MushRumors

Newsletter of the Northwest Mushroomers Association

Vol. 32, No. 3 October 2021



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Woot! Woot!

This Thursday, October 14, NMA is having our first in-person general meeting in quite a while! From 7 PM to 9 PM, Brit Bunyard of the mycology journal *Fungi* speaks on "Amanitas of the Pacific Northwest." The meeting is at the Squalicum Yacht Club and is open to fully vaccinated club members only (please bring some evidence of vaccination for the folks checking at the door—thank you). In the clubhouse, masks are required for everyone aside from the speakers. Do not bring snacks to share; we will not be serving coffee/tea/etc or snacks at this meeting either.

Our speaker, Britt Bunyard, PhD, is the founder, publisher, and editor-in-chief of Fungi. Britt has worked academically as a mycologist his entire career, teaching a number of university courses and writing scientifically for many research journals and popular science magazines. He has served as an editor for mycological and entomological research journals, and mushroom guide books. A popular evangelizer on all things fungal, Britt has been featured on NPR's *All Things Considered*, PBS's *NOVA* and *Wisconsin Foodie* television programs. He's been interviewed or quoted in *Discover* magazine, *The Atlantic, Vox, Vogue, Forbes, Saveur, Eating Well, Hobby Farm, Women's World*, and other magazines and newspapers.

Continued next page

Woot! Woot! continued

Britt also serves as executive director of the Telluride Mushroom Festival. He has authored several books, including Amanitas of North America (2020, The FUNGI Press), The Beginner's Guide to Mushrooms (2021, Quarry Books), Mushrooms and Macrofungi of Ohio and Midwestern States (2012, The Ohio State University Press), and the forthcoming The Secret Life of Fungi (Princeton University Press) due out this winter.

In 2021 Britt was awarded the Gary Lincoff Award "For Contributions to Amateur Mycology," by the North American Mycological Association—NAMA's most prestigious honor for American mycologists.

There has been much arguing back and forth in the media about how much of a problem being with other vaccinated people is, regarding the spread of Delta. This article may help calm you if worry about such has become a source of anxiety for you: https:// www.theatlantic.com/ideas/archive/2021/09/the-vaccinatedarent-just-as-likely-to-spread-covid/620161/

The the season is in full swing. So we should have a good foray in the Hundred Acre Woods on October 16th, too. Check your emails for details about it.

> Cheers, Mark Dr. Mark D. Johnson, NMA President

Fall fun forest fungal field forays

Fairhaven Foray (Oct. 16)

Please note that NMA forays are limited to vaccinated members only. This is to protect our hosts and all our members. Please bring your masks for close-up interactions around the food and specimen tables. Our meet up is 10 AM at the Fairhaven Park picnic shelter (look for the shelter in the trees at the top of the hill), 107 Chuckanut Dr. North, Bellingham. Sign the hold-harmless form and the register when you arrive at the shelter; sign out when you return from foraging. The foray runs from 10:30 AM to 1 PM, followed by an hour for ID and potluck back at the shelter. Bring a dish to share (if your dishes include mushrooms, find the list of acceptable species here) and your own dining utensils. Permission to participate in the foray is at the discretion of the foray hosts, Christine Roberts and Buck McAdoo. See you there!

Dilly Foray (Nov. 13)

This year we're holding our traditional, annual, end of season Dilly Foray at Bowman Bay, Deception State Park, on Saturday, November 13. Margaret and Claude Dilly are long-time, beloved mentors for our club. Please note that to protect our hosts and all our members, NMA forays are limited to vaccinated members only. Please bring your masks around the food and specimen tables. This event is always tremendous fun and a real treat. Look for a detailed email from NMA closer to the week of the event.



A walk in the woods

Christine Roberts

The recent rain has brought mushrooms out in force, some rarely seen in town. I wandered back from a midday class across the local park and noticed something interesting alongside the small stream that looked a bit like maybe a Bolete. Cognizant of not being seen, I snuck down through the shrubbery and found a delectable, perfect, young Boletus edulis, whoopee! Dinner sorted, I went home happy after thrashing around a bit to see if there might be another lurking. It appeared more of them had turned up around the Western campus so keep a lookout for firm, very round, brownish capped things with a fat round stipe.

That evening, Martha called me and invited me to join her and her friend on a foray in the Mount Baker area. Next morning we drove up to the selected hiking trailhead and piled out with a big basket and lots of hope. Along the way we'd stopped at a hopeful looking spot and found a bunch of Russula murrilli, as well as a couple of Phaeolepiota aurea and a host of orange Ramaria before Martha and Maureen dragged me back to the car to continue our quest for edibles before I got too carried away! From the parking lot we hiked up (and up, and up) finding plenty of interesting and colourful plants, fungi, birds, and scenery to keep us well entertained. We managed to fill the basket with lots of tasty Gypsy mushrooms (Cortinarius



[aka Rozites] caperatus), three Boletus mirabilis, a lovely green Russula heterophylla gp. and another mild, green, yellow-spored Russula (as yet unidentified) while well above 5000' where some mushrooms out in open areas had been frozen already and bits of snow lay on the ground. All round, a rewarding day out in the woods in good company—what more could anyone wish for?



A very good year for gypsies. When young and firm, they are quite edible. Photo by Erin Moore



Inaugural post-Covid Northwest Mushroomers foray. Photos by Mark Johnson

Together again at the Rockport Foray

Mark Johnson

Do you remember November? November 2019 that is. That was when our last club foray was held. Yeah, before the pandemic. It has been a long strange trip since then. Now, 21 months later, in September of 2021, we had our next in-person gathering of the club at Rockport State Park, up Highway 20, just past Concrete, Washington. It was a great mix of old timers and new members. Over 30 people showed up, signed out, forayed, and all but one signed back in (They were contacted by phone when the foray was over and were safe and sound). A handful of new members went with Fred Rhoades who did a "walk and talk" intro to fungi with them. We had an abundance of skilled identifiers at the foray.

Some of the questionable sample specimens went home went home with some of our identifiers to establish identification through texts and keys. Christine Roberts gave a run down on the finds to the whole foray group at the shelter we used as home base. See the final species list at the end of this write up. Not bad for the end of a super dry summer!





The (fully vaccinated and masked) rangers at the park were quite happy to have us there for our foray, and hung out conversing with some of us for quite a while. The park no longer allows camping since it was determined in 2007 that it was no longer completely safe for such. It was determined by a survey that the tops of many of the trees in the designated camping area could come down, disastrously to any campers down below. So it has been a day use park since then.

Old-growth forests are not all "old trees" as many people think. In a natural forest some trees get blown down in storms or tip over in a flood event, or etc. When this happens, intense sunlight penetrates to the previously well-shaded understory and new growth abounds. Shade returns when new trees grow up to fill the gap. Thus an "old growth" forest is marked by many different ages of trees, not just old ones. If you find yourself in a "forest" where all the trees appear to be about the same age, you are probably in a sylviculture plantation.

Rockport State Park is located at the confluence of the Sauk River and the Skagit River, near where peoples of the Skagit tribe had long prospered on abundant salmon in a village of longhouses. About a hundred years ago the land we forayed for mushrooms was owned by Sound Timber Company. According to one of the rangers, the company cut down one huge tree, but then surveyed the property and did a cost analysis of how they would get the logs out of the area and decided it was not economically worthwhile. In 1935, they sold the property to the Washington State Department of Natural Resources (DNR) for \$1 "and other considerations," which the ranger speculated may have included other state lands that had trees more easily accessible. Washington State Parks acquired the property from DNR in 1961. And we are so happy that they did! This location could become a standard place for our annual September forays.





Photos by Mark Johnson



Cantharellus roseocanus. Photo by Buck McAdoo



Mycena haematopus. Photo by Buck McAdoo



Russula mordax. Photo by Buck McAdoo



Rockport species photos this page by Jack Johnson







Clockwise from top: Pholiota aurivella, Atheniella aurantiidisca, Hemimycena orbilia, Amanita gemmata, detail of the volva of A. gemmata.



Mushroom foray species list from Rockport State Park, 9-11-21

Truncocolumella citrina

Ganoderma oregonense

Ganoderma applanatum

Fomitopsis cajanderi

Fomitopsis mounceae

Fomitopsis ochracea

Stereum sp.

Phlebia tremellosa (also at FS Rd 12)

Phaeolus schweinitzii

Picipes badius

Suillus caerulescens

Suillus lakei

Xerocomellus diffractus

Cantharellus roseocanus

Lycoperdon umbrinum

Scleroderma cepa (from Deming)

Agrocybe sp.

Amanita pachycolea gp

Amanita gemmata gp

Collybiopsis peronata (aka wood woolly foot)

Crepidotus applanatus var. globigera

Entoloma rhodopolium

Gliophorus psittacinus gp

Hygrophoropsis aurantiaca

Hypholoma fasciculare

Laccaria laccata gp.

Leptonia formosa

Leucoagaricus rubrotinctus gp

Leucocoprinus brebissonii

Lyophyllum sp.

Mycena haematopus

Mycena galopus

Mycena pura (also at FS Rd 12)

Pluteus cervinus gp.

Pluteus atromarginatus

Pluteus exilis (incl white form)

Pluteus rangifer

Psathyrella piluliformis

Pseudosperma sororium (used to be Inocybe sororia)

Pseudoarmillariella ectypoides

Russula albonigra

Russula brevipes gp

(including some parasitized by *Hypomyces lactifluorum*)

Russula mordax

Russula xerampelina

Russula zelleri gp.

Tapinella atrotomentosa

Xeromphalina campanella

Xeromphalina campenelloides

Xeromphalina fulvipes

Things only at FS Rd 12

Crepidotus applanatus

Cyclocybe erebia Kuehneromyces lignicola

Mycena maculata

Mycena amicta

Mycena filopes?

Mycena sp.

Pholiota aurivella

Pleurotus dryinus

Psathyrella sp.

Arcyria cinerea (slime mold)



Pluteus rangifer, another rarity found at Rockport State Park. Photo by Buck McAdoo

Gymnopus aquosus (Bulliard ex Fries) Antonin & Noordeloos

The first known collection of Gymnopus aquosus for the Pacific Northwest and perhaps for all of North America



Gymnopus aquosus. Buck McAdoo

It was one of those crisp spring days you want to be playing reggae on your tape deck as you head for a mushroom foray. The foray was on June 15, 2013, at the Silver Fir Campground up the Mt. Baker Highway. It was first come first served at the covered picnic tables. I pulled in around 8 AM to make sure we got the spot, and there, plump in the middle of the parking area was a giant RV. A grizzled gray haired man with cropped whiskers was puttering around with a cup of coffee. Probably a Marine veteran. This would be fun. I began to wonder why we were even out here. June is a traditionally poor month for mushrooming in the Pacific Northwest. In fact, it is so poor that our mushroom club doesn't hold forays in June anymore.

I went over and began chatting with the fellow. I told him about our proposed foray. He gave me a queer little look and started to chuckle. He was from the Snohomish Club in Everett but had heard about our foray and wanted to foray with different people for a change. He had spent the night here to make sure we had the place!

And so the day unfolded. The faithful began to trickle in. The early spring Nolaneas made it onto the tables, and a large *Gyromitra esculenta* provoked a big discussion on edibility. Then I noticed a smallish fungus I had never seen before. A sort of grayish tan cap with a brick colored dot at the disc. I asked around who had found it. There was a shuffling of feet around the table, and finally Sehome High School biology teacher Sue Blethen confessed. She had found all three specimens in wet hemlock muck. I sensed it was Collybioid, the group I work on with the Pacific Northwest Key Council. I snapped the photo you see here. Then I had it dehydrated back in my office and tried keying it out. I got nowhere. I placed it in a box with the other Collybioids and there it sat for the next eight years.

Here are my notes on this collection:

Caps: 1-2 cm wide, convex with slightly inrolled margins. Glabrous, the margins finely striate. Pale brick color at disc, then a grayish flesh color with a pale gray band at the margin.

Gills: Adnate, crowded, buff. Edges entire (not sawtoothed). Three tiers of lamellulae.

Stipe: $2\frac{1}{2}-4\frac{1}{2}$ cm long and 2–3 mm thick. Smooth, wiry, minutely hollow. Buff at apex becoming ochre below, then ochre-foxy at base. Base expanded into a small bulb. Context white. Flattened flesh colored mycelium also present.

Odor and taste: Mild.

Spore deposit: White, inamyloid.

Habitat: Three in wet hemlock muck at the Silver Fir Campground on June 15, 2013.

Eight years later I examined this microscopically:

Spores: Ellipsoid to subdacryoid in profile; $6-7.3 \times 2.9-3.6$ microns. Q = 2.10

Basidia: Clavate with tiny sterigmata, 4-spored. 20–25 x 5.5–7 microns.

Cheilocystidia: Spheropedunculate to irregularly clavate, a few with branches of clavate cystidia. 23–30 x 7–8 microns.

Pleurocystidia: None seen.

Clamps: In all tissues.

Gill trama: Of parallel hyphae 5–10 microns wide. Some with encrusted walls.

Pileipellis: Of branched and knobbed interwoven hyphae 4–9 microns wide. Some with coarsely encrusted walls.

Stipitipellis: Of vertically arranged hyphae at 3.5–10.5 microns wide. All hyphae encrusted or with granules.

Meanwhile I have always wanted to update my key on the Collybioids for the Key Council. Dr. Ian Gibson of Victoria, B.C., had updated almost all the other keys, so I needed to step up to the plate.

Luckily, the opportunity to sequence some of these obscure collections finally arrived. FunDis agreed to sequence thirty of them for free (they usually cost \$30 per species). This was in the spring of 2021. I dug into my Collybioid box and selected Sue's find for one of the thirty. The result? It was the first known collection of Gymnopus aquosus for the Pacific Northwest and perhaps for all of North America. It was acknowledged as rare in Europe but widespread. Here is what Geoffrey Kibby, editor of Field Mycology, had to say about it: "I am particularly pleased to be able to present a photograph of this uncommon species since it is one I can remember looking for in my earliest days of collecting some 40 years ago, and eventually finding . . . to my great excitement." He has only seen it once or twice since then.

Looking over European descriptions I was gratified to note they all mentioned the flesh colored to salmon colored mycelium and the expanded basal bulb. The cheilocystidia were also similar, namely clavate versus the usual gnarly coralloid and digitate ones you encounter in this genus. The main differences were the brick colored dot at the cap disc and the foxy ochre hue at the stem base. European stems are generally pale ochre to cream color or pinkish ochre. However, the spore shape and sizes were a fine fit, as were the abundance of clamps. I can only surmise that perhaps the location in hemlock muck may have contributed to these color changes.

And there are look-alikes. Those mentioned in the literature were as follows: Gymnopus dryophilus, ubiquitous in North America, lacks the swollen stem base, the pinkish mycelium, and the clavate cheilocystidia. It is also less hygrophanous than G. aquosus, whose caps fade from pale ochre to almost white. Gymnopus erythropus, which we have found on Lummi Island and at Trout Lake near the Columbia Gorge, differs by its brick red stipes. Gymnopus ocior, an eastern European species that suddenly showed up at the entrance to the ferry terminal in Fairhaven differs by its yellowish gills and thin yellow band at the cap margin. Gymnopus hybridus, not known from these parts, differs by having widely separated gills of a cinnamon brown color and ochre-brown caps. And finally, Gymnopus earleae, a species first discovered in Alabama that has now proliferated to a whole complex in the Pacific Northwest, has a smaller stature and a hairy or strigose stem base.

In Europe, Gymnopus aquosus is found more often from April through June than in the fall. It is saprophytic, usually found in wet humus under hardwoods or in sphagnum bogs. Hurtado and Borgarino find it in swamps. Aquosus in Latin means "full of water." The inference being you won't find it in dry locations.

As for edibility there's not a lot out there. Count Bruno Cetto, under an earlier name of Collybia dryophila var. oedipus, noted "commestibile." John Ramsbottom wrote "edible." Beyond that, nothing. You are on your own with this one.

So there you have it . . . Gymnopus aquosus, a species long suspected of being here, and thanks to Sue's find and the subsequent sequencing, that speculation can finally be put to rest.

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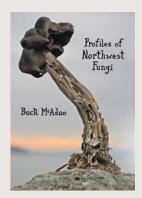
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Profiles of Northwest Fungi

Hundreds of species and forty years of anecdotes and research. A wealth of information about your favorite and not-so-favorite funga that you won't want to miss! Author Buck McAdoo is a founding member of Northwest Mushroomers Association.



"You know you have the mushroom bug when you sail by a tiny island, and all you can think of is maybe there is a little brown mushroom over there indigenous to that rock alone."

—Buck McAdoo

A separate, add-on key to the book is also available. Order your copy online at gldesignpub.com Or contact distrib@gldesignpub.com

MUSHROOMS FROM MEMBERS

Lummi Island beach find: Chicken of the sea



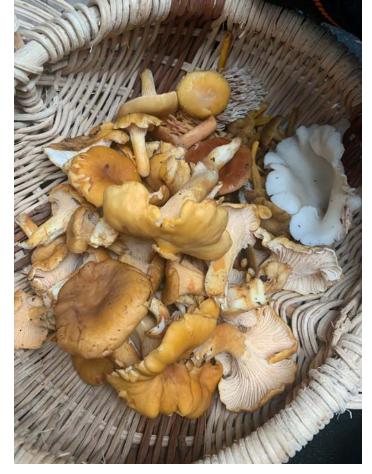
The rains have been a blessing. It has brought out chicken of the woods fruiting on an old drift log on our private neighborhood beach. That log has been there for the 20 years I've lived here on Lummi Island and never produced fungi before.

I believe this is a Douglas fir log (not cedar). I have eaten COW from other logs in our woods that most likely were fir with no issues. I've attached photos of these beautiful just-hatched chickens with seaweed in front of them. —Nina Laden



Top-grade buttons of American matsutake, Tricholoma magnivelare, westside Cascades. Photo by Allen Matsumoto





Chanterelles shine out amid the day's finds. Photo by Kenneth Wong



Coprinus comatus, shaggy manes (top view)—heading artfully to ink. Photo by Martha Dyck

Positively Polyozellus marymargaretae

Tom Semple's find at Rainy Pass turned out to be Polyozellus marymargaretae. It is one of three PNW species in this genus. In the past, the name *Polyozellus multiplex* was misapplied to the three of them, but, *P. multiplex* does not occur in western North America. You can find further information in MycoMatch or other resources online. —Dick Morrison and Buck McAdoo

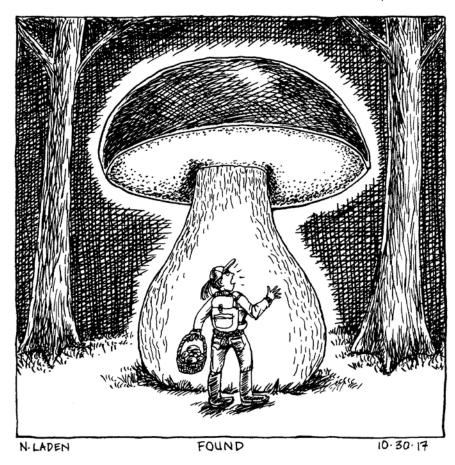












Cantharellus formosus, left, and Boletus mirabilis, below, found in early October, Mt. Baker-Snoqualmie National Forest. Photos by Erin Moore





Fall mushroom dishes

Two online recipes curated for you by Jack Waytz, gourmand and NMA vice president.



Pasta with white wine and porcini mushroom sauce

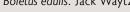
https://spoonuniversity.com/recipe/pasta-recipe-white-wine-and-porcinimushroom-sauce



Creamy spinach spätzle casserole with chanterelles

https://www.yummly.com/recipe/Creamy-Spinach-Spatzle-Casserole-with-Chanterelles-2285712







Canterellus subalbidus. Jack Waytz

Stereo photo pairs: Agaricus campestris and Mycena citrinomarginata

Fred Rhoades

On the next two pages, you'll see stereo sets of photos for Agaricus campestris, the meadow mushroom, and Mycena citrinomarginata. The top photo for each species is arranged with right image on the left and left on the right. With a R/L set, one crosses their eyes to see the stereo.

The lower stereo photo is arranged with the left image on the left

and the right on the right. With a L/R set, you let your eyes drift apart to see the stereo.

Some people see the effect better one way; some the other. What do you and see? Please email fmrhoades (a) comcast.net to let us know the effect on your eyes, and which works best for you, top or bottom: R/L or L/R.



Agaricus campestris (R/L). Fred Rhoades



Agaricus campestris (L/R). Fred Rhoades



Mycena citrinomarginata (R/L). Fred Rhoades

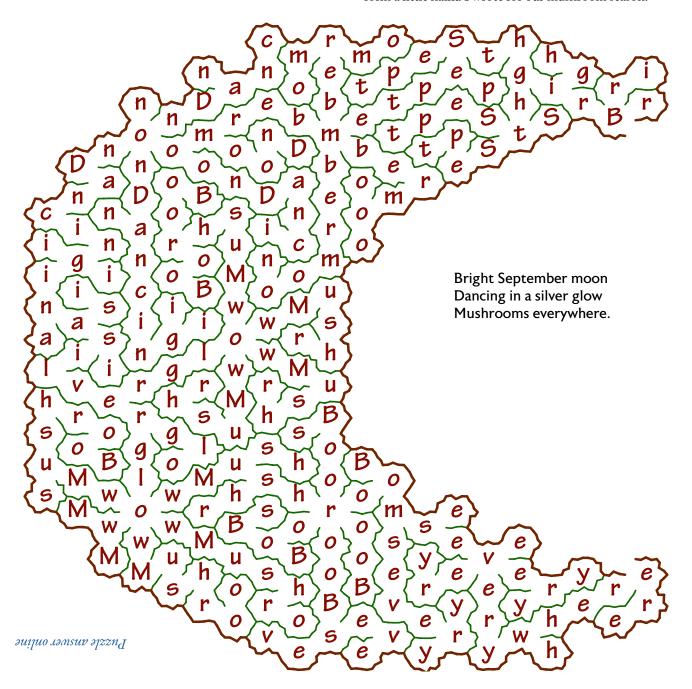


Mycena citrinomarginata (L/R). Fred Rhoades

MazePhrase: Fall haiku

Eduard Schwan(Songs)

As fall crinkles the leaves, here's a little "MazePhrase" puzzle for you to solve. Trace the path through the moon from the "in" arrow to the "out" arrow. Collect the letters along the way to form a little haiku I wrote for our mushroom season.





Northwest Mushroomers Association promotes the understanding and appreciation of mushrooms, furthering the study of fungi, their identification, natural history, ecology, and conservation. We serve mushroom enthusiasts in northwestern Washington State, including Whatcom, Skagit, and Island Counties.

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