



October 2016 – Mushroom Highlights

Newsletter for Wild Mushrooms PNW ❖ www.wildmushroomspnw.com

Upcoming Mushroom Shows and Festivals



The 17th Annual Yachats Mushroom Festival is October 21-23 in Yachats, OR. The mushroom display will be at the Lions Club on Fourth St. behind the Commons. If you can contribute specimens bring them on Friday. There will be mushroom dishes prepared at some of the local restaurants all weekend. The weekend is filled with guided mushroom walks and talks, mushroom exhibits, and a culinary mushroom growing workshop. Festival goers will also find fungi arts, culinary mushroom markets, live entertainment and lots more. www.yachats.org/MFest2016.html.

Anyone in the area of Bellevue, WA, should check out the 53rd Annual PSMS (Puget Sound Mycological Society) Wild Mushroom Show on October 29th and 30th. It will be at the Bellevue College Cafeteria, 2000 Landerholm Circle SE. You will see lots of mushroom displays, exhibits, and vendors. It is one of the largest on the West Coast and the largest PSMS event of the year. www.psms.org/show.php.

The Oregon Mycological Society have their Fall Mushroom Show on October 30th from noon until 5 PM at Miller Hall, World Forestry Center in Portland, OR. You will see beautifully displayed mushrooms



from around the region and talk to mushroom experts. There will be vendors, books for sale, mushroom cooking samples, speakers, and more.

www.wildmushrooms.org

Mt. Pisgah Arboretum Mushroom Festival in Eugene is October 30 as well. This is the 34th fall celebration of mushrooms

and the harvest season co-presented by Mt. Pisgah Arboretum, Cascade Mycological Society, and Lane Community College. The event is the largest mushroom display on the West Coast. Hundreds of locally-collected wild fungi will be on display with experts on hand to answer your questions and identify any specimens that you bring in. The festival also features a huge plant sale, a scarecrow contest, children's activities, hayrides, craft vendors, mushroom-inspired food, fresh apple cider, wine, live music. This celebration starts at 10 AM so come early before the crowds appear.

www.mountpisgaharboretum.com

Lots going on this month so mark your calendar now and plan to attend or volunteer to help at any of this year's events. To be successful the shows depend on volunteers. They are only able to put on a great show year after year because of your help. For more information check out their websites. This is a wonderful way to spend a fall day and learn more about wild mushrooms.



Grow Cultivated Mushrooms

Stropharia rugosoannulata can be cultivated. The caps get as wide as 20 cm when mature. They are considered not only edible, but choice. It is one of the largest species in this genus, successfully cultivated on composted straw or wood chips.



Growing Mushrooms in your Chicken Coop

What if you could have a chicken run that literally eats the manure that chickens leave by mixing wood chips with mushroom spawn of the King *Stropharia rugosoannulata*. This method combats both harmful bacteria and odor. The added bonus is that this mushroom is also edible. A bag of King

Stropharia runs about \$25 to inoculate 1 cubic yard of chips.

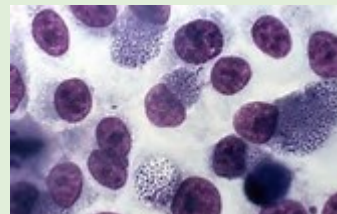
1. Layer 6-8 inches of hardwood wood chips in the chicken run. Mix in the spawn as you go. Lay down poultry wire on top.
2. On top of this filter add 3-4 inches of wood chips mixed again with the spawn. Worms attracted to the spawn come to the surface for it, inspiring the chickens to scratch and work the chips. All this mixing creates the perfect mushroom-growing area.
3. Water the run daily for the first week, then weekly, washing it down to the bottom layer where the spawn is waiting.
4. On the outside of the coop, add a foot or two of wood chips. If the coop is located near a downhill slope, make a trench to capture some of the water to slow it down. Fill with hardwood chips and spawn. The mycelium mat grows quickly spreading outward from the coop.
5. Harvests the mushrooms at the edges of the coop throughout summer and fall. Both the stalk and cap are edible.
6. Water the top layer of the wood chips weekly. Replace the entire filter yearly, and you can harvest a nice layer of soil that develops from the nutrient breakdown.

(from PSMS Newsletter, Sept. 2016, by Jennifer Wilson) Photo by M. Trappe

Hidden Parasitic Fungi in the Digestive Tract

A group of organisms called microsporidia, invade the intestinal tract of many animals, causing diarrhea in humans and immune-compromised patients more severe problems. Many individuals carry at least one of the 14 species that infect people.

These particular single-celled organisms do something that has not been observed before. They multiply by sticking host cells together. This is how they spread infection. parasitic fungi stay hidden within an organ has implication for existing drugs have not been effective against the parasites difficult it has been to detect them.



The fact that treatment, since because of how

Mushrooms and Vitamin D

Since commercial mushrooms are grown in the dark, it is somewhat odd that they are a good source of vitamin D, the sunshine vitamin. They are one of the few vegetarian sources of this vitamin which is also found naturally in cod liver oil, fatty fish such as mackerel, salmon, sardines, and tuna, or eggs and liver. It is estimated that 10 mushrooms provide 10% of the daily value of vitamin D. Recent research suggests that exposing mushrooms to UV rays for just 5 minutes could increase their vitamin D content to 100% of the RDA.

Without Fungi, All Ecosystems Would Fail

Mycelium Running by Paul Stamets states that fungi are “the grand recyclers of our planet, the myco-magicians disassembling large organic molecules into simpler forms, which in turn nourish other members of the ecological community. Fungi are the interface organisms between life and death.” Yet most of us only recognize mushrooms as small protuberances poking through the lawn or forest floor. Until recently not much was known about fungi and their important roles in our world, and how much is yet to be discovered?

Fungus Identified as Key Factor in Crohn’s Disease

This is the first time a fungus has been found as a key factor in this disease. Also linked was a new

bacterium. This groundbreaking finding was published in the Sept. 20th issue of *mBio*. This could lead to new treatments and cures for this debilitating inflammatory bowel disease. See www.sciencedaily.com for more information.

Mushroom of the Month – *Chlorophyllum rachodes*, the Shaggy Parasol

You may have learned this mushroom as *Lepiota rachodes*, but the name has changed to *Chlorophyllum rachodes*. The cap can become as large as 20 cm across and the stalk 20 cm long. The cap is rounded for a long time before becoming more flattened and has a slight central bump in age. The background color is white or dingy buff with large coarse or shaggy scales that are light brown, reddish-brown, to cinnamon-brown. Soon, they break into a concentrically arranged pattern. The smooth, toward the

The ring is crowned and orange and injured. Gills dingy brown



center is smooth at first, soon breaking up into upturned scales and becoming increasingly scaly margin. The margin is often fringed. Surface is dry. white becoming brownish in age. It is double often movable. The flesh is white but bruises then turns brownish-red especially when the stalk is free from the stalk being white to sometimes a to reddish, especially when handled.

The stalk may be club-shaped but there is a basal bulb that is usually underground but can be seen if

you dig the mushroom out. The stalk starts out stuffed when young then hollow in age. Photo by B. Pruitt



This is very tasty mushroom, but cook it thoroughly before eating since some people become ill if this is not done. Do not pick and eat *Lepiotos* or *Chlorophyllums* if growing in the woods. These look-alikes may be poisonous. *Chlorophyllum rhacodes* is usually an urban-growing mushroom found in groups or rings on the ground under conifers but also under bushes, in gardens, in compose piles, near stables, in parks and meadows, along roads and other disturbed places such as lawns. There are often several crops produced each season. If you pick them in someone's lawn be sure it has not been sprayed or chemicals applied to the area since mushrooms can concentrate these toxins. Photo by K. Scates

Stuffed Shaggy Parasol Mushrooms from the Forager Chef

The caps of *Chlorophyllum rachodes* are wonderfully concave and just begging to be stuffed with something. The stalks are interesting in that they have a different cooking time than the caps. Chopping the stalks up and cooking them for a stuffing is a great way to get by that issue. Shaggy parasols have a much better flavor than most commercial mushrooms, but you need to make sure they are thoroughly and completely cooked. Allow them to cool a bit and served just warm. Serves 4-6 as an appetizer.

Ingredients:



1 lb. young shaggy parasol mushrooms, caps unopened and stalks removed and reserved (about 12-15 mushrooms)

1 Tbsp. softened unsalted butter, plus 2 Tbsp. for finishing the dish

1 Tbsp. shallot, diced ¼ inch

1 tsp. chopped fresh thyme

2 oz. high quality slab bacon, diced ¼ inch

¼ cup toasted panko breadcrumbs, plus an additional ½ cup for finishing

the dish

1 Tbsp. fresh chopped Italian parsley

¼ cup grated grana Padano or parmigiana reggiano cheese

¼ cup dry sherry

Method:

1. Dice the mushroom stalks. Cook the bacon in a pan on medium heat to release the fat and brown lightly, then add the diced mushrooms stalks, garlic, thyme, and shallot, and cook for 2 more minutes. Season to taste with salt and pepper, then de-glaze the pan with sherry. Cook, stirring occasionally until the alcohol has mostly evaporated, then remove the mixture to a bowl and stir in the cheese, ¼ cup toasted breadcrumbs and 1 Tbsp. of softened butter.
2. Heat the oven to 375.
3. Mix the half cup of reserved, toasted breadcrumbs with the parsley, then pack the mushroom caps full of the stuffing and place in a wide baking dish or cast iron pan, top with the breadcrumb-parsley mixture, and dot with the remaining 2 Tbsp. butter.
4. Bake for 25 minutes or until thoroughly cooked and hot throughout.
5. Serve immediately.

Check out Chef Alan Bergo's website at www.foragerchef.com for some great mushrooms recipes and other information about foraging and wild mushrooms.

Someone Stole the Blob

In North Center Illinois someone stole the Blob, which was a mysterious fungal mound that spilled out of a yard more than 15 years ago and was a fixture ever since on the sidewalk in front of this home. Around Labor Day the Blob went missing. Not a scrap remains. Just a stain on the sidewalk to mark the spot where the Blob once lived. The police are mystified by the fungus thief's method of removal and what could be the person's motive. Despite its spongy appearance the mound was rock hard. You could not just bend down and pick it up. You would need a spade or some kind of tool and it was almost 3 feet long. So now this bit of history on Montrose street is gone. So many people enjoyed seeing it. Some even knelt down to take their picture with it. It was indescribable, indestructible, and now just gone. By Patti Wetli, www.dnainfo.com, Sep 21, 2015

Egypt Eases Ergot Ban on Wheat After Seller Outrage – Part 1



Egypt has lifted a ban on even trace amounts of the ergot fungus, *Claviceps purpurea*, in its wheat imports after sellers enraged by Cairo's demands boycotted, threatening the supply of the world's largest importer of the grain. This announcement by the Cabinet reinstates rules allowing imported wheat cargoes to contain up to 0.05 percent of ergot, in line with global standards. This amount of ergot fungus is supposed to be "harmless."

Claviceps purpurea is extremely poisonous if eaten by cattle or humans in products containing the infected grain (wheat, rye, barley) and can cause violent poisoning known as St. Anthony's Fire. It can produce hallucination, a burning feeling, etc. It was

the original source of LSD, the potent psychedelic drug. There are two types: convulsive and gangrenous ergotism. The first is characterized by nervous dysfunctions and the second one is where victims may lose parts of their extremities. The cure is avoidance of the fungus.

The history of ergot fungus poisonings is very interesting. Through the years there are many events linked to it including its role in the Salem Witch Hunt of 1692 where some women in Salem developed peculiar behaviors after eating ergot-contaminated food. It does have its use in medicine since it contains chemicals that can help reduce bleeding by causing a narrowing of the blood vessels.

Ergot is parasitic on the ovaries of grains and eventually replaces them. It is commonly seen projecting from the flowering parts of grasses before it falls to the ground. These are dark purple or black grain kernels, known as ergot bodies. More recently ergots produced by different strains of *Claviceps purpurea*, and those growing in different soils, may produce different ergot alkaloid compositions. This may explain the different manifestations of ergotism in different outbreaks. Less wealthy countries are more prone to being poisoned by the ergot fungus and is most common in the rye plant. In fact, its occurrence was so common that it was thought to be part of the plant until the 1850's when the true nature of ergot was understood. For more information see www.botany.hawaii.edu. Photo by H. Barnhart