both being essentially indistinguishable. Vizzini et al describe the fruit body as small (10-40 mm.), clitocyboid, the pileus convex, broadly depressed, pale gray to beige, surface slightly pitted or ribbed, dry. margin irregular and incurved; this fits our specimens perfectly (see photos). The gills are concolorous with pileus, "typically decurrent and subdistant", with 30-35 full length gills and 2-5 lamellulae. This is readily applicable to our collection, as can be seen in the "studio" photo, except for the gills which were subdecurrent. Our stipes were also concolorous and with mycelial threads and a widened base, but were a bit more robust, measuring 3-7 mm wide compared to 2-5 mm. Sporeprint color was not mentioned for the type, so perhaps none could be obtained, as was the case with our Long Island collection.

Except for spore morphology, there is little microscopically unique to Rhodocybe, and bright field microscopy does not lend well itself to distinguish, much less photograph, the pertinent details, which require SEM, scanning electron microscopy to clearly be delineated. Nevertheless, a second look at the spores does uncover congruent characters. They were subglobose to broadly ellipsoid, 4-7 X 4-6 µm, (4.8-7.2 X 4-5.9 in the type) with a prominent apiculus, minutely angular in polar view, some with a few angles in profile view; occasionally obscurely bumpy. No hymenophoral cystidea seen. Basidia four-spored.

Rhodocybe tugrulii

Although the collections in Turkey and Estonia were from mountainous areas as contrasted with our Atlantic coastal plains habitat, all were associated with Pine, gregariously growing in pine duff. This disjunct distribution raises questions as to the origin of the Long Island collection. If physical introduction is considered of low probability, the alterna-

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GLEANINGS.. from the research literature

■ **Burn-site Morels in Eastern N.A:** Although a common enough phenomenon in the western states to cause Morel hunters there to intensely watch the occurrence of forest fires, it is rare in the East, with only two past records. (These latter cannot be positively verified, although probably in the Elata group, as no fungarium specimens were deposited.) The present study examines two more recent instances, in Michigan in 2012 and Tennessee in 2106. As in the west, these recent post– fire Morel fruitings took place in conifer dominant sites. DNA sequencing established the identity of these Elata-clade morels as *Morchella exuberans,* a species known from Europe and China, although first formally described from California. The analysis of 13 transcontinental collections suggests that the eastern NA specimens are more closely related to those from Europe. (*First report of the post-fire morel Morchella exuberans in eastern North America. A.N Miller et al, Mycologia, Vol. 109, 2017, Iss. 5)*

■ **Mushrooms and Beetles:** We have all noted, mostly in dismay, the presence of beetles in the mushrooms we collect. This study puts this relationship to use to shed light on mid-Cretaceous (about 100 million years ago) mushrooms. In particular, five marasmioid fossilized gilled mushrooms were found in Burmese amber, which like all previous amber specimens were tiny, about 4 mm., and in association with five species of mycophagous beetles, which have specialized mouth parts for this purpose. These beetles (known as oxyporine rove beetles) were larger than the mushrooms, and as the known feeding habit of related modern forms is to burrow within mushrooms larger than themselves, the authors believe it is unlikely that they fed upon these tiny mushrooms. Instead, like the modern *Oxyporus* beetles such as *O. rufipennis* which is fond of burrowing into large fleshy mushrooms such as *Pleurotus populinus,* they also fed upon large-sized fruiting bodies such as Boletes, Agaricales and Polypores. Molecular clock analysis has established the mean age of the Agaricomycetes (mushroom forming fungi) as ~ 250 million years, so that this mushroom-beetle association was probably well established by the Cretaceous. *(Mycophagous rove beetles highlight diverse mushrooms in the Cretaceous. Chenyang Cai et al, Nature Communications, 8, online 16 March 2017.)*

■ **That Mushroom smells like??** While previous research has attributed the difficulty of naming odors to weak or disrupted connections between the olfactory and language areas of the brain, the present study focused on cultural practices, comparing two Malay groups, one of hunter-gatherers (the Semaq Beri) and the other (Semelai) agriculturalist. The two groups were compared for their ease in naming (known as codability) both colors and odors. The hunter-gatherers named colors and odors with equal ease while the farmers showed lower codability for smells. Moreover, the former had a higher codability for odors, for which they used abstract terms (e.g.,*musty)* rather than source-based terms (e.g., *banana)* which the latter used. In other words, the agriculturalists found odors hard to name while the hunter gatherers do so with ease. The fact that they both live in the same rainforest habitat and speak similar languages rules out both the influence of language and environment as contributory. factors. It would be interesting to see an experiment that would try to teach these odor distinctions to the agriculturalists to establish whether they were capable of learning them, as novice mushroomers eventually learn to name the aromas associated with different species. *(Hunter-Gatherer olfaction is Special.,Asifa Majid & Nicole Kruspe, Current Biology, 28, Feb. 5, 2018, pp. 409-413.)*

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

WELCOME, NEW MEMBERS!

Dominique Cipriani **Veronica & Thierry Duclay** **Lea Lovell & William Falcheck**

Rosemary & Eric Koepele **Michael & Susan Lovell** **Gina & James Lufker**

Alix Michel **Christopher & Bettina Proce** **Ed & Kelly Rogers**

Nella Stranieri **Edward & Mellisa Zareh**

18th Annual Gary Lincoff Mushroom Foray
September 15, 2018 | North Park, Pennsylvania

The Western Pennsylvania Mushroom Club will hold what is now the memorial 18th Annual Gary Lincoff Mushroom Foray, due to the sad death of the eponymous author earlier this year. This one-day event takes place in the Rose Barn, Pearce Mill Rd., in North Park, McCandless Township. Driving instructions are on the website. On Saturday activities include walks, presentations, auction, sales, table walk,and a mushroom feast. Guest mycologists Taylor Lockwood, photographer, and others tba.. The $55 fee for non-members includes membership but does not include lodging, for which you must make your own arrangements

Details and prices are posted on the club website: http://wpamushroomclub.org/lincoff-foray/ For more information, contact the Foray Chair, Barbara DeRiso: 412-252-2594 Lincoff-Foray@wpamushroomclub.org

2018 NEMF
42nd Annual Samuel Ristich Foray
July 26-29, Geneseo, NY.

Accommodations are in the SUNY campus dorms 3 & 4 bedroom suites with shared bathrrom (no a/c), at a cost of $380 double (Single, $425). There are commuter options available, but local motels are filling up fast. Faculty is headed by Kathie Hodge, but other personnel have not been publicized at this time, but we expect most of the regulars to be present.

For more info or to register access:: http://nemf.org/index.html

2018 NAMA REGIONAL FORAY
JUNE 28– JULY 1
CANTON, MISSISSIPPI

This is the first Regional Foray in Mississippi and will be held in the Gray Center where all rooms are air conditioned and accessible, with private bath. The 750 acre grounds have an extensive network of trails. The $250 price covers lodging, meals and programs. Attendance is limited to 60 NAMA members (with 52 spots remaining open) but non-members can join upon registration. Chief Mycologist will be Dr .Juan Luis Mata, Univ. of S. Alabama. Programs include a nightly presentation and social.

For more information or to register access: http://www.namyco.org/

2018 Annual Wildacres Regional Foray
Sept 27–30,
Wildacres, N. Carolina

Held at Wildacres Retreat, a conference center on 1600 acres in the Blue Ridge Mountains, the foray is limited to 40 NAMA members. Priced at $260 per person, double occupancy (no single rooms) for food and (3 nights) lodging.

Chief Mycologist is Brandon Matheny, Univ. of Tenn.; other faculty to be announced. .

The relaxed, convivial ambiance of Wildacres is unsurpassed. Early registration is advised. An application form may be downloaded by accessing https://www.namyco.org/wildacres_foray.php

For more information and to register, contact Glenda O'Neal by email glendakoneal@yahoo.com or by phone at 423-863-2742.

COMA's
40th Clark Rogerson Foray
Aug 31-Sept 4

This annual event will be held at the completely refurbished Camp Hemlocks in Hebron, Ct. where faculty will include Roy Halling, John Plischke III and others. Housing is in hotel style rooms, air conditioned and with en-suite bathroom. All meals included. Attendees may register for 1-3 nights or simply as day visitors for either or both of the 2 full days, Saturday or Sunday.

This year's rates and registration details will shortly be available on the Connecticut-Westchester Mycological Association website with registration open by early May. Access: comafungi.org/and click on "Special Events".

The 2018 NAMA Annual Foray will be held Oct. 11-14 in Salem Oregon at the Macleay Conference Center, but no further information is currently available. Registration is scheduled to open in early May, so check the NAMA website then if you are interested.

EAGLE HILL INSTITUTE MYCOLOGY WORKSHOPS STEUBEN, MAINE

June 24-30 Lichens & Lichen Ecology David Richardson & Mark Seaward $545

Suitable for beginners, this seminar emphasizes both fieldwork and laboratory studies, focusing on identification of specimens using books, keys and chemical tests. The emphasis will be on macrolichens although crustose lichens will be included. Taught by two eminent and widely published professors of biology...

July 29-Aug 4 Mushroom Identification for New Mycophiles: Foraging for Edible and Medicinal Mushrooms- $545 Greg A. Marley and Michaeline Mulvey– A field identification course of the macrofungi focusing on the skills needed to identify common mushrooms using field characteristics, keys and guides while also addressing preparation of edible fungi for the table.

Aug 19-25 Mushroom Microscopy: An Exploration of the Intricate Microscopic World of Mushrooms- $545. David Porter and Michaeline Mulvey Learn to use a microscope to explore the strange details of filamentous hyphae; to photograph observations and to become familiar with the terminology of microscopic features to enhance your ability to identify fungi.

Sept 28-30 Fall Maine Mushrooms David Porter and Michaeline Mulvey $150 This weekend workshop is an introduction to the Fall mushrooms of the downeast coast with collecting excursions. It will cover the methods and resources of mushroom identification using keys, field guides and online resources. Toxicity, edibility, cooking and preservation will be addressed as well.

(Other Natural History week long seminars range from Birding, Mosses, Medicinal Plants, Moths & Butterflies, Creative Nature Writing etc. Unless otherwise noted rates are $495 for the seminar; $195 for accommodations (double); and $278 for the meal plan. Weekend workshop accommodations $30 per nite, meal plan $90. Access http://www.eaglehill.us/ for more detailed information and to apply online.)

Mushroom Festival in Oaxaca Mexico
July 17-24

Crooked Trails, a non-profit travel organization, supportive of local communities, has scheduled a tour that is a mash-up of mycology, natural history and culture. Taking place in the heavily pine forested Sierra Norte, at an altitude of 10,000 feet centered on the local Feria Regional de Hongos Silvestres (Wild Mushroom Festival), an annual event. After a foray with local villagers, there are seminars on mycology and mushroom cookery sessions. Following this, there is participation in the local *Guelaguetza* indigenous celebration and parade. This culminates in the Mezcal festival, a tasting of the local liquor.

This 7 day, 6 night tour is priced at $1,895 from Oaxaca City, with most meals included. For further details, or to make an inquiry access http://www.crookedtrails.org/itinerary/mexico-wild-mushroom-festival-oaxaca/ (Mention offer code Myco2018 for $100 discount)

Rhodocybe tugrulii: ***(Continued from page 4)***

tives are vicariance or long-distance dispersal, a question which in most instances remains incompletely resolved.

Thanks to Vladimir Antonín, Moravian Museum, Dept of Botany, Czech Republic for providing pdf of the Phytotaxa paper. And special thanks to Tim Baroni, SUNY, Cortland, NY for sharing his expertise and responding so fully to my inquiries.

References:

Baroni, T.J., (1981) A revision of the genus *Rhodocybe* Maire (Agaricales). *Beihefte Zur Nova Hedwigia 67*

Baroni, T.J. & Horak E. (1994) Entolomataceae in North America III: New Taxa, New Combinations and Notes on Species of Rhodocybe, Mycologia, Vol. 86, No. 1 (Jan. - Feb.), pp. 138-145.

Kluting, K.L., Baroni, T.J., & Bergemann, S.E. (2014) Toward a stable classification of genera within the Entolomataceae: a phylogenetic re-evaluation of the Rhodocybe-Clitopilus clade Kerri L. Kluting, Timothy J. Baroni & Sarah E. Bergemann. Mycologia, 106(6), , pp. 1127–1142.

GARY LINCOFF OCT. 3, 1942– MARCH 16, 2018

We are saddened to report that one of the eminences of amateur mycology, Gary Lincoff, noted author, teacher, lecturer, humorist, and guiding light of the New York Mycological Society, passed away on March 16 at the age of 75 due to a stroke. The NYMS is planning a memorial event in the near future, which we will inform our members about.

IN THIS ISSUE

(Membership list to be updated online.)

"...There is an extraordinary pleasure in pure observation..."
Charles Darwin, Correspondence, 1846

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