MushRumors

The Newsletter of the Northwest Mushroomers Association

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2009 Mushroom Season Blasts into October with a Flourish

A Surprising Turnout at the Annual Fall Show by Our Fungal Friends, and a Visit by David Arora Highlighted this Extraordinary Year for the Northwest Mushroomers

On the heels of a year where the weather in Northwest Washington could be described as anything but normal, to the surprise of many, include yours truly, it was actually a good year for mushrooms and the Northwest Mushroomers Association shined again at our traditional fall exhibit. The members, as well as the mushrooms, rose to the occasion, despite brutal conditions for collecting which included a sideways driving rain (which we

photo by Pam Anderson



Fabulous first impressions: Marjorie Hooks crafted another artwork for the centerpiece.

thought had come too late), and even a thunderstorm, as we prepared to gather for the greatly anticipated sorting of our catch at the hallowed Bloedel Donovan Community Building.

I wondered, not without some trepidation, about what fungi would actually show up for this years' event. Buck McAdoo, Dick Morrison, and I had spent several harrowing hours somewhat lost in the woods off the South Pass Road in a torrential downpour, all the while being filmed for posterity by Buck's step-son, Travis, a videographer creating a documentary about mushrooming. I had to wonder about the resolve of our mem-

bers to go forth in such conditions in order to find the mushrooms needed for the

annual show displays. As it was, I had nothing at all to worry about. By shortly past 5:00 pm, wet mushroom hunters were emerging from the temperate rain forests of Whatcom County with a quite respectable ar-

ray of mushrooms indeed. In fact, it would turn out to be 225 species, just 25 less than last year's record turnout! This brings me to the first bit of gratitude I must express. To all who went above and beyond the call of duty to bring in their mushooms, a great thanks, for the success of this year's show began with this wonderful effort.

photo by Pam Anderson



A fabaulous *Cantherelleacae* display featuring *G. kaufmanii*.

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We implemented a new plan this year for sorting the specimens into genus, simply putting them into alphabetical order, rather than arranging them by spore color. This simplified the early sorting and allowed

beginning identifiers to really pitch in. We had quite a few first time participants in this phase of the operation, thanks to new member interest and enthusiasm sparked by Fred Rhoades in the second year of his identification class. Thanks to all of the "new blood" for all of your assistance, as it allowed the expert identifiers to get a real leg up on their end of things. We got a lot further on actual species identification on Saturday evening than we have in past shows.

An eager bunch of mushroomers gathered just past 8:00 am on the morning of Sunday, October 18th, to get started on the real challenge of assembling the displays for exhibition. One of the changes that we made for last years' show was a new labeling and tagging system devised and implemented

photo by Fien Hulscher



One of the shows' best collections: striking Amanita muscaria.

with our fungal friends were rapidly approaching a beautiful version of the NMA Fall Wild Mushroom Show. I was astonished to look up at the wall clock and notice that it wasn't yet 11:30! What a luxury it was to be able to use the last half hour to fine tune the displays and have the identifiers perform last minute checks on the identification tags to verify accuracy, as well as continue to work on the specimens which, as is the case every year, proved to be just mysterious enough to make even the experts break out their microscopes and delve into the more obscure keys. A huge thanks to all who partook in setting up the display trays, and same to those who ran back and forth from the identifiers to Linda for labels, and back to the mushrooms.

At noon we flung open the doors to an energetic throng, people of all ages curious about our passion, the mushrooms. As usual, many brought mushrooms of their own to be identified as well as a desire to learn about

photo by Pam Anderson



So it begins...Buck takes afirst look at the newly sorted collections; the calm before the storm.

by Linda Haynes. This year, she made further improvements, including the purchase of a small labeling device which interfaced with the laptop computer in order to produce the tags for the mushrooms on display. I was more than a little impressed at how smoothly the new moving parts locked into place. A combination of the new labelling system, and an awesome effort by those creating the display trays, enabled the group to put the whole show together for public viewing with far less of a sense of frantic chaos than is our custom. We are used to being in a frenzy literally up until 11:59 am with the doors opening at 12:00 noon. As I surveyed the scene, all was coming into focus as the tables

filled photo by Fien Hulscher



Harold entertains a riveted public at the touch and smell table.

what they saw in the displays. The members of the Northwest Mushroomers Association responded beautifully, as always, sharing the wealth of knowledge that we have collectively amassed with people who entered to see just what the mushrooms are all about. Thanks to Fred Rhoades, Buck McAdoo, and Tim Johnson, who staffed the identification table, and to Harold Mead and Maggie Sullivan at the Touch and Smell table, for their stellar work there, their table is always a favorite.

Pholiota
Pho

We also had several new hands and the kitchen, as well as some of the usual suspects, and a great team effort resulted in a very well sated public, plied with sauteed chanterelles, and we, the members were also well taken care of with tasty delights of our own. Thanks to all, especially Bob Clemens who not only became the de facto kitchen boss, but also provided his own chanterelles! Also a special thanks to Nadine Lihach who once again was the face of our club at the door.

For the second consecutive year, we were fortunate to have Alex Winstead of Cascadia Mushrooms providing people with the opportunity to gain knowledge about mushroom cultivation, and also purchase starter logs and growth medium to try their hand at growing their own.

It is very important to mention how fortunate we are as a mushroom club, to have the people who can truly be classified as "mushroom experts." There are many clubs the size of ours that have just as many enthusiastic members, but have a tendency to starve for those rare individuals with expertise in the field of mycology. We are rich with such people, and they are not to be taken for granted. Learn from them when ever you have the opportunity. Thanks to Margaret Dilly, Buck McAdoo, newcomer Dick Morrison, Erin Moore, Larry

Baxter, Tim photo by Fien Hulscher

Johnson, and especially Fred Rhoades for their contribution of expertise not only for our club, but to the benefit of the entire community. Last and certainly not least, thanks again to Erin, you are the master of publicity!

After the doors closed and the nearly 500 people that we entertained with all things mushroom had departed, I had the sense that despite very tough conditions for the mushrooms, this years' show had been a triumph none the less.

After a great group clean-up, the day ended with a feast of uncommon culinary brilliance.

photo by Pam Anderson



High level talks among the experts at the Saturday night sorting.



Fantastic fungi on the march!

David Arora Visits the Northwest Mushrooms Association and the Community of Bellingham by Jack Waytz

In perhaps the most significant event in the 20-year history of the Northwest Mushroomers Association, David Arora, renowned mycologist and acclaimed author of *Mushrooms Demystified* and *All That the Rain*

Promises and More, came to Bellingham, Washington, on October 22nd to share his wisdom about mushrooms with our community. He gave an awesome talk to the more than 400 people who attended, and he joined the club for a members' foray on Friday. The event was cosponsored by the Northwest Mushroomers and, thanks to the involvement of Dr. Fred Rhoades, the Biology Department of Western Washington University. I want to personally thank Fred for his willingness to be the catalyst for the group to obtain such a great facility for David's talk, as well as his foresight to suggest that this event be a gift from the Northwest Mushroomers and Western Washington University to the community of Bellingham.

I must admit that I had no idea what David was going to do for his presentation. When I asked him what his requirements would be at Arntzen Hall, he told me simply, "I need a microphone and a light". David spent the day at a cafe in Fairhaven preparing notes and I could not guess what his talk would cover. 400 of us assembled were in for a rare treat.

Once he started, we were all utterly riveted not only by his ability to tell a story, but also by the content of the stories he

phoyo by Jack Waytz

Joy Chen and David pose with Amanita muscaria cupcakes after David's talk.

photo by Anita Waytz



Buck, David, and I in my kichen after the Friday foray: non-drinkers toast with lobster mushrooms!

about mushrooms, but a talk about all of us and mushrooms, and everything else as well. He lent a very human aspect to his engaging tales of mushroom hunters that he had encountered in so many places in this world, and I was left with the feeling that there was infinitely more depth to my own passion for mushrooms than just finding things for the table that taste good. In the telling of his stories, David made mushroom hunting and the people who do it seem almost mystical and legendary, and the people and mushrooms at length seemed allegorical, as though they were symbols of something far greater in the universe than we all might have previously considered.

As I looked around the hall, I could see that I was not alone in being captivated by David's talk. Everyone had much the same look of fascination on their faces as I did. It was an experience that everyone present will never forget.

was telling.

only a talk

This was not

I was especially fortunate since David spent three days at my house. He arrived on Wednesday afternoon and left on Saturday morning after recovering from the Friday foray. I had already promised to cook meals which featured the wonderful edible mushrooms of Whatcom County, so I was placed under some pressure (by the mushrooms, or should I say scarcity thereof) to make good on this boast.

As it turned out, I made a tried and true recipe of dried lobster mushrooms, roasted red peppers, and tiger prawns. David enjoyed the meal immensely, and that was high enough praise for me.

On Friday morning at just after 9:00 am, we all arrived at the Sunset Square Starbuck's and prepared to scatter as small groups to hunt for our beloved mushrooms. We were all to meet again between 12:30 and 1:00 pm at the Silver Lake Park shelter and proudly display our haul. By the time we all got to Sunset Square, it

photo by Pam Anderson



At the Silver Lake Park shelter, everyone listens to David expounding on the day's catch.

was raining sideways and David was armed with a bottle of red wine from the Mount Baker Vineyard, a cork screw, and a glass. Being from California, he proclaimed himself to prefer hunting in more moderate weather. Fortunately, conditions improved greatly as David, Buck, and I, along with Buck's step-son Travis filming, approached our destination close to Mount Baker

After being rather nervous about what we would fail to find, we actually did pretty well in spot that I am very familiar with (which shall remain undisclosed). Upon arriving at Silver Lake Park, I was quite heartened to find that all had done reasonably well. There was actually a most respectable array of fungi for people to view and discuss, as one can see from the photos, David had everyone's rapt attention. One great

consequence of the foray was that David and Buck collected up several of the nice edibles that were assembled and they found their way into pans on my stove. Well, someone had to do it! We had *Leccinum scabrum*, two good prince buttons (an extremely rare find so late in the season), and I had some chanterelles left over from the South Pass Road, which I combined with sauteed chicken breast, onions and a white wine cream sauce, served with a delectable potatos au gratin.

So after all of the wondering about how the Saharan conditions of summer and early fall would effect our fragile mushroom environment, what a great year 2009 has turned out to be. This year's Fall Show was terrific, and David Arora's visit will be forever one of the fondest memories of my life's mushrooming experience.

A Note From David Arora Dear Friends.

I want to express my deep appreciation to all of you who attended my Oct.22 talk in Bellingham. Your enthusiasm and warmth was overwhelming and you even arranged for *photo by Doug Hooks* decent weather

during the foray instead of the downpour that was predicted.

photo by Pam Anderson



Buck was heard saying, "I'm telling you that *Inocybe* was that big!



So ends a great foray experience under far less heinous weather conditions than expected.

decent weather Your town is a beautiful and friendly one, among the best I have visited. I hope to come again and I wish you all a wonderful holiday season. Those wishing to contact me can do so at davidarora. com (but don't send photos there, please).

For the week leading up to this year's fall show, some of us were exhibiting emotions ranging from angst to outright dismay. It hadn't rained for weeks. The few species seen about town were surviving in tendrils of fog. And then it dumped. About 5 inches of rain in two days just prior to the show. It was interesting to observe how the mushrooms would react. We also have to commend those of us who were out there slogging around in the torrent, gathering what we could. And what a season for my stepson, Travis Tillman, to decide to capture it

photo by Pam Anderson

What an omelet this would make with two dozen eggs!

all on film. I took him on mushroom hunts when he was nine years old and this was a return to old haunts. Thanks to all those who talked with him during the shoot. In future years it might be fun to have this documentary in our archives. I think he was rather intrigued with the whole project, especially the part when Dick, Jack, and I were lost in the woods in mid afternoon with Jack holding the keys to Bloedel Donovan, the rain coming down in buckets, and a hunter's shot ringing out in the gloom. Who knows how many poorly understood species we might have trampled on in those circumstances. Even chanterelles were ignored until Dick spotted a clearing that turned out to be the road itself.

As for the mushrooms, the excess of rain brought out Russulas in bushels. Back at Bloedel Donovan, the boxes of

photo by Evan Sanford

Russulas stretched a quarter of the way across the floor. At about 10 am on Sunday morning I was still bogged down in them, digging out one *Russula brevipes* after another. There were just as many specimens of *Russula xerampelina*, and perhaps even more of what we have been calling *Russula olivacea* since the beginning of time, now evidently *Russula occidentalis* according to Christine Roberts, whom alas, was not there to enjoy this bonanza. By around 10:30 am, I was accosted by both Fred and Margaret at different times over the possibility of just leaving Russula and turning my attention to another genus. It was that kind of a day. Believe me. After spotting numerous specimens of the deadly *Amanita silvicola* amongst the *Russulas*, I was glad to head for *Cortinarius*.

Fortunately, we had plenty of help. Although missing the talents and support of Doug Hooks (out with the flu), Vince Biciunas (in Spokane with Migo), and Chris Roberts (prior engagement), we got a nice return to the

action from Erin Moore, and the perennial Saturday night boost from Larry Baxter, who makes it every year up from Stanwood. To these folks we can add myself, Dick Morrison, Margaret Dilly, Fred Rhoades, Harold Mead, Tim Johnson, Jack Waytz, Dan Digerness, and T.J. Olney to the group of identifiers, an impressive number when considering the size of our club. There were also talented sorters chipping in whom I didn't even know, and our thanks go out to them as well.

Perhaps the most unusual mushroom of the season didn't even make it to the show. Picture a large, fleshy *Leccinum* with a thick, black, nodulose cap reminiscent of *Boletus*

Fred talks with Tim Johnson with Buck's Huge Mushroom Compendium waiting to be used.

mirabilis! When spotted by Dick Morrison in a field of kinnick-kinnick far from Bellingham, the specimen had already started to rot where stipe meets cap. Since it was found on Friday, it would never have made it to Sunday. It keyed out nicely to *Leccinum idahoense*. The Key Council keys suggested it hadn't been found outside of Idaho before.

The sudden rains brought up other interesting taxa as well, many present at our show for the first time. And so, in no particular order, we give you:

1.) Leccinum rotundifoliae - Found by Jack Waytz under birch while cruising through Everson. Like Leccinum

scabrum, but with paler, tan colored caps and stipe flesh that turns lavender-gray at first, when scraped with a knife blade. The flesh turns dark blue with iron sulfate.

- 2.) Albatrellus ellisii A solitary, large, rotting polypore brought to my attention by Larry Baxter, who may have brought it up from Camano Island. Known as the 'Greening Goat's Foot', it had a hairy, grayish cap and large cream- colored pores with yellow-green stains. I'd never seen it before.
- 3.) Cortinarius latus A large, handsome Phlegmacium (viscid cap, dry stem) with a bicolorous cap. The cap discs were a dark chestnut fading to ochraceous at the photo by Pam Anderson

margins. In <u>Icons of Medicinal Fungi from China</u>, *Cortinarius latus* is credited with a 100% success rate against Ehrlich's carcinoma and sarcoma (not Sarcosoma). Again, another first for our show

another first for our show.

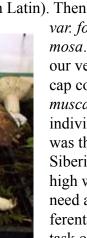
photo by Pam Anderson

4.) Cyathipodia cupuliformis – An exceedingly rare ascomycete identified for us by Fred. The grayish cup on a long pallid stem is distinctive. Known as *Helvella cupuliformis* in our Key Council keys. Perhaps DNA findings moved it out of Helvella. Whatever the case, it was a treat to see it.

5.) Amanita muscaria group — Very possibly the most visually spectacular mushrooms at the show, T.J. Olney spotted them at a rest stop on I-5. In the past we have always called the orange-capped specimens *Amanita muscaria*

ted them at a rest stop on I-5. In the past we have always called the orange-capped specimens *Amanita muscaria*tray.

var. formosa (which means beautiful in Latin). Then the DNA studies kicked in. It was discovered that the



var. formosa of Europe differed from our west coast var. formosa. Just as pundits were preparing to find a new name for our version, further DNA studies showed that all the different cap color forms of Amanita muscaria were simply Amanita muscaria except for the var. flavivolvata, which retained its individuality. As this was becoming disconcerting to some, it was then discovered that the Amanita muscaria of Europe and Siberia differed from North American A. muscaria (they get high while we get sick). So now our Amanita muscaria will need a new name. Trying to find visual differences in two different entities that look alike in the field is now the enviable task of experts. Thank you, T.J., for providing a window into this problem.

6.) Agaricus sp.- This was the species labeled Agaricus purpurellus at the show. I thought it was A. purpurellus myself. Since Dr. Kerrigan, an Agaricus expert back in Pennsylvania, wanted me to send him specimens of our northwest version of Agaricus moelleri to compare with European material, I decided to include this specimen as well. He was very excited to get it! He couldn't get any red or yellow staining reaction from it, but thought it might be Agaricus subrufescentoides, a species described by Murrill in 1912 and not reported on since. Nice find, Margaret!

- 7.) Ramaria vinosimaculans This was the large, fleshy coral mushroom almost entirely covered with burgundy stains. It was labeled Ramaria sanguinea, but that species fruits in the southeast and midwest and has lemon yellow branches with bright yellow tips. R. vinosimaculans has cream colored branches with pale yellow tips. Evidently it continues staining burgundy even after ingestion.
- 8.) Stropharia aurantiaca A young guy we didn't know brought in a fine collection of this brilliant scarlet *Stropharia*, formerly in the genus *Hypholoma*. It fruits on wood chips and is fairly common in Golden Gate Park. Otherwise a rare species perhaps native only to wood chips.
- 9.) Helvella crispa This all-white Helvella was another first for our show. A photo in <u>Fungi of Switzerland</u>, Vol.1, shows *H. crispa* with a white stem and pale tan cap while *Helvella lactea* is shown to be entirely white, like our specimens. Helvella lactea is a European concept, and I suppose the next move would be to

get the specimens to Dr. Nancy Weber to see whether it has crossed the Atlantic or not. Meanwhile, Helvella crispa has been found in British Columbia.

- 10.) Hygrocybe subceracea This was a small yellow Hygrocybe that sometimes shows up at the Bow Cemetery under Norway spruce. Considered to be rare, it is not even in the Pacific Northwest Key Council keys.
- 11.) Ramaria rubrievanescens An impressive coral fungus with a massive stem and pale pinkish branches that fade to buff soon after picking. The sweet odor and nutty flavor probably indicate a really good edible.
- 12.) Clitocybe maxima Someone brought in this robust Clitocybe with the pale orange-flesh cap and grayish-white stem. Great find. I had never seen it before.

photo by Pam Anderson



Time for some levity for Erin and I, even amid the stress of the setup.

13.) Gomphus kauffmanii – Another enormous specimen was contributed again by Stash. This was the giant, cardboard colored, funnel-shaped member of the Cantharellaceae with the shaggy cap scales. Always a crowd pleaser at our shows. Not recommended for the table.

We could go on and on, but we are grateful for what the sudden rains brought up. Besides these, there were perhaps a dozen species we couldn't put names to. These were photographed and dried after the show, and perhaps will be enjoyed by a future researcher in a future century. Every year, some species seem to get lost during the show, and I have come to the conclusion this is completely natural. There is a lot of cross-traffic going on. Some specimens are not in the

right boxes to start with. While moving Amanita silvicola out of the Russula boxes and into the Amanita box, I might become engrossed in Amanita, for example. I might not even return to Russula, leaving interesting species behind when everyone else would conclude I had done the Russulas. That is one scenario. A more common scenario is that some species have more appeal than others, and as you head for that box of fiber heads, you might not want to put them all on the table. All through the day different identifiers are tackling different boxes

photo by Pam Anderson

of genera. What may seem important to one person, might be insignificant to another. This is the arbitrary part of our fall shows, and under the time restraints we have, I doubt it can be improved on. It is the principle of natural selection, and if a few species fall by the way (Cortinarius purpurascens, Stropharia coronilla this year), it's a small price to pay for the tremendous energy and cooperation we all put into it. Just as professional mycologists decide which genus to attend to, each identifier heads for a certain box. It's a kind of random lottery depending on which identifier tackles which box at what time of day. Any box, such as the puffballs this year, looked at about five minutes before noon, has no chance at all.



This year's version of the fungal crusaders: I offer a hearty congratulations to all—a job well done.

About 6-8 species every year are misidenti-

fied and placed in the wrong genera on the tables. I think it is permissible to correct these during the show. So if any of us see a bête noire out there, check with Fred, Margaret, or myself on where it should go.

Finally I have just heard from Margaret that 214 species were recorded at the show. Not too shabby for the drought conditions three days prior to it.

September 12th Foray at Berthusen Park

By Buck McAdoo

The first foray of the fall season kicked off at Berthusen Park on a gorgeous day with about twenty club members showing up. Fien Hulscher chaired the foray amidst some sort of regional high school running race that saw runners jogging down many of the paths most of the day. Allie and Louis were among the first to arrive, and fortuitously set up the Northwest Mushroomer signs so we would know where to go. By the time I got there, Louis had already hit the woods, leaving Allie to choose a site. "I've never been here before," she explained.

We quickly chose a few tables to unload the picnic gear, and a solitary one for the mushrooms. And just in time... I had barely lugged over my identification books when Marrianne Phelps hoved into view with the first basket of specimens. To my great surprise I was to remain there for the rest of the foray. The entire table filled up with mushrooms. It was quite an assortment. As one has come to expect, *Gymnopus peronatus* (the former Collybia peronata) could have covered the table all by itself. This is a non-native fungus that has only appeared in the last ten years from Europe, but has just taken over our coastal mixed forests. We tasted one that was acrid and one that was mild.

The major dilemma with this foray was not the lack of species, but the lack of edibles. Fien usually brings some mushrooms with her, but relies on the finds of club members to add to her famous soup. She was constantly marching to the table to see if anything good had come in. The candidates were not promising. There were only two deer mushrooms (Pluteus cervinus), one Tylopilus pseudoscaber which Arora described as edible but not incredible. The blackish-brown color of cap and stipe was not encouraging. There was one nice Lepiota rachodes, and two different Ramarias (coral mushrooms) that Fien eyed hopefully. The better looking of the two was *Ramaria maculatipes*, which the Kit Scates Key Council key described as 'edibility unknown.' There was also Ramaria myceliosa var. microspora, which had a weird odor and looked too nasty to deal with. Most Ramarias are edible so it must have been agonizing for Fien to keep the *R. maculatipes* out of the pot. In Europe, the mixing of many different species in a stew is a long-standing tradition. This works well if everyone is familiar with the mushrooms. If you have several 'edibility unknowns' in the mix and someone gets sick, you would not know which mushroom caused the problem. This might have been the case if we added both the Ramaria and Gymnopus peronatus, a species that a restaurant on Chuckanut Drive has served to clients before. Berthusen Park is well known for its late season fruitings of Armillaria mellea and Lepiota rachodes, but they couldn't bail us out today. In the end, Fien used up her valuable supply of Lobster mushrooms, and the soup was a success after all.

The other problem was a little more taxonomic. Since there

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The Northwest Mushroomers Association meets at the Bellingham Public Library, 210 Central Ave., Bellingham, in the Lecture Room, at 7:00 pm on the second Thursday of the months April, May, and June and September, October, and November. *Note:* This year's April and November meetings will be held at the ReStore, 2309 Meridian St. 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 forward to: Cris Colburn, Membership, at the mailing address above.

Fien 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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was only one specimen of the edible Agaricus semotus, some thought it should remain on the table so we could all learn it. But it also had a wonderful anise or almond aroma that could transform the stew into a divine concoction. It was the foodies verse the techies, and I don't know who won that particular tug of war. Everybody

photo by Buck McAdoo



Fien surveys her domain and looks to be at peace with the mushrooms

knows the relationship is symbiotic. Sadly, two or three nice specimens of the edible Agaricus silvicola arrived near the end of the foray, far too late to be included in the stew.

As for the mushrooms, the most beautiful was a prime specimen of *Amanita gemmata* carefully picked so the entire stem base was showing. The greatest mystery was a tiny Boletus with a rose pink suede-like cap only 12 mm. wide, rose pink scurfy stem with a smooth yellow band at the apex, and yellow pores that stained blue instantly. This was found in the middle of one of the hiking trails, so it was a miracle that it wasn't squashed by the runners. The only candidates to present themselves in North American Boletes were *Boletus dryophilus*, known mostly with oak in southern California, Boletellus pseudochrysenteroides,

a rather rare species found from Maine to California, but always with yellow mycelium at the stem base, and Boletus rubellus, which had the best spore match-up and can be as small as 2 cm. wide. And without more ado, the species list:

Trametes hirsute Pholiota flammans Pholiota squarrosoides Tyromyces chioneus Tyromyces caesius Paxillus tomentosus

Paxillus involutus Lycoperdon pyriforme

Phaeolus schweinitzii Fomitopsis pinicola Pluteus cervinus Tremella mesenterica Clitocybe clavipes

Jahnoporus hirtus Strobilurus albipilatus Mycena haematopus

Ramaria myceliosa var. microspora Ganoderma applanatum

Ramaria maculatipes Lentaeria byssiseda Crepidotus mollis

Lepiota cristata Lepiota atrodisca Lepiota rachodes Boletus rubellus (?) Armillaria mellea (group)

Tylopilus pseudoscaber

Gymnopus (Collybia) confluens Gymnopus (Collybia) peronatus Gymnopus (Collybia) dryophilus

Hypholoma fasciculare Tricholomopsis rutilans

Agaricus silvicola Agaricus semotus Tubaria furfuracea Psathyrella gracilis Entoloma rhodopolium

Amanita gemmata

Marasmiellus candidus Lactarius mitissimus

Parasola (Coprinus) plicatilis

photo by Buck McAdoo



Buck's snapshot of the rare Boletus rubellus, one of the interesting mushrooms.

As you can see, some Latin names we have become used to for decades have been changed. DNA profiling has caused a revolution in *Coprinus*, the inky caps. Only three species remain in *Coprinus*. One is the Shaggy Mane, Coprinus comatus. The other two are Coprinus quadrifidus and Coprinus sterquilinus. All others have been sent to Coprinopsis, Coprinella, or Parasola. Only four diminutive species remain in Collybia. The others are all in Gymnopus or Rhodocollybia. Even Lepiota rachodes and all its varieties have a new genus. They now belong in Chlorophyllum. You can google 'Chlorophyllum rachodes – Else Vellinga' to find out why. Again, DNA profiling has shined the light on this one.

In hopes that everyone enjoyed this foray as much as I did.

Mushroom of the Month

Laetiporus gilbertsonii (Burdsall) By Buck McAdoo

Back in 1949 in *Mushrooms* in *Their Natural Habitats*, Dr. A.H. Smith wrote of this species, 'in the vicinity of Mt. Baker, it was found in great quantity on hemlock'. As summer advances into autumn, 2009 looks to be another one of those years. Doug Morrison found those pictured here on August 2 on an alder log. About two weeks later Jack Waytz found a break up at Schreiber's Meadow on an ancient but still living hemlock trunk. Jack has the ability to spot a mushroom from a

photo by Buck McAdoo



speeding car, so he capped off the Laetiporus bonanza by finding another clump on a plum tree off Woburn Avenue in downtown Bellingham. According to the literature, this collection must also be *Laetiporus gilbertsonii*. I boiled it for 8 minutes in chicken stock and green peppers, then sautéed it with shallots and onions in butter. This is a simple recipe with no spices offered by Jack Czarnecki in Joe's Book of Mushroom Cookery. Jack and I both thought it had a pronounced citrus flavor and an excellent texture.

Laetiporus gilbertsonii has long been known as Laetiporus sulphureus or Polyporus sulphureus in older guides. Recent DNA profiling and mating compatibility tests have shown that Laetiporus sulphureus consists of six different species. The resulting key by Banik and Burdsall is the first key I've seen that features geographical location as a vital characteristic. True Laetiporus sulphureus is found on the east coast on hardwoods. Laetiporus conifericola fruits on fir, spruce, and hemlock from Alaska down into California, and also in the Rockies. The Laetiporus formerly known as L. sulphureus var. semialbinus is now known as Laetiporus cincinnatus, since the type specimen was found in the vicinity of Cincinnati. It has a white pore surface instead of brilliant yellow. If you find the yellow pored species fruiting on conifer wood in the midwest and east coasts, you have Laetiporus huronensis. It mates with L. conifericola 15% of the time, about the same as dogs and wolves. Laetiporus gilbertsonii fruits on oak and eucalyptus in Arizona, New Mexico, California, and up into Washington, where it was found in 1998 on Prunus. It is probably less common than L. conifericola in our area. A paler version of this is L. gilbertsonii var. pallida, found in the Gulf States.

Whether you want to call them Chicken of the Woods or Sulfur Shelf, they can be absent from our woods for decades. Species of Laetiporus can attack a living tree through a surface wound and expand inside for years before a fruiting body appears. They produce a red-brown heart rot that hollows out the tree. Once they emerge from the host stump they can be found for several years at the same location. This may be why Doug was so elated with his find. A much appreciated past president of Northwest Mushroomers Association, Doug grew up in Moose Jaw, Saskatchewan where a festival called Hobnobin with the Hobglobins takes place every August, about the time when the Sulfur Shelf might be expected to appear. Must be a warm up for Halloween. Any one of these brilliant orange species of Laetiporus makes an astounding statement in its somber surroundings, and for a brief moment, Doug must have thought he was back in Moose Jaw. More to the point, Doug is no stranger to the higher fungi. He spent 22 years teaching chemistry at the University of Michigan, and during that time became acquainted with morels and boletes in the local woods. He found this collection somewhere north of Bellingham. When pressed for details, he replied 'where Jack Waytz finds his matsutakes'. End of story.

Laetiporus gilbertsonii has caps up to 20 cm. wide, 15 cm. deep, and 3 cm. thick. Each one of these larger caps can weigh a pound by itself. A cluster might weigh 50-60 pounds. They are fan shaped, dry, and rugose to

appressed fibrillose, or radially wrinkled. The color is pale pinkish orange to salmon-orange, often a little paler at the margin. The caps can become tan or light brown in age. There is no stem or a short, lateral one. The pore surface is a brilliant lemon yellow. The pores are 2-4 per mm., rounded at first, then angular in age. They weep in wet weather, producing colored water droplets. The tubes are pale yellow and 1-5 mm. long. The cap context is pale yellow. The spores are buff to white. The odor is reported as musky or like eggs. The taste is mild becoming sour in age. Fruiting bodies are usually found shelving off stumps or logs, but near the ground they are often in a rosette pattern. In age, they fade in color, and are no longer edible.

At least that's the conventional wisdom. What I have noticed over the years is that our local species of Laetiporus are much of the time inedible even when fresh. Doug's specimens fit into this category. The caps were only 2 mm. thick at the margins thickening to 7 mm. at the basal point of attachment. They seemed perfectly fresh but were too woody to be digestible. The specimens found by Jack on conifer wood measured 5-6 mm. thick at the cap margin and increased to 2 cm. thick at the point of attachment. They were edible, of good flavor, but had a mealy, unattractive texture. The ones that are superb edibles are $1-1\frac{1}{2}$ cm. thick at the margins. They usually have a bright yellow band at the margin, concolorous with the pore surface. About a decade ago I found a break of the thicker form out on Matia Island in the San Juans. It was the high point of our cruise. We sautéed them in butter and onions, added cream and sherry, and ended up with an approximation of Lobster Newburg.

Sadly, some people are allergic to Laetiporus. *Laetiporus conifericola* and *Laetiporus gilbertsonii* fruiting on eucalyptus are the usual culprits. Arora warns that they should never be eaten raw, while Lincoff reports that some allergic reactions have resulted in swollen lips.

Undeterred by the swollen lip syndrome or perhaps attracted by it, Fungi Perfecti, a company in Olympia, Washington, sells growing kits of *L. conifericola*. If you don't have a conifer stump to inoculate on your property, they suggest burying a conifer log vertically in sawdust, gravel, or sand. The fruiting bodies will appear in 6-12 months.

On his website, www.MushroomExpert.com, Michael Kuo states that *Laetiporus gilbertsonii* can fruit on dead or living hardwoods. They are morphologically indistinguishable from other species of Laetiporus except for slightly smaller spores, 5-6.5 x 3.5-4.5 microns for *L. gilbertsonii* compared to 6.5-8 x 4-5 for *L. conifericola*. Only three spores were found when Jack's *Laetiporus gilbertsonii* was subjected to the microscope. Not enough for government work.

Unfortunately, spores are not always visible in the microscope. They can only be found when sporulation is going on. Polypores sporulate depending on atmospheric conditions. Humidity and substrate are both factors in sporulation. *Laetiporus gilbertsonii* can appear in hot, dry weather, but it won't produce spores if the humidity falls below 50-60%. Perennial polypores have a continuous development of basidia over time periods that vary from several days to many years.

All of this may explain why, after three hours of agonizing suspense over the microscope, I was not able to find one spore when examining one of Doug's specimens. Instead I found little piles of crystals scattered here and there in the hymenium, many of them resembling rectangular glass shards. It's the same problem with the basidia. They are often even harder to spot than the spores. So when you find drawings of the basidia accompanying a polypore description, that mycologist might have gone to hell and back in order to find them.

The variation in relative thickness and edibility of the fruiting bodies of our western Laetiporus species remains a mystery to me. Are they more edible when fruiting on fir as opposed to hemlock? Does the relative moisture inside the host stump play a part? Or does the degree of heart rot decay? Jack Czarnecki theorizes that either an arid environment or an ageing process that moves along faster than we think is responsible for the inedibility of most finds of Laetiporus. What will be interesting to discover is if Doug returns to the same log next summer and finds *Laetiporus gilbertsonii* with much thicker fruiting bodies.

Dr. Orson Miller wrote that *Laetiporus gilbertsonii* can often be bitter and inedible on eucalyptus. It's just a matter of luck if you find it at the right time on the right host with the right thickness.

Finally, on behalf of the club, we would like to thank Doug Morrison for bringing this species to our attention, and Jack Waytz for gathering other specimens for comparisons.

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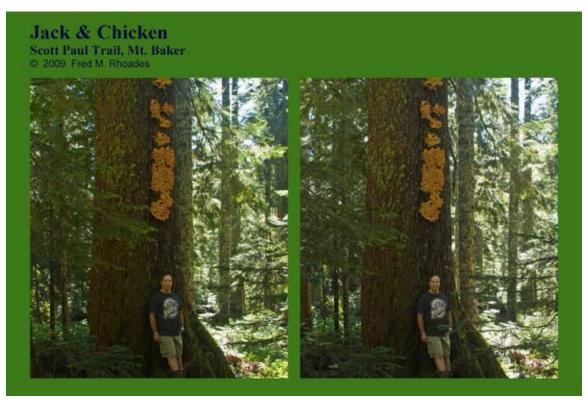
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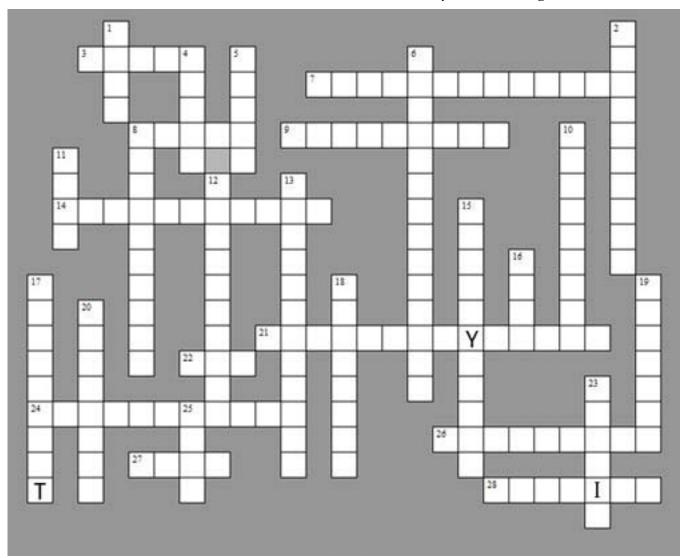
This mushroom of the month proved to be quite controversial. It was first identified as *Laetiporus conifericola*, but then Doug Morrison reported that it was found amoungst an alder grove with no conifers in sight. He gathered up a wood chip from the stump that the mushroom was growing on, and Buck delivered it to Fred, who examined it under the microscope and indeed confirmed that the chip was hardwood, verifying the identification of *Laetiporus gilbertsonii*. -Jack



This 7-foot monster fruiting is on a 1000 year old hemlock a good way up the Scott Paul Trail and since it is on hemlock, it is *Laetiporus conifericola*. Check it out with a 3-D apparatus.

Mushroom Crossword Puzzle

Furnished by: Dan Heimbigner



ACROSS

- 3 At the base of every Amanita.
- 7 A sweet parasite (2 words).
- 8 "Morchela"; to correct my spelling you need...
- 9 Red hots and dirty socks.
- 14 A give and take relationship.
- 21 Agarics, Chanterelles, Boletes...
- 22 Head is to human as ___ is to mushroom.
- 24 Oregon's state mushroom.
- 26 Running down the stalk.
- 27 Turkey tail, Bear's head, Lion's _____.
- 28 Another name for a "King".

Check out the website for the solution, www.northwestmushroomers.org

DOWN

- 1 A woody polypore.
- 2 Hideous .
- 4 Author of Mushrooms Demystified.
- 5 What do mushrooms and fish have in common?
- 6 Seafood on a tree (2 words).
- 8 One who studies fungi.
- 10 Latin for "bald head".
- 11 Acronym of our club.
- 12 A bad hair day (2 words)
- 13 A glowing halloween icon, & a mushroom (~2 words).
- 15 Morels, Truffles, Elfin Saddles...
- 16 Gills not attached to stalk.
- 17 Becoming yellow.
- 18 A delignifying decay (2 words)
- 19 A puff ball game (described by David Arora).
- 20 Santa's favorite species.
- 23 Shoot! I really
- 25 Worn on your finger or on a mushroom.

2009 Fall Show Species List

GILLED MUSHROOMS

SPORES WHITE

(1) AMANITA

Amanita constricta

Amanita gemmata

Amanita muscaria

Amanita muscaria v. formosa

Amanita pachycolea

Amanita smithiana (A. solitaria)

(1) LIMACELLA (WITH AMANITA)

Limacella roseicrema

(2) ARMILLARIA

Armillaria ostoyae (A. mellea)

Armillaria sinapina (A. mellea)

(2) Cystoderma (WITH ARMILLARIA)

Cystoderma amianthinum

Cystoderma fallax

Cystoderma granulosum

Cystoderma terreyi (C. cinnabarinum)

(3) CLITOCYBE

Clitocybe avellaneoalba

Clitocybe clavipes

Clitocybe connata (C. dilatata)

Clitocybe maxima

Clitocybe nebularis

Lepista (Clitocybe) irina

(3) LYOPHYLLUM (WITH CLITOCYBE)

(4) COLLYBIA

Baeospora myosura

Collybia bakerensis

Gymnopus (Collybia) acervatus

Gymnopus (Collybia) confluens

Gymnopus (Collybia) dryophilus

Gymnopus (Collybia) fuscopurpureus

Gymnopus (Collybia) peronata

Gymnopus sp.

Gymnopus sp.

Gymnopus sp.

Rhodocollybia (Collybia) butyracea

Rhodocollybia prolixa var. distorta

Rhodocollybia (Collybia) maculata

Strobilurus (Collybia) albipilatus

Strobilurus (Collybia) trullisatus

(4) FLAMMULINA (WITH COLLYBIA)

(5) Hygrophorus

Hygrocybe (Hygrophorus) conica

Hygrocybe (Hygrophorus) miniatus

Hygrocybe (Hygrophorus) subceracea

Hygrophorus bakerensis Hygrophorus camarophyllus Hygrophorus piceae

(6) LACTARIUS

Lactarius alnicola

Lactarius glyciomus

Lactarius hysginus var. americanus

Lactarius kaufmanii

Lactarius luculentus

Lactarius pallescens

Lactarius pseudomucidus (L. mucidus)

Lactarius repraesentaneus

Lactarius rubrilacteus (L. sanguifluus)

Lactarius rufus v. parvus

Lactarius subflammeus

(7) Russula

Russula abietina

Russula bicolor

Russula brevipes

Russula brevipes var. acrior

Russula brunneoviolacea

Russula cremoricolor

Russula eleaodes

Russula fragilis

Russula gracilis

Russula occidentalis

Russula olivacea

Russula silvicola (R. bicolor)

Russula veternosa

Russula xerampelina

(8) LEPIOTA

Chlorophyllum (Lepiota) rachodes

Lepiota rubrotinctoides (L. rubrotincta)

Leucoagaricus leucothites (Lepiota naucinus)

(9) MYCENA

Hemimycena (Mycena) delicatella

Mycena amicta

Mycena epipterygia

Mycena haematopus

Mycena leptocephala

Mycena pura

Mycena sanguinolenta

Mycena sp.

(9) MARASMIUS (WITH MYCENA)

Marasmius oreades

(9) OMPHALINA (WITH MYCENA)

Chrysomphalina aurantiaca (Omphalina luteicolor)

(9) XEROMPHALINA (WITH MYCENA)

Xeromphalina campanella

(10) PLEUROTUS

Panellus longinquus
Panellus serotinus
Panellus stipticus

Pleurocybella (Pleurotus) porrigens

Pleurotus dryinus

Pleurotus populinus (P. ostreatus)

Pleurotus pulmonarius (P. ostreatus)

(11) TRICHOLOMA

Tricholoma auratum
Tricholoma flavovirens

Tricholoma magnivelare (Armillaria ponderosa)

Tricholoma pessundatum Tricholoma ponderosum Tricholoma saponaceum

(11) TRICHOLOMOPSIS (WITH TRICHOLOMA)

Tricholomopsis rutilans

(11) CALOCYBE (WITH TRICHOLOMA)

(11) Laccaria (WITH TRICHOLOMA)

Laccaria amethysteo-occidentalis (L. amethystina) Laccaria bicolor

Laccaria laccata

(11) LEUCOPAXILLUS (WITH TRICHOLOMA)

Leucopaxillus albissimus

Leucopaxillus gentianeus (L. amarus)

(11) MELANOLEUCA (WITH TRICHOLOMA)

Melanoleuca melaleuca

(12) PINK SPORES (see also Lepista in Clitocybe)

Alboleptomia sericella

Leptonia sp.

Macrocystidia cucumis

Pluteus cervinus

Pluteus flavofuligineus

BROWN SPORES

(13) AGROCYBE

(13) BOLBITIUS (WITH AGROCYBE)

(13) CONOCYBE (WITH AGROCYBE)

Conocybe sp.

(14) CORTINARIUS

Cortinarius alboviolaceus Cortinarius anomalus Cortinarius croceofolius Cortinarius (Rozites) caperatus Cortinarius glaucopus v. olivaceus Cortinarius herbarum
Cortinarius latus
Cortinarius malicorius
Cortinarius muscigenus
Cortinarius sp.
Cortinarius sp.
Cortinarius traganus

(15) GALERINA

Galerina marginata (G. autumnalis, G. venenata) Galerins sp.

(15) GYMNOPILUS (WITH GALERNIA)

Gymnopilus aeruginosus Gymnopilus penetrans Gymnopilus punctifolius Gymnopilus sapineus

Gymnopilus junonius (G. spectabilis)

(15) CREPIDOTUS (WITH GALERINA)

Crepidotus applanatus Crepidotus epibryus (C. herbarum) Crepidotus mollis

(15) Paxillus (with Galerina)

Paxillus involutus

Tapinella (Paxillus) atrotomentosa

(16) **INOCYBE**

Inocybe albodisca Inocybe floculosa Inocybe geophylla

Inocybe hirsuta v.maxima

Inocybe lilacina Inocybe napipes Inocybe pudica Inocybe sororia

Inocybe stellatospora

Inocybe sp. Inocybe sp.

(16) HEBELOMA (WITH INOCYBE)

Hebeloma mesophaeum

Hebeloma incarnatulum (H. crustuliniforme)

(16) Tubaria (with Inocybe)

(17) PHOLIOTA

Pholiota destruens Pholiota limonella Pholiota squarrosoides Pholiota terrestris Pholiota sp. Pholiota sp.

(17) PHAEOLEPIOTA (WITH PHOLIOTA)

Phaeolepiota (Pholiota) aurea

CHOCOLATE OR PURPLE BROWN SPORES

(18) AGARICUS

Agaricus campestris Agaricus comptulus Agaricus hondensis

Agaricus moelleri (A. praeclarisquamosus)

Agaricus nivescens Agaricus silvicola Agaricus sp.

(19) HYPHOLOMA

Hypholoma (Naematoloma) capnoides Hypholoma (Naematoloma) fasciculare Hypholoma (Naematoloma) marginatum (H. dispersum)

(20) PANAEOLUS

(20) PSATHYRELLA

Psathyrella gracilis Psathyrella multipedata

(20) PSILOCYBE

Psilocybe cyanescens

(20) STROPHARIA

Stropharia aeruginosa Stropharia ambigua Stropharia aurantiacum

BLACK OR GRAY SPORES

(21) COPRINUS

Coprinellus (Coprinus) micaceus Coprinopsis (Coprinus) atramentaria Coprinopsis (Coprinus) lagopus Coprinus comatus

(22) Gomphidius

Gomphidius oregonensis Gomphidius subroseus

(22) CHROOGOMPHUS (WITH GOMPHIDIUS)

Chroogomphus tomentosus

NON GILLED FUNGI

CHANTERELLES

(23) CANTHARELLUS

Cantharellus formosus Cantharellus subalbidus Cantharellus umbonata

(23) Craterellus (Cantharellus) tubaeformis

(23)

Gomphus clavatus Gomphus floccosus Gomphus kaufmanii

(24)CORALS & CAULIFLOWER

(24Clavulina cinerea Clavulina cristata

(24)) Ramaria acrisiccescens Ramaria flavigelatinosa Ramaria rasilispora Ramaria rubrievanescens Ramaria vinosimaculans

(24) Sparassis crispa (S. radicata)

(24) Thelephora palmatus Thelephora terrestris

(25) BOLETES

Boletus barrowsii Boletus chrysenteron Boletus edulis Boletus mirabilis Boletus (Xerocomus) zelleri

(25) Leccinum halopus Leccinum rotundifolia Leccinum scabrum Leccinum sp.

(25)

Suillus caerulescens Suillus lakei Suillus luteus

(26) PUFF BALLS

Morganella (Lycoperdon) pyriformis Scleroderma cepa Scleroderma verrucosum

(26) False Truffles (with Puffballs)

(27) BIRD NEST FUNGI (WITH PUFFBALLS)

Nidula candida Cyathus striatus

(28) JELLY FUNGI

Calocera viscosa
Pseudohydnum gelatinosum
Tremella hirsuta
Tremella mesenterica

(29) TOOTHED (SPINED) FUNGI

Hericium abietis

Hydnellum aurantiacum Hydnellum caeruleum Hydnum (Dentinum) umbilicatum

(30) POLYPORES & ALLIES

Albatrellus ellesii
Albatrellus hirtus
Bonderzewia mesenterica (B. montana)
Coriolus hirsutus
Fomes fomentarius
Fomitopsis (Fomes) pinocola
Ganoderma applanatum
Ganoderma oregonense

Janoporus (Polyporus) hirtus?
Laetiporus conifericola (L. sulphureus)
Phaeolus schweinitzii
Polyporus badius
Stereum gausapatum
Stereum hirsutum
Tyromyces chioneus

(31) ASCOMYCETES

CUP FUNGI (MORELS, ELFIN SADDLES, ETC.)

Aleuria aurantia
Chlorociboria aeruginascens
Cyathipodia cupuliformis
Gyromitra infula
Helvella crispa
Helvella elastica
Helvella lactea
Otidea onotica
Peziza repanda

FLASK FUNGI

Hypomyces lactifluorum Hypomyces leuteovirens Rhytisma punctatum Xylaria hypoxylon Xylaria polymorpha

TRUFFLES

Leucangium (Picoa) carthusianum Tuber gibbosum

A Note From Fred:

Stimpson Family Nature Reserve mushroom inventory

For nearly 20 years Dr. Fred Rhoades and members of Northwest Mushroomers have maintained an inventory of mushroom species observed in the Stimpson Family Nature Reserve. The inventory currently includes 338 species plus a few slime molds. Such lists are valuable as a record of what occurs here but also documents long-term patterns of occurrence. The Reserve is managed by Whatcom County Parks & Recreation and includes parcels owned by the Washington Department of Natural Resources, Whatcom Land Trust, the City of Bellingham and Whatcom County. Dr. Rhoades has recently renewed an understanding with the property owners to allow us to continue this work with certain restrictions on how it is to be done. Anyone who might be interested in helping on this project is urged to contact Dr. Rhoades (fmrhoades@comcast.net).