

MushRumors

The Newsletter of the Northwest Mushroomers Association

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March - June, 2013

2013 Mushroom Season Begins with a Bang! Morels in the San Juan Islands and Naturals Early on the Mainland Are a Harbinger of Things to Come!!

With the first signs of the 2013 spring mushroom season already presenting themselves in far more interesting variety than just *Verpa bohemica*, a spring season of rare magnitude was unfolding on the eastern slopes of the North Cascades. Wildfires born out of the severe drought conditions of last summer and fall in eastern Washington had us studying fire perimeters on the State Department of Forestry maps, wondering wistfully if other conditions would line up favorably for what could be a 100-year flood of morel mushrooms, when the snows receded and soil temperatures increased in the strengthening sun of the spring. By the time the Northwest Mushroomers Association gathered for our annual Morel Madness trip, the players came into full motion, as hoped for rains began to soak the burns in late May, to continue, along with far cooler temperatures than normal, throughout the entire month of June. The results were breathtaking.

Photo by Jack Waytz



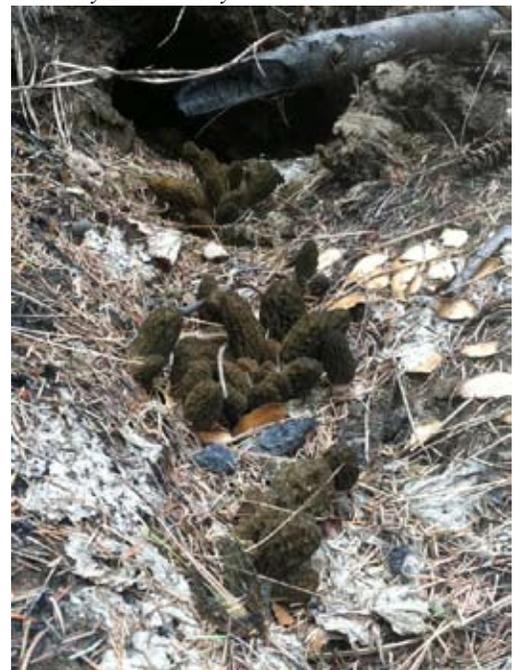
Lovlies from the islands

fruited first where the snow melt came early, and spring rains doused the warming soil, and, as is usually the case, the early bird got the worm.

On the Memorial Day weekend, NMA member Dan Viney, met up with Greg Ott, long time member of the PSMS, to take the treacherous climb through the wilds up to the Sears Creek fire. Jen Green and I chose the now famous fire on Basalt Peak. Although only twenty miles separate these two 2012 blazes, conditions in these two areas were markedly different. At the Basalt Peak fire, I found that there was still traces of the heavy winter snow pack in the lower, shaded spots, and that not a lot of

As is the case for the various mountains and their associated valleys on the western slopes of the Cascades, each mountain has its own peculiar weather throughout the winter months. Some mountains, and their associated valleys, have more snow than others, some have more rain and warmer temperatures in the spring than others. Some of the burns had more southerly exposed faces, some more northerly, etc... Consequently, mushrooms

Photo by Daniel Viney



Morels in bunches, like bananas!

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It was a happy Mother's Day on Sunday, especially for mom Amy, whose daughter Sarah served her the first off the grill of Fien's delicious morel omelettes.

And Fien's cooking was no mean feat, since the power was out in the whole camp, for the second night in a row, and she and Migo did the cooking on propane camp stoves on the back porch. Other than power outages,

Photo by Vince Biciunas



The madness begins...

we had an uneventful and fun time, finding plenty of morels too! Amy's son Casey, with dad Terry, turned out to be the champion mushroomer, finding not only the most morels of all, but also the most other varieties of spring mushrooms, including the prolific *Calosypha fulgens*, and the more-rare *Pleurotus*.

Bill P and James had fun tromping in the woods, and for the potluck, brought a fruit platter and delicious ribs with BBQ sauce. Deborah and John found their first four morels ever, and besides being inspired, contributed a fabulous Caesar salad with prawns for the pot luck.

Martha and Jim took great joy in finding morels as well. Nancy found a 'motherlode' or two. As did I, hiking with Nancy.

Pat and Mike proved to be champion hikers and enthusiastic helpers in the kitchen, as well as showing us all how to get to the White River waterfalls a few miles further up the road.

Jairul hunted on Saturday with our Key Council friends. Their group was also meeting at Tall Timber Ranch, and invited us to join them for Friday's dinner, which we did, and hear their after-dinner presentations both

nights, which we also enjoyed. Our Fred is currently serving as the President of Key Council, and their membership and participants included Margaret, Christine, Buck and Bob.

Back at our Schulz House, Heather got a bit of her university homework done, while hanging out with her dad and new step-mom Beth, our Morel Madness hosts. Larry and Beth, just married this March, were toasted for their one year anniversary of meeting at last year's Morel Madness!

Thanks again to Margaret and Claude for organizing the registrations and dealings with the camp staff, and thanks to Larry and Beth for serving as our official hosts, and taking

Photo by Vince Biciunas



care of the last of the clean-up. Thanks to Fien, not only for her

delicious curried chicken salad and stir-fried fiddleheads at the potluck, but also for the wonderful morel sauce on the Sunday morning omelettes. Thanks to Migo too, for helping her with the multiple skillets, and to Terry and Nancy and all who kept the water boiling for the drip coffee.

We were lucky enough to welcome a new member to our club, China, who found us on the web on Thursday evening, paid for the registration fee on paypal, and then came with a big salad for the potluck and readiness to sleep 'anywhere'. We did have a spare bed, so it all worked out great.

Having the Key Council meeting at the main hall was an extra educational bonus for us and we were grateful to be invited to hear their presentations, see their mushroom collections, and visit with old friends, many of whom we've heard at past NMA meetings as guest speakers.

Photo by Vince Biciunas



The revellers already telling tall mushroom tales

The weather was great, the mountains and rivers were spectacular, the morels were just coming up fresh, and the company was fun. Let's do it again!

Harbinger of morels, Continued from page 1

rain had fallen here. After a good amount of exploration up the slopes, we discovered only four small morels on a sunny berm close to the road. In stark contrast, Dan and Greg hit a significant fruiting of burn morels, widespread up and down the burned ridgelines, where much more rain had fallen, so much that there was water running in rivulets through the burned area.

Photo by Daniel Viney



Luscious 'greens' near a charred ponderosa pine

It was the following weekend, that Dan, Jen, and I teamed up and took the furious 3 1/2 mile climb from the Sears Creek Road into the wilderness that belongs to the cougars and grizzly bears. It took the better part of two

hours to traverse the forest, which was a shambles of fallen trees due to an epic blizzard in December, up a nearly 20% grade, to where the rim of the burn could be seen. Suddenly, the feeling of agony that I was experiencing through the climb lifted. From where I was standing, I had a good view of the draw above me, and I could see literally thousands of beautiful morels all the way up the slope!!

The mosquitos that day were every bit as epic as the mushrooms. In 47 years of wandering the forests of this world, I haven't ever encountered mosquitos of this magnitude.

Emerging finally at the road's edge, I looked like the 'Elephant Man' and thought that I might need a blood transfusion.

Backing up in time a bit: before we had started our desperate ascent to morel Shangri-

La, a quick search of the lower areas revealed a very nice beginning to what would prove to be the best fruiting of *Boletus rex-veris* in several years, so we had over 20 pounds of porcinis before we even got started on the fabled morel hunt.

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Photo by Daniel Viney



The beach head for a monster spring king season

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The Northwest Mushroomers Association meets on the second Thursday of the months April, May, and June and September, October, and November, from 7 - 9 pm.

Meeting location is the Bellingham Public Library. We will inform you in advance of any changes of venue. Membership dues are \$15 for individuals and families and the special price of \$10 for students. Please make checks payable to NMA and send to: membership, at the mailing address above.

Bruce Armstrong is our field trip coordinator. Field trips are scheduled for the Saturday after each meeting.

MushRumors is published every other month (roughly). Deadlines for submissions are the 15th of odd-numbered months. (Of course, exceptions will be made in the event of fungal finds of unusual import!)

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MushRumors c/o Jack Waytz

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The three of us were there for about 2 hours and 15 minutes, and then we had the very difficult task of humping nearly 100 pounds of prime condition burn morels back down that ominous grade; a problem that, I must admit, I hope have not had for the last time in my life.

About a week before Memorial Day, after charting the weather conditions on the eastern side of the mountains, I thought it prudent to give David Arora a call and tell him of my suspicions of what was about to happen up on these charred mountains. On my recommendation, he traveled up, and stayed for 10 days, with new mushroom friends Norbert and Sherri Schneider. They had the good fortune of being centrally located to practically all of the burns, and their collective harvests reflected that. In 7 days of hunting, they collectively found nearly 500 pounds of morels, and well over 100 pounds of boletes! Needless to say, David was very happy that he made the trip.

We teamed up a couple of times, with good results, which might have been very much better at the Entiat fire but by this time, the cat was out of the bag, and the commercial guys were up there with a vengeance. Upon our arrival, we observed, much to our chagrin, two five-man teams of young, strong Hispanic men with 5 racks of morels harnessed to their backs each, coming down off of the mountain. Their collective haul was 1000 pounds! So, in and up we went, finding what they had left behind, which made for a hard days climb to the heights of the burn.

As the days passed and June gave way to July, the initial flush of burn morel species yielded to what are now being called *Morchella tomentosa*, or what are commonly referred to as the 'grays'. According to many, including David Arora, these are the tastiest of all of the morels. Hard for me to say, to me, they are all heavenly.

Three weeks into the Great Fruiting of 2013, I had observed that another two days of significant rains had come to the Lake Wenatchee area, and called Sherri to suggest that they take another look around for boletes in our same old secret location, as these same conditions yielded the most epic fruiting that I had ever seen in 2007. Two days later, on that following Monday, they made yet another pilgrimage from

Wenatchee south, and in 90 minutes of picking, they amassed 70 pounds of the normally elusive spring king! I had thought about joining them, and was dejected about missing out, when Sherrie informed me that they had only gone a half mile into our area, which meant that there was another half mile which they had not covered. Off I went yet again, well before the dawn over the Stevens Pass, and north at the Coles Corner, and out again with 70 pounds of boletes of my own (pictured in photo above), which I carried the mile out with dogged determination, some wrapped in my shirt, as I had no more room in my basket, nor my buckets and didn't mind all that much, succumbing to the attack mosquitos on the way out.

Among other things to be ecstatic about in the wake of such proliferation of morel mushrooms that we are normally happy to find a pound of on a good day's hunt, this 'megafruiting' as described by Steve Trudell at the talk he gave to our club, comes with a sense of timing. Along with



Joy Chen, myself, Jen Green, and David Arora at the 59er Diner after a hard days hunt

Photo by Jack Waytz



All of these splendid boletes in one square mile!

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Photo by Daniel Viney



Big 'reds' thriving in the saturated charcoal

all of the known genera of mushrooms, this group is in the process of being scrutinized by American mycologist Kuo, and French mycologist Clauetz, who are working together to study the DNA codes for the known species of morels. The paper that they are coauthoring will change nearly all of the names of species that we know, and redesignate what once were one or two species, into several.

Photo by Buck McAdoo



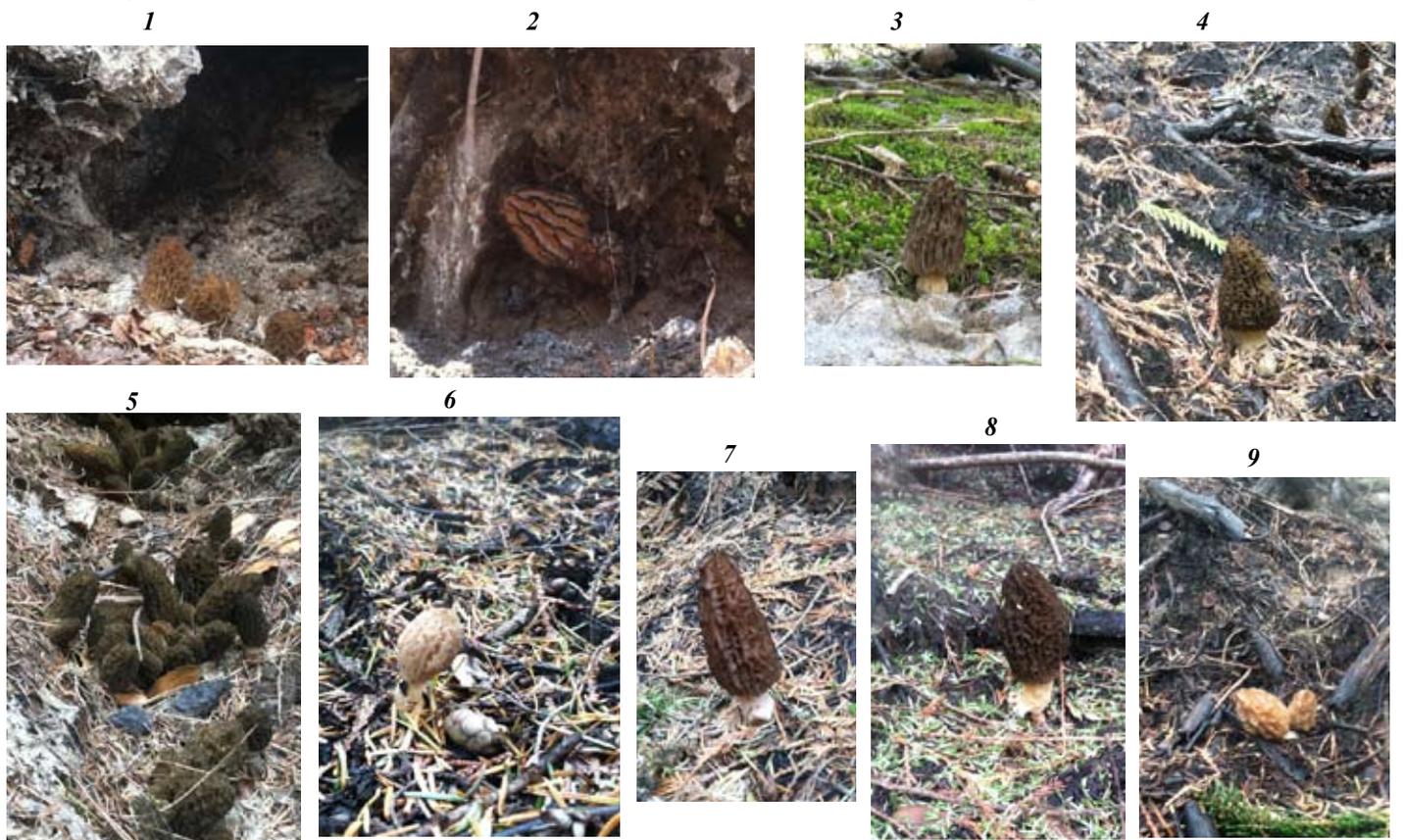
One of the newly named naturals

This is still a work in progress, so even the 'new' names that some of the species in the genus *Morchella* have been assigned, such as *Morchella anthracophila*, pictured here, may be changed yet again.

Among many fascinating aspects of this group of mushrooms, it now seems that all of the 'burn morels' are different species, than all of the 'naturals', which occur in the same areas. It remains to be seen, exactly how these mushrooms will be able to be distinguished from one another, short of using a DNA decoder.

Further observations made while clambering up the burned mountain sides include morphological peculiarities in the morels being consistent with certain other habitat factors, such as, what trees, burned or otherwise, were nearest to the mushrooms, proximity to water, intensity of diffuse or direct sunlight, and even angles of slope, all seemed to have an influence on what form and color the morels took. It was easiest for our purposes to classify them broadly by color, since there was a distinct underlying tone to them when held up to light. We observed 'reds' (pictures 4 and 8), which were the largest of the burn morels, 'greens', (picture 5), 'whites' (pictures 6 and 9), and 'pinks' (pictures 1 and 2 on this page, and 13 on page 7). Note the distinct differences between the clumps in pictures 1 and 5. The morel in picture 2 is different from all of the others, and we referred to it as the 'passion fruit morel', after its shape. To further muddy the waters, picture 3 is a natural in the mix, of which we found several, in green 'islands, that didn't burn within the fire.

The many faces of the morel mushroom at 2013 burn sites in eastern Washington



10



11



12



13



14



Where cedar trees had been burned and some green branches had survived the blaze, the morels there were a translucent gray color, and were taller and thinner, with narrower and more vertical ridges, compared to other burn site morels that we encountered (picture 10). The mushroom in picture 11 is one of the reds that is different than the others, note the very even, vertically aligned ridges, and the mushroom pictured in number 13 is a pink, but very different from the one in picture 2. The gray morel in picture 12 from Sherri Schneider's collection, is actually named *Morchella tomentosa* the gray, or burn morel, ironically, since all of these pictured here

were found within the burns. Notably, these morels always grow 90 degrees to the slope that they occupy. Then there is the one pictured in number 14. I ran across many of these in the high, dry parts of the Entiat fire. Are there really different species here, or is form and color influenced by subtleties within the burn habitat? For now, we must wait and see what Kuo and Clauetz have to say when their paper is finally published. Photos 1 through 11 furnished by Daniel Viney, photo 12 by Sherri Schneider, and photos 13 and 14 by Jack Waytz

Some Notable Hauls From the Great Morel Hunt of 2013!

Photo by Sherri Schneider



One of Sherri's epic picks from the Entiat fire. No need for dehydrators in Wenatchee!

Photo by Jack Waytz



The big take from the Sears Creek excursion

Photo by David Arora



Jen's nice bucket full from the Basalt Peak blaze

The Blewit Pass Complex-Okanagen - Wenatchee National Forest photo



From out of this carnage, comes wonders of the mushroom kingdom

Kicked-Up Stuffed Morels

Recipe courtesy Emeril Lagasse, 2001 Show: The Essence of Emeril Episode: Funky Spring Vegetables

Ingredients:

- 1 cup lump crabmeat
- 3 tablespoons mayonnaise
- 1 1/2 tablespoons heavy cream
- 2 tablespoons chopped chives
- 1 egg yolk
- 2 tablespoons finely grated Parmesan
- 1 1/2 tablespoons dry bread crumbs
- Salt and white pepper
- 12 to 16 large morels, cleaned
- 8 tablespoons butter
- 2 teaspoons minced garlic
- 1 tablespoon chopped parsley

Photo by Jack Waytz



Yes, that's my pan! Some of my best stuffers, sauteing in garlic butter.

Directions:

Preheat the oven to 375 degrees F.

In a mixing bowl combine crabmeat, mayonnaise, heavy cream, chopped chives, egg yolk, Parmesan, and bread crumbs and stir to mix well. Season with salt and pepper and stuff each morel with the crabmeat filling.

Heat an oven-proof skillet or saute pan and melt 4 tablespoons of the butter. Transfer the stuffed morels to the skillet and quickly saute, turning on all sides to ensure even browning. Add remaining butter and garlic and continue to cook for 1 minute. Transfer pan to the oven and bake for 8 minutes, or until heated through and morels are golden brown. Remove from the oven, sprinkle with the chopped parsley and serve immediately, with some of the garlic butter drizzled over the top.

Climbing the Heights for the Divine Pleasure of the Gray Morel *By Sherri Schneider*

One must certainly acknowledge, that upon the steepest slope, out in the hottest burn, deep down in the chalkiest dirt where the grey morels grow, is where divine providence is found. And grow they do. And grow and grow and grow. They seem to get even bigger when you're at the bottom of the slope looking up into the fecund crotch of the charcoal encrusted mountains.

Photo by Sherri Schneider



Sherri can hardly wait to bite into the grays.

Grey morels are not so elusive, they're just selective. Like a rich man cruising for the right titillation on a Saturday night, grey morels can afford to be picky. The greys don't show up for the crowds...they follow the burn morels only after massive wetness, fertile heat and the full moon of summer solstice, when most amateurs have given up, their egos bruised, jeans filthy, ankles swollen and rimmed in soot, scratches pulsing from the switch marks of Jehovah's scorched cat-o-nine-tails.

But those Greys are out there and they want to be found. They need to be found...and stuffed. Their massive girth sucked on, their juices running deliciously down the back of the throat of those found worthy and patient. Their engorgement must be the 'stuff' of legend, filled with profound richness, luxury and decadence.

Photo by Sherri Schneider



Greys hiding out in ponderosa pine needles

Ingredients such as heavy cream, mushroom duxelles, salty butter, briny crab meat, silky mashed potatoes and sizzling bacon are good places to start. With all these possibilities and combinations, it boils down to a matter of taste and there is no longer any sense of right or wrong. The Grey doesn't hog the spotlight. Rather, it shares its own unique richness with other flavor explosions in perfect harmony. The Grey is passionate about the simple classics like bacon and eggs for breakfast on the morning after, or a tangy goat cheese melting with toasted pine nuts and snipped chives. The Grey loves to be sizzled in olive oil, embraced in crispy Panko, fried hot to allow the creamy, cheesy fillings to melt and merge. The Grey also

Photo by Sherri Schneider



Norbert with 'the catch'.

loves to be stuffed with its brother, the Spring King, in the richest of creamy Duxelles spiked with fresh, briny crab meat. It's almost sexual.

In the end though, it's all about that grey umami perfection -- that moment when your mouth is filled with fungal benevolence and ecstasy, sautéed only in butter, sprinkled only with crusty sea salt. You don't want it to end, you don't want to swallow, but you must.

Bring Me Your Mushroom Encounters!

If you find mushrooms, whether unexpectedly or on a planned foray, snap a couple of digital photos and put together a little story about them. I'd be happy to feature you in our internationally renowned newsletter, *MushRumors*

Mushroom of the Month

Ampulloclitocybe clavipes (Pers. ex Fr.) Redhead, Lutzoni, Moncalvo & Vilgalys By Buck McAdoo

Do not be alarmed. This is just the latest genus for the cosmopolitan, attractive, club-footed species known in all your popular guides as *Clitocybe clavipes*. Almost every fall season here in the Pacific northwest, we run into large fruitings of this brown-capped Clitocyboid species with a consistently clavate base. We have all seen it, but have not tried to eat it due to possible confusion with other brown capped Clitocybes in the area. I had always heard that it was a good edible species. When I spotted it for sale in a Maryland market in June, 2009 for \$43 a pound (the same price as fresh morels), I felt it was time to take a bite. They were being sold under the name of 'Club Foot', and they looked like stout little brown hour glasses with white decurrent gills. One of the problems has been the difference in stature between east coast and west coast specimens. Typical *Ampulloclitocybe clavipes* has been depicted as a large, fleshy mushroom with a thick, clavate stem base that can get up to 4 cm. wide.

Photo by Buck McAdoo



Photo by Buck McAdoo



The second photo here depicts the normal version from Vermont. Our west coast version is a lot slimmer. So much so that it won't key out in Bigelow's monograph entitled *North American Species of Clitocybe, Part I*. Because option number 10 gives us a choice between 'Pileus and stipe large, fleshy' or 'Basidiocarp not with combination of characters above', one ends up on the rocks further in the key. It is difficult for any key to absorb all the idiosyncrasies of one species within a larger group. At the end of his description Bigelow takes care of the problem by writing, 'Many collections made in the Pacific northwestern states have a slenderer stature and are more apt to have a fruity odor than the specimens found in the midwest and

northeast. The other features of the basidiocarp are identical.' One sentence can make a world of difference, and where it can be found in the key can be even more of a factor in tracking down the species.

Caps are usually described as 2-9 cm wide, gray-brown to ochre-brown, sometimes with an olive tinge. They are plane and broadly umbonate becoming shallowly depressed in age. Cap margins are incurved but not inrolled. There is often a whitish band at the margin. The caps are neither striate nor hygrophanous. They are smooth, greasy to subviscid in wet weather and felty in dry. The context is thicker and spongy at disc. The entire fruiting body can become saturated with water in rainy weather and be squeezed like a sponge. The gills are long decurrent, often forked and intervenose, white at first, then yellowish buff in age. Stems are 3 ½ to 6 ½ cm long and up to 1 cm thick at the apex and 4 cm wide at the clavate base. They are same color as the cap but a bit paler and fibrillose streaked. The base is often covered with white tomentum. The odor is often fruity like grape bubblegum or cherry bark. Kuyper, Vellinga, and Noordeloos wrote that the odor is like iris. The taste is mild or slightly acidulous when saturated with water, and the spores white in deposit. *Ampulloclitocybe clavipes* is a highly successful species. It shows up around the world in the temperate zone, preferring humid-rich acid soils, and can be found with conifers and deciduous trees. They seem to prefer Douglas fir and hemlock in our area. In other parts of the world they have been reported with white pine, larch, and spruce. In southern Michigan, Kauffman found them with oak and maple. Hesler reported them with beech in the Smokies. Laessoe and Lincoff report it with birch. Roody called them saprobic, capable of living off of decaying matter. Miller pointed out that they were very long-lived and do not decay readily. Guzman has reported them from Mexico, and Hongo has found them in Japan.

The flavor is excellent, sort of like the Gypsy mushroom, but when fried in butter, our west coast version

has the consistency of a potato chip. I have hesitated for years to try them because there appeared to be two different versions in the local woods: one with a greasy ochre brown cap, the other with a matte gray-brown cap and stipe. Jack Waytz and I noticed the difference between several fruitings in the Stimpson Nature Reserve in the fall of 2010. I cooked up a few of the ochre brown-capped specimens with no ill effects. This was the cap texture most similar to descriptions in the popular guides. I then examined the darker capped specimens under the microscope. Spores were broadly ellipsoid, usually with one oil drop, and measured 4.3-5.5 x 7.2-8.5 microns. They were smooth-walled under 100x power, but are apparently endowed with roughened walls under the electron microscope. Basidia were slenderly clavate, measuring 5-6.1 x 30-38.2 microns. Clamps were present in the pileipellis and stiptipellis. The gill trama were of intertwined hyphae 2.9-14.3 microns wide. The pileipellis was also of intertwined hyphae 2.9-5.4 microns thick. The only cystidia seen were filiform in shape and emerged from a squash mount of a cross section of a gill. All of this was in sync with other microscopic data accrued from the literature. It now appeared that the specimens with subviscid to greasy caps were the same as those with mat to subvelutinous caps.

Several authors point out that the species is very susceptible to humidity, subviscid in damp weather and matted velutinous in dry. In really wet conditions, the caps can have water spots.

All of this variation has raised a number of synonyms over time. Some of these have been *Clitocybe carnosior* (Peck) Sacc., *Clitocybe media* Peck, *Clitocybe squamulosoides* (Orton) Harmaja, and *Clitocybe comitalis* (Persoon) Kummer. According to Hard, *Clitocybe media* was so named because it was deemed halfway between *A. clavipes* and *Clitocybe nebularis*.

And of course, *Ampulloclitocybe clavipes* has a full retinue of look-alikes. Here are the ones gleaned from the literature in no particular order:

Clitocybe nebularis – The cloud mushroom is generally a more robust species, often has an odor of skunk cabbage, has yellowish spores, and pale gray-brown caps often with watery spots.

Clitocybe subclavipes – Also found in the northwest, this species has paler caps and stems that are almost equal. Cap colors are alutaceous to pinkish-tan. The taste is slightly farinaceous.

Rhodocollybia butyracea var. *asema* – This taxon can have a similar stem base but the gills are notched.

Ampulloclitocybe avellaneoalba – A larger Clitocyboid fungus with darker brown caps and usually with lined or ridged margins. Spores are larger and subfusoid in shape. It also differs by fruiting on wood. This may be the easiest mushroom to confuse with *Ampulloclitocybe clavipes*. If you eat one by mistake, you might survive. Dr. Stuntz wrote, ‘there have been reports of people eating it, but not a large enough number of them to establish its edibility beyond doubt.’

Clitocybe costata – A European species with pip shaped, dacryoid spores and fluted, undulating cap margins. Stems differ by being coated with white longitudinal fibrils.

Pseudoclitocybe cyathiformis – Has smooth dark brown caps that quickly fade to a pale gray-brown (as seen here), white, amyloid spores, strongly fibrillose stems, and funnel-shaped caps when aged.

Clitocybe leopardina – A species from southern California and Oregon with equal stems and watery spots on the vinaceous- brown cap surface. Gills described as pinkish-buff.

Clitocybe gibba – Has a thinner, grayish-tan cap that can develop flesh colored hues, and spores that are tear shaped in profile.

Clitocybe gibba var. *occidentalis* – Reported from Alaska and California, this variety has gray-brown caps that become yellowish to pinkish-buff in age. Stems are equal or taper at the base and are found with copious white to yellowish mycelium.

Clitocybe subditopoda – Another brown *Clitocybe* from the Pacific northwest with equal stems, strong farinaceous odor, and finely striate cap margins when young.

Clitocybe alexandri – A large species with pale brown caps that become dark brown in age, often areolate (with cracks) at the disc. Stems are white to sordid cream color, bases heavily tomentose. The odor is mild.

Clitocybe squamulosa – Caps are brown to tawny-ochre and minutely scaly (squamose) at the disc. Overall, they are matted fibrillose when young.

Clitocybe squamulosa var. *sicca* – Reported from Washington by Bigelow, caps vary from brown to cinnamon-buff with undulate or crenulate- ridged margins. Caps are dry and matted fibrillose, gills buff to pale pinkish-

buff. Taste is disagreeable to slightly farinaceous.

Clitocybe subalpina – Another brown-capped species found in Washington. It has lobed and lined margins and fruits in dense clusters near conifers.

With so many look-alikes out there, why would anyone risk eating *Ampulloclitocybe clavipes* despite the appetizing sound of the name? If you peruse the literature, you can't help noticing that the warnings and accolades are about even. On the negative side, if you eat this species with alcohol, even if you drank some wine two days prior to ingestion, you get a reaction similar to coprine poisoning. This is the type of poisoning associated with mixing alcohol with *Coprinopsis atramentarius*. The effects might even be worse. Symptoms include chest pain, diarrhea, a metallic taste in the mouth, palpitation, vomiting, headaches, and upper body rash. Some victims have likened the experience to taking Antabuse, which is used to treat alcohol addiction. Andrus Voitek suggests that it only be served to teetotalers. Otherwise 'consider the awful prospect of giving up wine for several days in a row.'

Helene Schalkwijk-Barendsen sums up the experience as 'miserable internal disturbances'.

Clearly, this is not a mushroom for the beginner. There are many unknown *Clitocybes* in the Pacific Northwest, and according to Wikipedia, many small ones contain muscarine. *Clitocybe dealbata* and *Clitocybe rivulosa* have such high concentrations of muscarine that fatalities have occurred. Ingestion of *Clitocybe amoenolens* of France or *Clitocybe acromelalga* of Japan has led to cases of erythromelalgia, which have lasted from 8 days to 5 months. According to Wikipedia, erythromelalgia is a rare neurovascular peripheral pain disorder in which blood vessels, usually in the feet or hands, are episodically blocked and then become inflamed. There are periodic attacks of severe burning pain and skin redness. According to Medscape, the coprine toxins found in *Ampulloclitocybe clavipes* 'generate a metabolite that inhibits acetaldehyde dehydrogenase.' This sort of terminology is way over my head, so I was relieved to read Dr. Beug's take on it. He feels that if alcohol is consumed along with it, you won't get sick from it. However, if you consume alcohol from 30 minutes to several days after you ingest the species, the symptoms will come on. The intensity of the headache depends on how much alcohol went down.

On the other side of the debate over edibility, we have McIlvaine, who extolled even the synonyms. For *Clitocybe comitalis*, he wrote 'good texture and flavor. Like *C. clavipes*, but smaller, firmer, and inodorous.' For *Clitocybe media*, he asserted 'I have known this fungus favorably since 1883 and regard it as one of the best.' For *Clitocybe clavipes*, he opined that the 'substance is spongy and therefore does not stew well. Cooked in any other way, it is delicate and of excellent flavor.'

William Sturgis Thomas claimed that 'Fries says that this species is not edible on account of its spongy texture, but I find it pleasantly flavored and digestible, and see no reason why it may not be utilized if taken when dry. After heavy rains it is apt to be water soaked.' Bill Russell, author of *Field Guide to Wild Mushrooms of Pennsylvania* writes that he has eaten it for years with no problems. Hesler commented that the flavor was 'good to excellent.'

If you decide to go for it, the main thing to consider is the stem base. It should be consistently clavate or gracefully expanded at the base. Stem bases should be white tomentose but not with copious mycelium. Gills should always be white to pale yellow and long decurrent in attachment. If you find collections that have some stems equal or tapered towards the base, bypass them completely. You don't want to eat an unknown and potentially poisonous species by mistake.

The only question remaining is why should the type species for the genus *Clitocybe* suddenly be switched to the new genus *Ampulloclitocybe*? This is, of course, a DNA related event. I will now quote the appropriate paragraph from Redhead, Lutzoni, Moncalvo, & Vilgalys without the accompanying citations for the sake of better clarity.

'*Clitocybe clavipes*, which occurs on a weakly supported clade with *Rimbachia* and *Omphalina* sensu lectotype, presents a dilemma because it seems to represent a distinct genus, phylogenetically more closely related to the type of *Omphalina* than the type of *Clitocybe* (which was *Clitocybe clavipes*). The sequence data are unlike other traditional clitocyboid taxa, most of which prove to be more closely related to the *Lyophyllae*. *Clitocybe clavipes* is uniquely characterized among clitocyboid taxa by the formation of coprine-like compounds and by ultrastructurally minutely roughened basidiospores compared to smooth-spored *Clitocybe* or echinate-spored

Lepista. *Clitocybe clavipes* also produces a novel class of tyrosine kinase inhibitors, named the clavilactones. The combination of significantly different sequence data from other ‘*Clitocybe*’, and ultrastructurally distinctive spores suggest that *C. clavipes* has been incorrectly classified as a *Clitocybe*. We therefore propose to recognize a distinct genus, *Ampulloclitocybe*, for the species.’ The authors then proceeded to elect *Clitocybe nebularis* as the new lectotype for *Clitocybe*.

As Dr. Ammirati has predicted, we will be seeing a lot more new genera as the sequencing data comes in.

Ampulloclitocybe clavipes demonstrates once again that nomenclature is always on the move, that each species has a unique relationship with humans, and no name can be taken for granted until a diagnostic trait stronger than DNA appears.

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Foray at Fairhaven Park and Chuckanut Community Forest April 13, 2013

By Vince Biciunas

This was one for the record books: 7:00 am Saturday was dry and in the forties, but by 8:00 am, the rain was coming down steadily. But that's not all. By 9:45 am, it's snowing, real flakes, even if not sticking, and at 10:10 am, still snowing! When Chuck pulled in from Skagit County, his truck had two inches on the roof.

Luckily we had reserved the park shelter at Fairhaven Park with electric service and running water, so the coffee was hot, and Christine brought in her portable electric heater. We had some homemade baked sweets and hot quiche, as well as other potluck fare at lunchtime.

Never mind the weather, seventeen intrepid mushroomers came out to enjoy the spectacular spring profusion of blooming trillium, skunk cabbage, young nettles, and green shoots and leaves everywhere.

Since this section of park forest had multiple trails but no trail signs yet, I tried to keep track of everyone, making sure we didn't lose anyone, and one soaked mushroomer did get rescued by the nice folks at the 21st Street garden shop. But all in all, even with the rain and snow, we managed to find a few specimens, including one young natural Morcella.

Here's the list as compiled by Christine Roberts:

Basidiomycetes -Gilled mushrooms

Clitocybe *deceptiva* H.E. Bigelow
Coprinnellus *micaceus* (Bull.: Fr.) Vilgalys, Hopple & Jacq. Johnson
Coprinopsis *lagopus* group
Coprinus *comatus* (O.F. Muell.: Fr.) Pers.
Crepidotus *mollis* (Fr.) Staude
Inocybe *geophylla* (Fr.) P. Kumm.
Inocybe *praecox* Kropp, Matheny et Nanagyulyan
Lichenomphalia *umbellifera* (L.) Redhead, Lutzoni, Moncalvo & Vilgalys
Marasmius *oreades* (Bolton: Fr.) Fr.
Mycena *pura* (Pers.: Fr.) P. Kumm.
Mycena *stipata* Maas Geest. & Schwoebel
Nolanea *hirtipes* (Schumach.: Fr.) P. Kumm.
Nolanea *sericea* (Bull.) P.D. Orton
Pluteus *cervinus* (Fr.) P. Kumm
Xeromphalina *fulvipes* (Murrill) A.H. Sm.

Non-gilled and Polypores

Bovista *plumbea* Pers.: Pers.
Boletopsis *leucomelaena* group
Fomitopsis *pinicola* (Sw.: Fr.) P. Karst.
Fomes *fomentarius* (L.: Fr.) J.J. Kickx
Laetiporus *conifericola* Burdsall & Banik (old and manky)
Polyporus *badius* (Pers.: Gray) Schwein.
Trametes *versicolor* (L.: Fr.) Pilat
Piptoporus *betulinus* (Bull.: Fr.) P. Karst.
Phaeolus *schweinitzii* (Fr.) Pat.

Ascomycetes

Morchella *importuna* M.Kuo, O'Donnell & T.J.Volk.
Peziza '*repanda*' Pers.

Photo by Vince Biciunas



Yikes! It' began to snow at the April foray. Beautiful western Washington spring!

Photo by Vince Biciunas



Christine Roberts busy with identifying what turned up during the snow storm.

Foray Report, June 15, 2013

By Buck McAdoo

Bruce Armstrong, our normal foray host, had really messed up his back, so I stepped in for one more hurrah in the forest. We all wish Bruce a speedy recovery. It was one of those spring days where you just pinched yourself that you happened to be in this pristine park on one of the most gorgeous days of the year. The destination?

Photo by Buck McAdoo



Silver Fir Campground off Mt. Baker highway. I got to the ranger station in Glacier around 8 am. and was told 'first come, first served' for the shelter. As for a park fee, a concessionaire would take care of the \$5 when I got there. I must have passed three vehicles on the way up, not one of which had the slightest interest in the shelter.

No sooner had I set up the tables with our foray paraphernalia, than Bill arrived. I did not know Bill, but no matter. He was an immediate success story by offering the mosquito repellent. I could now use the extra time to set up a tripod without being consumed in public.

Other club members soon trickled in, many of them veterans of Fred's classes through the years. We had about 12 in all. Both Christine Roberts and Dr. Dick Morrison showed up. This would mean lively discussions over the species later in the day. Dick drifted over to the log where Steve Trudell had filmed *Baeospora myriadophylla* two days before. Not one was left.

But on an adjacent log, there was a virtual bonanza of *Kuehneromyces* species. These were species that had been lifted out of *Pholiota* because of their extreme fading of the cap colors when they dried. The one pictured here is *Kuehneromyces lignicola*. It totally covered the end of the log. On the side of the same log, there was a giant colony of the edible *Kuehneromyces mutabilis*. We were able to study the differences. *K. mutabilis* has an ochre stem that is thickish at the apex and tapers towards the base. There are also uplifted scales below the evanescent ring. *K. lignicola* has a thinner, dark brown stem that is sometimes smooth and sometimes minutely squamulose. People have eaten *K. mutabilis*. It is quite tasty and once rated #20 among the top 20 edibles in a poll in England back in the 1990s. But no one present, including myself, was tempted to try the *K. lignicola*. It just bears too close a resemblance to the deadly *Galerina marginata* to warrant the experiment. In short-stemmed specimens of *K. lignicola*, the only real difference is the ring. It is membranous (like a tiny doughnut)

Photo by Buck McAdoo



for *Galerina marginata*, and partial (a line of velar shards) for *K. lignicola*. Near the other end of the log was a third species, *Pholiota alnicola*. It looked like a buttery straw-yellow version of *Kuehneromyces mutabilis*, but the ochre stem was equal, not expanding at the apex. Steve had shown this to us at the club meeting on Thursday evening.

If you happen to have any interest in the *Entolomaceae*, June in the Mt. Baker National Forest is the place to be. It takes a special breed of person to have this interest. You have to be a little bit nuts. First of all, none are edible. Secondly, most of those found here are in *Nolanea*, a group of medium sized yellow-brown to brown mushrooms with few redeeming features. And lastly it means spending hours later with

Photo by Buck McAdoo



Largent's 505 page key. The one positive might be that lively discussions over the possible names can take up a whole afternoon.

But there is a history here. Back in late August of an indeterminate year, someone found a specimen of *Clitopiloides* up on Excelsior Ridge. The specimen came to Largent in its dried form, but with no macroscopic notes on its fresh condition. In his monograph, it is simply *Clitopiloides* 912. It is the only specimen found that represents this genus on the west coast. It has no clamps, narrow hyphae in the pileipellis, and the stature of a *Clitocybe*. I am always hoping to find another one of these so a fresh carpophore can be described. No luck this time through.

Instead we found a number of *Nolaneas* that seemed too large for *Nolanea cetrata* and too small for *Entoloma rhodopolium*, but somehow resembled both. They all went on one tray. After awhile, I took three that seemed similar, and photographed them under a conifer. This is the photo you see here. Dick then picked them up for the sniff test. The two on the right had a very slight alkaline odor with a tinge of citrus. The one on the left had no odor at first. Then if you snorted it very fastidiously right where the stem met the gills, a faint odor of old gym socks emerged. It became clear that I had taken a photo of two different species. Dick tended to agree.

Later, after the microscopic work was done, the two on the right emerged as *Nolanea holoconiota*. Christine had also taken home a specimen or two, and came to the same conclusion. It is a common northwest springtime *Nolanea* that can be told in the field by its bicolorous cap. The umbo or disc has a different color from the rest of the cap. Here, it is a pale straw yellow. According to Largent it can also be pale grayish-orange. Under the microscope, it has long, sinuous caulocystidia that emerge from the center of the stem, not the outer edge, which is the usual case.

The fruiting body on the left is still a mystery to me. I got it to *Nolanea* Section *Cosmeoaxonema*. Then I ran into this key choice: 5. Odor frog-like but not fishy; pileus without an umbo, translucent striate only at the margin; stem dark brown at first and then quickly fading to a light brown = *Nolanea odorata*. Or 5. Odor indistinct; pileus with an acute umbo, translucent striate to disc. Stem off-white at first and darkening to a medium brown at age = *Nolanea pseudopapillata*. You can see the problem. If you didn't catch the fading stem color and didn't feel that frogs smelled like old gym socks, you dead-ended right here.

This is not to knock Largent. He is dealing with a large group of fungi that might only differ in where the encrustations are found in the cystidia. His keys have to be complex and almost unworkable if he wants to maintain a sense of order in his system. Otherwise, many of the species would have to be double-keyed possibly many pages away from the section they belong in. On top of this, the specimen you are looking at might have flaws that keep you from getting there. I once mailed Largent a specimen that was so old that the gill edges had rotted out. This meant I couldn't find the cheilocystidia that were supposed to be there. Largent spotted the problem right away and was able to put a name on it.

Other interesting fungi were found. The foray list is now:

Agrocybe praecox – Common, usually on bark mulch but can be found in real nature, too.

Bjerkandera adusta – A semi-rare polypore with an effused-reflexed growth pattern. The 'effused' means that it starts out as a resupinate scab on a log or trunk. If it develops a shelving fruiting body off of that mass, it is termed 'reflexed.' Dick Morrison figured out this one. It always has tiny, round, gray pores. This one had lined, caramel colored caps.

Caloscypha fulgens – This one caused a bit of a stir because there was no blue or blue-green on the margins of the cups. The only other choice would have been the Orange Peel fungus, and that, it was not.

Clitocybe squamulosa – A fairly common, nondescript springtime *Clitocybe* with white, decurrent gills and a slightly scurfy ochre cap.

Coprinus lagopides – A delicate gray *Coprinus* that usually fruits on manured straw. Brought in from elsewhere.

Coprinus micaceus – Good edible, especially in soups. Big colonies can be found at the bases of dead tree trunks.

Fomes fomentarius – This one had an atypical fruiting body of three or four layers.

Fomitopsis pinicola – Has an attractive shellacked look when young. Found by Gary.

Ganoderma tsugae – Has a dark red, shellacked crust. Occasionally turned into brooches in the northeast.

Glomus species – An eccentric find by Dr. Dick. They looked like tiny yellow pin cushions with minuscule white spots. Fred Rhoades evidently worked them to genus later. What a job that must have been!

Gymnopus confluens – A common woodland Collybioid mushroom with a stem entirely coated with whitish hairs.

Gymnopus dryophilus – A mushroom with crowded white gills, a terete yellowish stem, and an orange-brown cap. Very common, and very variable depending on where it is fruiting. Named for its association with oak, but fruits under numerous trees.

Gymnopus sp. – Yet another new species found by Sue Blethen. She found three of these near the end of the foray in wet muck under hemlock. They had small grayish-flesh colored caps with brick colored spots at disc. Spent a day working them over with the microscope and can't find a fit anywhere in the literature. This is not uncommon, according to Dr. Dennis Desjardin. There are many undescribed or poorly known species in *Gymnopus* in the Pacific Northwest. Thanks, Sue, for providing another one.

Hebeloma sp. – Don't remember what this was.

Hypholoma fasciculare - The poisonous Sulphur Tuft. Yellow caps and lurid yellow-green gills that turn black in age. Too bitter to eat, but has killed people in northern Siberia who love bitter tasting things.

Kuehneromyces lignicola – Pictured here. Has lubricous yellow-brown caps and a dark brown stem. One of the most common western spring mushrooms in the mountains. Not to be snacked on, tempting as it looks.

Kuehneromyces mutabilis – I took a little bag to the boat galley, and fried them up. Don't try this on your own. A novice could confuse it with *Galerina marginata*, a deadly look-alike.

Lichenomphalia umbellifera – This used to be called *Omphalina ericetorum*. How the times have changed.

Macowanites sp. – A genus halfway between a truffle and a gilled mushroom. I think Dick found this. No idea whether he found a species name for it.

Mycena amicta – Brought to the site by a kid who happened to be camping nearby. The one specimen had some blue on the cap margin.

Mycena aurantiidisca – The tiny orange *Mycena* with the yellow cap margins.

Mycena galericulata – One of the largest of the brownish-gray *Mycenas*. Supposed to be edible, but I never tried it. Fred?

Mycena stipata – A brown-capped *Mycena* with an alkaline odor. This also describes *Mycena leptcephala*, so unless you bring your microscope with you

Nidula candida – The most common bird's nest fungus in the area. Very cool if you haven't seen one before.

Nolanea sp. – A silvery-ochre *Nolanea* with an odor of gym socks.

Nolanea holoconiota – Pictured here. Note how the cap color changes as it dries.

Peziza repanda – a nondescript cup fungus with red-brown to ochre-brown cups generally in a flattened state.

Phaeolus schweinitzii – The hyena of the polypore world. It can parasitize the bases of living conifers but only goes after trees that are already wounded in some way.

Pholiota alnicola – This is what I missed out on by being tied up when Steve Trudell went out to foray. I didn't really know this species until I saw it at the meeting.

Polyporus badius – Also known as *Melanopus picipes*, I've seen specimens with white pores and golden yellow pores, both identified for me by Dr. Ginns. Probably the most variable polypore I've seen.

Pseudorhizina californica – This has long been a member of *Gyromitra*. It has a pinkish flush on the stem and can be found in most springs in the mountains of the western Cascades.

And that about ties it up for this season. There were just enough fungi around the campground that no one needed to venture to higher ground!

Thanks to all who attended, and see you in the fall!

Lost Mushroom Hunter

By Margaret Dilly

I am sure all of you have heard of and read many reports of the search for Hildegard Hendrickson, an avid mushroom aficionado who failed to return from her morel hunting venture a month ago. Unfortunately, she was venturing out alone. The search continues with a team of devoted friends and interested persons.

I have known Hildegard her since 1972 when she and her husband Monte joined the Puget Sound Mycological Society in Seattle. She was not only an avid mushroom hunter but she taught identification classes and led field trips for many years. She and her late husband edited the club newspaper for many years.

She received the prestige's PSMS Golden Mushroom Award in 1979 for outstanding devotion, dedication and service to the club.

She and I both have served as trustees on the Daniel Stuntz Foundation. He was our mentor and friend. Her expertise as a retired Professor of Business and Finance at Seattle University was a very valuable asset to this foundation. Her disappearance is a great loss to us, as well as to all that knew and loved her.

The loss of a friend is always a sad thing. To me personally, I hope she can be found, and hope also, that what ever might have happened to her, she did not suffer.

Her experience should teach all of us never to go mushrooming alone and always stay no more than a whistle blow away from a partner mushroomer while we are searching for the elusive treasures of the forest.



Editor's note: It is a shame that a tragedy such as this should cast a dark shadow over what should have been an utterly joyous celebration of the proliferation of the mushrooms we all are so passionate about. It underscores the ultimate importance of being prepared when venturing into the wild places of this world. Our deepest sympathies go out to Hildegard's friends and family. -Jack

Last, but not least, almost lost in the madness of the morel season on the eastern slopes of the Cascades, an epic fruiting of the tasty oyster mushroom right here in Whatcom County. By Chuck Nafziger

Here are some photos of oyster mushrooms from behind my cabin. Pictured here are the oyster mushrooms that

Photo by Chuck Nafziger



Oyster mushrooms to spare!

were harvested on May 22nd. Only one week later there was another phenomenal flush. The picture on the left shows the still full basket, and a fully packed dehydrator ready to run. I filled the drier three times out of that basket and got a few fresh meals. Beside what is shown in these photos, friends took away three shopping bags half full, and I had harvested another drier full a couple of months earlier. Later, I got another partial basket that supplied enough mushrooms for two potluck casseroles and several more meals.

Photo by Chuck Nafziger



This is by far the best year for oyster mushrooms behind my cabin.

Peace from Peace Lane, Chuck

Photo by Jack Waytz



Best prince, *Agaricus augustus* button of all time!

And so, the season changes to summer in, heralding in these princely delights...