

MushRumors

The Newsletter of the Northwest Mushroomers Association

Volume 26, Issue 6

December 2015 - January 2016

2015 Fall Mushroom Season Ends on a High Note

Fall 2015: After a Slow Start, Filled with Surprises

By Jack Waytz

It took a while for the mushrooms to get started after fully three months of unprecedented hot, dry conditions in northwest Washington, but the season ended with a healthy proliferation of species throughout our area, as evidenced by the number of species represented at the Northwest Mushroomers Association Fall Wild Mushroom Show in mid-October. Things only improved from there, as the rains came with volume and frequency, providing for a satisfying variety of mushrooms both rare and common in our area. The season extended well into December, as Dick Morrison reported having fresh chanterelles for Christmas dinner!

There was an interesting mix of late and early season mushrooms occurring simultaneously. A plethora of *Russulas*, normally appearing at the beginning of the fall season, could be observed sharing habitat with a very robust fruiting of *Cratererellus tubaeiformis*, the winter, or yellowfoot,

Photo by Jack Waytz



Leccinum archtostaphyli in November

chanterelle. After a paltry showing at the height of the season, king boletes were found in considerable number in urban settings throughout the area.

Cauliflower mushrooms were being turned up into December, even past the first frost, to include one 6 pounder that was nearly completely frozen, but still in very fresh shape! This is far later than I have ever observed this mushroom.

If the unusually long stretch of dry weather at the zenith of the summer had a negative effect on the mycological features of the area, and it certainly seemed to have, it was on the density of mycorrhizal species in our forests. Fruitings of mycorrhizal

mushrooms were erratic in the context of normal fruiting times, occurring sporadically, whenever and wherever close to normal conditions were met, and vastly confined

Photo by Jack Waytz



Boletus edulis var. *grandedulis*

Inside

<i>Cranberry Lake/Whidbey Island Foray report</i>	2
<i>Mushroom of the Month</i>	5
<i>Mushroom Cookery book review by Buck McAdoo</i> ...	8
<i>Wild Mushroom Recipes</i>	9
<i>Mushrooming in Tibet by Buck McAdoo</i>	10

to microhabitats, in which a few fruiting bodies would appear. The mushrooms then would degrade quite quickly, their life cycle significantly accelerated from what is normally observed.

As we observed in 2012, another year with an extended period of dry hot weather, the wood dwelling fungi seemed to thrive in these circumstances. There were two separate mass area fruitings of *Armillaria melea*, one when the rains first came, then another uncharacteristically quite late in the season. These area wide fruitings

Photo by Jack Waytz



Psilocybe cyanescens

were as prolific as any that I have seen in 15 years of foraging in these forests. Another group of mushrooms that found the unusual weather conditions vastly to their liking were those in the *Psilocybe* group. Not only was there a proliferation of fruiting bodies in habitats where they are normally found, there were sightings virtually everywhere, where even a few elements of their preferred habitat markers were present. In some cases, literally acres of *Psilocybe cyanescens* were found virtually carpeting large areas of riparians, especially where alder chips had been used as protective mulch for the new trees. Not only were these fruitings of a far higher density than is usually observed, they endured from the beginning of October, through the first hard freeze at the end of the third week of November, fruiting continuously over that extended stretch of time. *Psilocybe cubescens*, *P. stuntzii*, and *P. baeocystis* were also found in remarkable numbers throughout northwest Washington.

Overall, the 2015 fall mushroom season generated a high degree of interest, definitely in terms of the unexpected, which as we are constantly reminded by our fungal friends, we should come to expect.

Photo by Jack Waytz



Psilocybe stuntzii

Cranberry Lake - Whidbey Island Foray November, 2015 By Christine Roberts

Photo by Buck McAdoo



Mysterious polypore found by Bruce Armstrong, currently under study by Dr. Ginns

As the windscreen wipers fought to clear the torrential rain as Sue drove Fred, Buck, myself and Bob down to the Whidbey Island foray, Fred decided that his time would be best spent drinking coffee with Claude Dilly by the fire in the picnic shelter, putting names on the soggy finds as they were brought in. Buck, more optimistic, thought that we were heading for the eye of the storm

and that we would have a patch of blue sky above us. "Dream on," I said.

As we pulled into the parking lot the rain had ceased and the lure of the woods exceeded that of the nice log fire Claude and Margaret had got going. Fred and his entourage went to Hoypus Point. Bob and I and several others decided to explore the picnic area and several trails nearby. We soon had a basket full of assorted fungi including some very nice *Lepista nuda*, which were eaten in a cream sauce poured on sauteed bacon and chicken: quite tasty! As we gathered back at the shelter we were hard pressed to keep up with naming the influx of mushrooms, and a few got away without labels.

Lots of photographs were taken of the amazing variety, and at the end, I took a big wodge of labels home to transcribe, it took several hours to get them to unstick from each other and to check and list them all. Some folks took some fungi home for further research, so we may yet have more species to list.

Photo by Buck McAdoo



Phellinus punctatus

Gilled mushrooms

- Agaricus c.f. albolutescens
- Agaricus augustus
- Agaricus 'moelleri'
- Amanita muscaria (=A. ameromuscaria)
- Amanita pantherina
- Amanita silvicola
- Ampulloclitocybe clavipes (=Clitocybe clavipes)
- Cantharellula umbonata
- Cantharellus formosus
- Chlorophyllum brunneum
- Clitocybe dilatata
- Clitocybe odora
- Clitopilus prunulus
- Coprinus comatus
- Cortinarius sp.
- Cortinarius neosanguineus (= sanguineus)
- Cortinarius mutabilis
- Cortinarius obtusus
- Gomphidius oregonensis
- Gomphdeus subroseus
- Gymnopus fuscopurpureus
- Hebeloma crustuliniforme
- Hebeloma praeolidum
- Hemimycena delicatella
- Hygrocybe coccinea (=Hygrophorus coccineus)
- Hygrocybe conica
- Hygrocybe pratensis (=Camarophyllum pratensis), also var. pallidus
- Hygrophoropsis aurantiaca
- Hygrophorus bakerensis

CONTACT INFORMATION

NMA
P.O. Box 28581
Bellingham, WA 98228-0581
www.northwestmushroomers.org

The Northwest Mushroomers Association meets 7–9 p.m. on the second Thursdays of Apr, May, June and Sept, Oct and Nov. Meeting location is the downtown Bellingham Public Library.

We will inform you in advance of any changes in time or venue. *Note: the April 2016 meeting will be held in the Fireplace Room at the Fairhaven Library.*

Fungal forays and field trips are scheduled for the Saturday after each meeting. To stay apprised of forays, events and more, please join our googlegroups email list by signing up as a member.

Membership dues are \$15 for families and individuals and \$10 for students. Please make checks payable to NMA and mail "Attn: Membership" to the address above, or use Paypal online at northwestmushroomers.org/join-or-renew-membership/

NMA OFFICERS AND VOLUNTEERS

- Interim President: Brennen Brown**
brennen_james@yahoo.com
- Vice President: Christine Roberts**
- Treasurer: Andrea Miner**
- Secretary: Linda Magee**
- Book Sales: Margaret Sullivan**
360-724-3158 or maggie@fidalgo.net
- Membership: Darrell Lambert**
lambert.darrell@gmail.com
- Field Trip Coordinator: Bruce Armstrong**
360-201-2295 or bruce.armstrong45@gmail.com
- Science Advisor: Dr. Fred Rhoades**
fmrhoades@comcast.net
- Web Site Manager: Erin Moore**
chanterellerin@gmail.com
- Newsletter Editor: Jack Waytz**
360-752-1270 gandalf5926@comcast.net

NEWSLETTER

MushRumors is published in the months of March, June, September, November and January online at northwestmushroomers.org. Club members are encouraged to submit stories, photos, recipes and artwork. Submissions should be made two weeks prior to the month of publication.

For newsletter content or comments, contact editor Jack Waytz above or mail to:
MushRumors c/o Jack Waytz
P.O. Box 28581, Bellingham, WA 98228-0581

Hygrophorus piceae
 Hypholoma capnoides
 Hypholoma fasciculare
 Inocybe geophylla
 Inocybe kauffmanii
 Inocybe lilacina
 Inocybe olympiana
 Inocybe whitei (=pudica)
 Laccaria amethysteo-occidentalis
 Laccaria bicolor
 Laccaria laccata
 Lactarius deterrimus
 Lactarius luculentis
 Lactarius pallescens
 Lactarius pseudomucidus
 Lactarius rubrilacteus
 Lepiota c.f. oculata
 Lepista nuda
 Leucoagaricus rubrotinctus (= L. rubrotinctoides)
 Leucopaxillus gentianeus
 Lyophyllum decastes
 Marasmiellus candidus
 Marasmius plicatilis
 Mycena leptocephala
 Mycena rubromarginata
 Mycena subcana
 Nolanea sericea
 Pholiota terrestris
 Psathyrella gracilis
 Psilocybe pelliculosa
 Russula americana
 Russula cessans
 Russula brevipes var. brevipes
 Russula brevipes var. acrior
 Russula densifolia
 Russula silvicola
 Russula sphagnophila
 Russula stuntzii
 Russula xerampelina

Strobilurus albopilatus
 Stropharia ambigua
 Tricholoma equestre (= T. flavovirens)
 Tricholoma muricatum gp.
 Tricholoma saponaceum
 Tricholomopsis decora

Boletes

Boletus chrysenteron
 Boletus zelleri
 Suillus caeruleus
 Suillus lakei

Polypores

Fomitopsis cajanderi
 Fomitopsis pinicola
 Ganoderma oregonense
 Ganoderma megaloma

Toothed fungi

Hydnellum scrobiculatum var. zonatum
 Hydnum umbilicatum
 Pseudohydnum gelatinosum
 Sarcodon fuscoindicus

Corals, jellies etc.

Clavulina cinerea
 Clavaria fragilis (= Clavaria vermicularis)Clavulinop-
 sis fusiformis
 Ramaria stricta
 Thelephora palmata
 Thelephora terrestris
 Dacrymyces chrysospermus (= D. palmatus)

Ascomycetes

Aleuria aurantia
 Gyromitra infula
 Helvella vespertina (was H. lacunosa)
 Hypomyces lactifluorum (lobster)
 Peziza 'repanda'

Mushroom of the Month: *Stropharia caerulea* (Kreisel) By Dr. Dick Morrison and Buck McAdoo

Photo by Dick Morrison

It isn't every season that a mushroom club is in the midst of its annual fall show when a member saunters into the big room with a jewel like *Stropharia caerulea*. Perhaps feeling a little claustrophobic among the event crowds, WWU mycology student Caleb Brown decided to roam around Bloedel-Donovan Park for a little fresh air. Lo and behold, a little time passes and he finds a cluster of *S. caerulea* in old wood chip mulch. The date? October 18, 2015. A small posse of us went back out there to find more, and the photo in Fig.1 shows the result from that occasion.



Fig. 1 - *Stropharia caerulea*

When you spot a mushroom this beautiful you wonder how the term 'toadstool' ever came into use.

The following description of *S. caerulea* is taken from Kreisel (7), who rescued the species concept from the taxonomic trash bin, and Watling & Gregory (23) who produced their typically excellent species description:

Field Characters:

Cap – 3-12 cm wide, convex expanding to plane, often with a slight umbo. Bluish-green to sky blue at first, soon fading to yellowish-green or ochre in large patches. Pale straw to buff in age, the margin remaining pale bluish to blue-green. Surface viscid to glutinous with a thin separable epidermal pellicle. The sparse white velar scales on the cap soon disappear.

Gills – Adnate to emarginate with a tooth, greenish when young, remaining pale for some time before turning pale vinaceous, finally umber to snuff-brown in age. The gill edge the same color as the gill face.

Stem – 4-10 cm long and up to 1.2 cm thick. Greenish-blue to sky blue, soon discoloring whitish to pale buff in age, the apex remaining white pruinose. Striated silky fibrillose below the apex. There is an indistinct annulus around mid-stem forming a fibrillose-floccose ring zone that quickly disappears. A few smallish white scales occur above the equal to slightly clavate base, which often has white mycelium strands into the substrate.

Spore Deposit – Snuff-brown to umber, without purple tones.

Odor & Taste – Taste pleasant, odor "mushroomy" to faintly acid-pungent.

Habitat – Scattered in deciduous to mixed woods, margins of woods, along paths, in pastures or landscaped areas with wood chips and organic matter.

Microscopic Characters:

Pileipellis – A cuticle of narrow, filamentous, thin-walled hyphae less than 5 microns wide in a gelatinized matrix. Clamp connections present.

Gill Trama – Of somewhat inflated interwoven hyphae. Clamps present.

Basidia – 4-spored, clavate.

Photo by Buck McAdoo



Fig. 2 - *Stropharia caerulea*

Spores – Ellipsoid to ellipsoid-ovate, smooth walled, light brown, 7-11 x 4.4-5 microns.

Cheilocystidia – Chrysocystidia (cystidia with yellow refractive contents) numerous along gill edges, fusiform to slightly lageniform (long necked), 28-55 x 10-16 microns. Sometimes mixed with claviform cells.

Pleurocystidia – Chrysocystidia, shape and size similar to cheilocystidia or more fusiform (tapered at each end).

Stipitipellis – Hyphae on the stem cylindrical, vertically parallel, measuring 8-12.5 microns wide.

Caulocystidia – A few at stem apex only.

The photo in Fig. 2 depicts an earlier collection Buck found on the embankment of the Herald Building parking

lot in the fall of 2013. The caps were Disneyesque, with what looked like turquoise scales on a straw colored ground. That was the first impression one had. Jamming on the brakes Buck made the collection. Back in the lab the microscope revealed a different story. If these were scales, the pileipellis would have been bristling with extended hyphal ends or pileocystidia, but there were none of either. Instead, he saw a gelatinous matrix 350 microns thick with broken shards of hyphae scattered throughout it. The pileipellis was actually a cutis with clamps. The ‘scales’ were nothing more than areolate patches caused by the process of drying up.

Known popularly as the Blue-Green Slimehead (9) or the Blue Roundhead (5,14), *S. caerulea* is found in Spain, France, Germany, throughout the British Isles, Scandinavia, Newfoundland, and in the Pacific Northwest, fruiting from September into November. It is a saprobe, feeding on and breaking down non-living organic matter in waste places, abandoned gardens, margins of woods, wood chips, etc., is often found under nettles, and has even been reported on sand dunes (5, 7, 8, 14, 20, 23).

S. caerulea has a number of blue-green look-alikes in the Pacific Northwest that also fade hygrophanously to ochre-straw color as they age. Among these is the strikingly beautiful *S. aeruginosa* (Fig. 3), which differs by retaining its blue-green cap color longer, has a cap margin more heavily hung with white appendiculate



Stropharia aeruginosa

velar remnants, a stem with a more persistent and showy ring, a more scaly stem, and gills which are vinaceous brown with a whitish edge. Microscopically, it differs in having often capitate cheilocystidia with no chrysocystidia among them.

A second local look-alike is the more slender, smaller *S. pseudocyanea* (Fig. 4). The glutinous blue-green caps are only up to 3 cm wide and fade quickly to straw color or yellowish-buff in age. The gill edges are dentate, the thin stipe is covered with white fibrils and scales, and there is white mycelium at the base. It is typically found on the fringes of marshes among tall grasses after rains. Peter Orton (15) reports that it has such a soft stem that it is hard to keep it from getting squished when picked. It also has a strong odor of black pepper, thus leading to its common name, ‘Peppery Roundhead’ (9, 14).



Stropharia pseudocyanea

Pholiota subcaerulea (Fig. 5) finishes up the local look-alikes. It was first described by Smith & Hesler from Portland, Oregon in 1968 (19). The viscid gray-green caps run up to 4 cm wide but soon fade to cinnamon-buff in blotches. The gills are pale brown, aging to dull cinnamon-brown, and the spore deposit is rusty instead of dark brown. The habitat is grassy areas or with debris under conifers in the fall. The photo here depicts a solitary specimen found at Sandy Point in 1981. It is an extremely rare species. We haven’t seen it since. (Perhaps worthy of note, the 2003 Key Council key to Pacific Northwest species of *Pholiota* lists this as a synonym of *S. pseudocyanea* (18), but the authoritative web site Species Fungorum (6) now accepts *P. subcaerulea* as the correct name.)

Pholiota subcaerulea



Pholiota subcaerulea

The taxonomic history of *S. caerulea* winds along a convoluted and sometimes befuddling trail. The species was initially named *Agaricus politus* in 1788 by the

English mycologist and illustrator James Bolton (1) from specimens near Halifax, England. Then, in 1791 Bolton (2) named another bluish English mushroom of uncertain provenance *A. cyaneus*. In 1953 the Finnish mycologist Tuomikoski (22) redescribed Bolton's *A. cyaneus* and transferred it to the genus *Stropharia* as *S. cyanea*. This was accepted by several eminent mycologists at the time. However, in a 1980 paper the German mycologist Hanns Kreisel (7) concluded that Tuomikoski (22) wrongly applied (i.e., misapplied) the name *S. cyanea* to what was actually *S. aeruginosa* after viewing illustrations by Bolton in an 1820 publication (3). He then erected *S. caerulea* as a new species, listing *A. politus* Bolton and Tuomikoski's *S. cyanea* as synonyms. As a side note, the *A. cyaneus* of Bolton in 1791 (2) was rendered an illegitimate name because previously in 1784 Buller had used this same name for another species. By international botanical nomenclature rule, two different taxa can't have the same name, and the earliest name has precedence.

Although, *S. caerulea* is the accepted current name and *S. cyanea* a synonym (6, 7, 10, 15, 23), some mushroom resources give *S. cyanea* as the accepted name and *S. caerulea* as a synonym (12, 17). And, to add a further wrinkle, in 1995 Noordeloos (13) transferred the blue colored *Stropharia* species to the genus *Psilocybe*, leaving us, for a moment, with *P. caerulea*. This transfer has not been accepted by the mycological community, however, so the blue species remain in *Stropharia*. Yet, it has left us with another synonym.

In Mushrooms of the Pacific Northwest, Trudell & Ammirati (21) note that collections of both *S. aeruginosa* and *S. caerulea* seem to intergrade in our area. They wonder if these two species might represent a single variable species, or possibly a third undescribed species. In the world of fungal taxonomy change seems to be the rule, so best to stay tuned.

As for the edibility of the Blue-Green Slimehead, there are few comments. Kreisel (7) described the taste as 'pleasant' but did not comment on edibility. Pegler & Spooner (16) note that *S. aeruginosa*, *S. caerulea*, and *S. albocyanea* are all poisonous. Others list *S. caerulea* as possibly poisonous (14), or fail to mention edibility (8).

Because of its blue color some have suspected psychoactive alkaloids might occur in *S. caerulea* and its relatives. In the latest Collins Fungi Guide (5), the authors mention it has both psilocin and psilocybin. Stamets (20), in discussing it as *Psilocybe caerulea*, noted it might be mildly psychoactive. Watling & Gregory (23) comment that traces of psilocybin have been found in collections from Scotland. However, the magic mushroom website www.shroomery.org (11) informs us that 'there are no psychoactive *Stropharia*, blue or otherwise'. Furthermore, some researchers on psychoactive indoles in mushrooms (4) have used *S. caerulea* as a non-active control. With the choices of known magic mushrooms available, attempting to take a trip with *S. caerulea*, *S. pseudocyanea*, or *S. aeruginosa* seems unwise at best.

Literature Cited:

1. Bolton, J. 1788. *A history of fungusses growing about Halifax 1:30 tab 30.*
2. Bolton, J. 1791. *A history of fungusses growing about Halifax, App. 3:143, t. 143.*
3. Bolton, J. 1820. *Beschreibung der um Halifax wachsenden Pilze (Tranlation: A history of fungusses growing about Halifax). Bd. IV. Berlin.*
4. Borovicka, J., et al. 2015. *Phylogenetic and chemical studies in the potential psychotropic species complex *Psilocybe atrobrunnea* with taxonomic and nomenclatural notes. *Persoonia. 34:1-9.**
5. Buczacki, S., and C. Shields. 2012. *Collins Fungi Guide-The Most Complete Field Guide to the Mushrooms and Toadstools of Britain & Europe. HarperCollins, UK.*
6. Kirk, P. (ed). 2015. *Species Fungorum. <http://www.speciesfungorum.org/Names/Names.asp>.*
7. Kreisel, H. 1980. *On the taxonomy of *Stropharia aeruginosa* sensu lato. Beihefte Sydowia 8:228-232.*
8. Kuo, M. 2015. *Stropharia caerulea. MushroomExpert.Com: http://www.mushroomexpert.com/stropharia_caerulea.html.*
9. Laessle, T. 2013. *Mushrooms. DK, London, UK. 360 pp.*
10. Legon, N. W., and A. Henrici. 2015. *Checklist of British and Irish Basidiomycota. Royal Botanic Garden, Kew, UK. <http://www.basidiochecklist.info/index.htm>.*
11. *Magic Mushrooms Demystified. 2015. <http://www.shroomery.org>*
12. Mycobank. *Stropharia cyanea Tuom: <http://www.mycobank.org>*
13. Noordeloos, M.E. 1995. *Notulae ad floram agaricinam neerlandicam - XXIII. *Psilocybe* and *Pholiota*. *Persoonia. 16:127-130.**

14. O'Reilly, P. 2011. *Fascinated by Fungi. First Nature. 450 pp.*
15. Orton, P.D. 1976. *Notes on British Agarics VI. In Notes from the Royal Botanic Garden, Edinburgh. 35: 147-154.*
16. Pegler, D., and B. Spooner. 1992. *The Mushroom Identifier. Smithmark, NY. 144 pp.*
17. Ryman, S. 2012. *Stropharia (Fr.) Quel. In: Funga Nordica, Knudsen, H. and J. Vesterholt, (eds). Nordsvamp, Copenhagen, pp. 965-970.*
18. Scates, K., and T. Gospodnotich. 2003. *Trial Key to the Species of Pholiota in the Pacific Northwest. <http://www.svims.ca/council/Pholio.htm>.*
19. Smith, A. H., and L. R. Hesler. 1968. *The North American Species of Pholiota. Hafner Publ., NY. 402 pp*
20. Stamets, P. 1996. *Psilocybin Mushrooms of the World. Ten Speed Press, Berkeley, CA*
21. Trudell, S. and J. Ammirati. 2009. *Mushrooms of the Pacific Northwest. Timber Press, Portland, OR. 349 pp.*
22. Tuomikoski, R. 1953. *Notes on Finnish Agaricales. Karstenia. 2:26-32.*
23. Watling, R., and N. M. Gregory. 1987. *British Fungus Flora 5/Strophariaceae & Coprinaceae p.p. Royal Botanic Garden, Edinburgh. 121 pp.*

Book Review of The Wild Mushroom Cookbook, Recipes of Mendocino

By Alison Gardener and Merry Winslow

Reviewed by Buck McAdoo

The *Wild Mushroom Cookbook* by Alison Gardner and Merry Winslow is just what it says it is. It's pretty wild. Even the cover gives you an inkling of what's inside. Turkey Tails on the top left corner, a basket of *Boletus edulis* on the lower right, a clump of Shaggy Manes, a bowl of chanterelles, and a full pecan, candy cap pie. Already, the question is: what are they not going to attempt?

Then you flash forward to some of the recipe titles within: Porcini Panzanella, Cocorra Mousse Tapas, Beef Pho with Matsutake, Candy Cap Sticky Buns, Admirable Mirabilis Fish, Beet and Black Trumpet Aspic. You soon understand these authors and chefs have meandered through wild mushroom culinary zones where few have tread before. Along with all these tantalizing dishes comes possibly the best Introduction to mycophagy I've ever read. In just a few pages it touches on poisonous fungi, the dangers from rotten mushrooms, allergies from mushrooms, and mushrooms that may accumulate metals due to their location. An example might be Fairy Rings picking up exhaust fumes from passing cars.

But after these obligate remarks, the sun soon shines. We read how subtle the varying flavors of wild mushrooms are, how they can stand on their own or enhance other dishes as if you have just discovered a new spice. We read that mushrooms are high on protein and minerals but low on carbohydrates and fats. There is even a paragraph on how best to harvest your wild mushrooms with minimum impact on the substrate.

Then, best of all, there is a large section simply entitled 'The Mushrooms'. Here you learn the best methods of preparation and preservation for each genus or group. You have the Hawkwing, the Shaggy Manes, the *Russulas*, the Pig's Ears, and so on. You discover which groups can be dried or frozen and how best to proceed. Even the genus *Suillus* gets its moment on stage.

The authors are two ladies from Mendocino. The very first sentence in the Forward is worth quoting here. 'The Mendocino Coast is a magical place to see and enjoy wild mushrooms.' This is no overstatement. Where else can you find *Lactarius argillaceifolius* var. *megacarpus* as large as pancakes? Where else can you find the elusive, scarlet-capped *Leccinum manzanitae* but in secret spots along this coast whose fog can produce mushrooms almost all year long? I haven't been in Mendocino since 1981. I remember spending most of a night in a very lively bar with tropical sailing buddy Daniel Fernandez. We soon learned that not far from Mendocino could be found an ancient pygmy forest where the trees were only fifteen feet tall. It was thought that the forest was located on a volcanic plateau with very little topsoil on top. If one could get permission to collect the species there, imagine the rarities within. It would be great to get back and check that out.

Meanwhile I would urge anyone into mycophagy to buy this book. It is available at Village Books in Fairhaven, but I would highly recommend our club to try to order it wholesale. It's just that good.

A Sampling of the Recipes From the Wild Mushroom Cookbook, Recipes From Mendocino

Clavariadelphus Green Bean Casserole *Serves 6*

- 1 pound green beans
- 3 onions
- 10 *Clavariadelphus truncatus*
- 1/2 cup butter
- 1/2 cup Parmesan cheese
- 1 cup breadcrumbs
- 1 cup slivered or sliced almonds

Photo by Jack Waytz



Pre-heat the oven to 350 degrees. String the beans and cut them into 2" pieces. Chop the onions, slice the mushrooms crosswise, or at a diagonal. Put the onions and mushrooms with the beans, into a large bowl. Melt 1/4 cup of the butter and pour it over the bean mixture. Add Parmesan and toss. Put the mixture into a suitable casserole dish, cover and bake for 1 hour.

Melt the remaining 1/4 cup of butter in a skillet. Fry the bread crumbs in it until they begin to brown. Remove from heat and add the almonds. When the casserole is done, sprinkle with the bread and almond topping and serve. *Recipe by Teddy Winslow*

Photo by Jack Waytz



Morels With Asparagus and Scallops *Serves 2*

- 8 morels, fresh or dried
- 1/2 small onion, chopped
- 2 teaspoons butter
- 2 cups asparagus, cut into 1 inch lengths
- 1/2 pounds scallops
- 2 cloves garlic, minced
- 1/4 cup slivered red bell peppers
- salt to taste

If mushrooms are dried, cover with hot water, soak half an hour and drain.

Cut the morels in half lengthwise and clean out any debris from inside.

Saute the onions and mushrooms in the butter over medium heat. When the onions begin to soften, add the asparagus. If using large sea scallops, add them after 5 minutes of sauteing. If using smaller, bay scallops, wait 10 minutes and add them to the pan mixture. Add the red pepper and minced garlic and saute until the scallops are just done. Don't overcook the scallops or they will become tough.

Add salt to taste and serve with rice.

About That Tibetan Mushrooming Tour *By Buck McAdoo*

Over the past decade or so, Kirkland mushroom guru Daniel Winkler has led groups to Tibet in search of mushrooms and wildflowers. I had always wanted to go, but the price seemed inhibitory. Then I heard from friends who were turned back from the border by Chinese officials. I figured if I ever wanted to see Tibet, I'd better go with a group who knew how to get there. The lure of just getting there, plus the opportunity to view exotic Asian fungi I may never meet again was too much. I not only caved in. I brought my sons and persuaded my ex-wife to go along, too.

Photo by Buck McAdoo



An icon at the summer palace

It's a well-organized tour. A day of mushrooming would be followed by a day of temple exploration. This gave me time to describe, dry, and document the mushrooms from the day before. The tour ran from July 20th through August 2nd, 2014. It turned out to be the peak fruiting period for fungi in north central Tibet. On our first foray, we made so many collections that I was up until 2 a.m. working them over with the aid of a head lamp.

The element common to both mushroom cuisine and the temples was yak butter. All mushrooms were sautéed in the stuff, and the candles lighting the rooms in the temples were made from it. Even the traditional tea featured a glob of yak butter. It was salty and therefore much easier to digest if thought of as a soup.

And by hiring Pasan and Bouchung as our respective driver and guide, Daniel made sure the trip would never be boring. The national highway was a mayhem of bikes, cars, trucks, buses, yaks, pigs, cows, and occasionally a pilgrim prostrating himself all the way to Lhasa. When you add in the curves you automatically encounter in mountainous terrain, the driver is indeed challenged to find his way through. Pasan would drive so furiously by the yaks and bicycles that Daniel suggested we think of him as a clever stunt driver in order to calm ourselves down. Bouchung was our principle interpreter of temples and monasteries. He was very enthusiastic. He would burst out with streams of English sounding words that were unrecognizable until the word 'demons', and proceed onward with more of the same. The livestock during the daily drives down the national highway were so numerous that Daniel felt the need to point out, "In most places people build fences to keep the animals out. But here they build them to keep the animals in." This also had a calming effect.

Daniel also knows his wildflowers. Melinda Brondson, a 74 year-old specialist in alpine flowers, was on the trip to see specific flowers she hadn't seen before. Daniel knew where to find them. He would have Pasan jam on the brakes on some mountain curve, then leap out to lead her to a blue poppy she had come so far to see. On one such stop I followed behind and ran into *Helvella atra*, a species I had only seen in mushroom guides.

Our first foray was about 50 minutes outside of Lhasa, the capital. We spent the morning visiting the idyllic Sera Monastery with the surrounding mountains bathed in mist. Flocks of green parrots would vanish into the trees. In the afternoon we forayed in a birch and pine forest just beyond the monastery. Daniel found *Leccinum scabrum*, *Paxillus involutus*, and several outrageous boletes we couldn't put names to. Two of these

Photo by Daniel Winkler



Photo by Buck McAdoo



are pictured here.

We drove the next day to the medium sized town of Bayi. In the market they were selling chaga at a very reasonable price. The reishi conk was also available. But the top edible in Tibet, the golden mushroom, was only available in Lhasa. This is a

species of *Floccularia* that only grows above the tree line. It is cooked in yak butter, like everything else.

Further along the national highway Daniel called for a random stop next to some yak pasture studded with spruce and oak. The oak leaves were prickly. I thought they were holly leaves and kept wondering when we would get to the oaks. It turned out to be an amazing stop. Daniel found the rare *Amanita rubrovolvata*, a species perhaps only known from Bhutan. And then in a tiny glen that harbored abandoned building materials I found a cluster of *Agrocybes* that had the stature of *Boletus edulis*. Large fruitings of the delicious *Russula cyanoxantha* were also in abundance. They looked like slate blue plates among the spruce needles.



Amanita rubrovolvata

can become more stationary. It was actually quite attractive with wooden buildings of decorative facades and tethered horses with elaborately colored saddles. Karma, the lady who ran the hotel, was a special friend of Daniel's from years past. She invited us to accompany her on a matsutake hunt the next day. It was a north facing slope. We would find matsutake and *Russulas*, but probably nothing else. We opted to search on the opposite slope. Here we found spruce with purple cones and beneath them all sorts of *Lactarius* species in the *Deliciosa* group. Further up the hillside we found a Tibetan family also hunting for mushrooms. They were just as excited as we were and knew exactly which ones to eat. Two of the most intriguing species found here were *Boletus reticuloceps* and *Galiella celebica*. The former is known for its reticulate caps. The latter is an ascomycete with a black gelatinous interior. It took three days to dry completely in the dehydrator.

On the way back down the alpine hillside, we made the acquaintance of a woman dancing in a field while waving two giant *Amanitas* in front of her breasts. I had walked right by them on the way up. They turned out to be the edible and scrumptious *Amanita hemibapha*. The stems were so long I had mistaken them for some weird Tibetan sunflowers.

Photo by Melinda Brondsen



Amanita hemibapha on display

Our destination that evening was the Hotel Randino in Lunang. This was a village constructed by the Chinese to tempt Tibetans to settle in. It is easier to tax nomadic peoples if they

Photo by Daniel Winkler



Galiella celebica

While we were out on the hunt, we learned later that a female park ranger had visited our hotel. She had heard a rumor that we might be studying mushrooms there. She made it clear to Bouchung, our guide, that we could eat the mushrooms but not study them. He showed her the king boletes and *Russulas* we were planning to eat that night. Barely mollified, she left. But we had now been forewarned. From now on we would no longer describe them in hotel lobbies where everyone could see.

After our delightful visit to Lunang, we headed for the Tsodzong Gonpa Temple located on an island in Lake Draksum. This temple was built in the 7th century. It had never burned down because they had never introduced electricity and therefore escaped the fate of many other monasteries which had succumbed to faulty wiring over time. The stairways were steep and dark. In adjoining rooms on the top floor were the two most powerful manifestations of Buddha we saw on the trip. The rooms were dimly lit by yak butter candles, but the Buddhas seemed to have red eyes and an aura of sheer power and pensiveness that had me genuflecting in and out of those chambers.

On the southwest corner of this temple stood an ancient tree that was half spruce and half willow. Two different trees must have somehow grown together until there was just one trunk. Good thing we didn't find any mycorrhizals. We wouldn't have known whether to associate them with the conifer or the hardwood part.

Lake Draksum is a beautiful place. We heard that fishing was prohibited. Foreigners were allowed to visit the area in daytime, but were not allowed to spend the night in the village nearby. We went for one final foray in the adjacent Basomtso National Forest. There were a number of Collybioid species, another variation of *Mycena pura*, and a fine colony of *Clitocybula lacerata*.

And then it was back to Lhasa. At Serkyim La Pass (15,267 feet) we stopped to visit a nomad encampment not far off the highway. A woman emerged from one of the tents with two bottles of yak yogurt. It was the strongest yogurt we ever tasted. Little mice called pikas lived in holes all around the tents. And not forty yards away, a strange Entolomoid species was found.

Back in Lhasa, we visited the famous Potala, the winter home of the Dalai Lamas. There were around 267 steps to the top, but not one of us came up with the same number. We were only allowed a certain amount of time for the ascent and descent. A Chinese flag flew over the Potala and Chinese guards dressed in orange were posted throughout.

Photo by Buck McAdoo



Cordyceps sinensis

There are many grades of this *Cordyceps*, all separated by their condition. The highest grade consists of intact specimens still attached to their caterpillars. The plastic bag of them pictured here was worth roughly \$22,000. All of the yartsa gunbu is found in alpine zones above the tree line. The time of harvest is May through June. It is now the number one export from Tibet.

All in all, a fungal expedition for the ages. You know you are in another world when the only words you can read in the local mushroom guide are the Latin names of the mushrooms.

The present Dalai Lama, now in exile, far preferred the summer palace. The Norbu Lingka is a spacious compound of many temples, each with its own priorities. Here is an icon fronting one of them.

This compound is at a much lower elevation and is not as austere as the Potala.

On our final day, Daniel led us to the Moslem quarter simply by locating the minaret of the mosque. Here we found stall after stall of yartsa gunbu, a.k.a. *Cordyceps sinensis*.

Photo by Buck McAdoo



Nomad tents at elevation

Attention Northwest Mushroomers! After 11 years as the editor of MushRumors, the exalted publication that chronicles the exploits of our club, I have decided that it is time to hand over the reigns of editor to an enthusiastic and qualified individual with a desire to be the journalist that represents our fine organization. If interested, contact me via email at: gandalf5926@comcast.net