

Spore-Addict Times



The Newsletter of the Pikes Peak Mycological Society

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MONTHLY MEETING:

WHEN? Monday, August 23, 2010 – The fourth Monday of the month.

WHAT TIME? We will have a mushroom identification class from 6:30 p.m. to 6:50 p.m. Please bring a mushroom book and the Kit Scates Guide to the meeting. If you can find a mushroom, make a spore print. **IF YOU DO NOT WISH TO PARTICIPATE IN THIS CLASS DO NOT ARRIVE BEFORE 6:50 P.M.**

The regular meeting will start at 7:00 p.m.

WHERE? Pikes Peak National Bank, 2401 W. Colorado Ave. (across from Bancroft Park). Enter at the door on Colorado Ave., just west of the bank door. There you will find stairs and an elevator. You may use either. The room is on the second floor near the head of the stairs.

WEBSITE: www.pikespeakmushrooms.org/

PROGRAM:

Eva Mattedi, Frieda Davis, Ashley Anderson, Judy Willey, Don Pelton, Pat Gaffney and Elizabeth Augustine will present photos of mushrooms and discuss characteristics leading to identification.

Elsie Pope and Willi Walker have volunteered to bring the goodies for the meeting.

President's Notes: by Judy Willey

Hail to the President and all those who went to the Craggs Thursday. We saw 2-3 inches. It looked like winter. (ugh!) We still had good success with some edibles and others for identifying. Remember that talk I gave on the *Phallus impudicus* last year? Well, I found some great specimens. Yesterday I went to Frieda's and we prepared the eggs for cooking. She used butter and they were delicious! I'm not kidding! She fried them in butter and they were tasty, crisp, and "with a touch of slim" (according to Frieda). In fact,

today I finished them. I decided that the gel around the egg shouldn't go to waste so I used it for a facial. I was impressed. Now I know you all are thinking that I'm crazy (which I may be) but don't knock something till you try it. To everyone who is going to NAMA, I wish you great treasures and knowledge. See you at the next meeting.

Upcoming Events:

August 20-21, Creede Mushroom Foray. Frolic in the fungi of the beautiful mountains surrounding Creede with Colorado mycological expert, Larry Renshaw! For more info: (800)327-2102 or click [here](#).

August 21-22, King Boletus Mushroom Festival in Buena Vista. For more info click [here](#).

Foray Reports:

July 29 – Due to recent rains more than 30 species were found at the foray to the Craggs on July 29. All of them were fresh, some of them were just emerging from the soil. Frieda Davis

August 5 – You never know what to expect on a foray. Some areas we visited were covered with hail from the previous day's storm and all the mushrooms were shredded to pieces or covered under the white blanket...It looked like a winter wonderland. Other areas produced an abundance of beautiful fresh species, ready to be photographed, or taken home for identification, or for the pot. A perfect day for a mushroomer. Frieda Davis

Last Month:

We used the Kit Scates Guide to identify a mushroom brought in by Eva Mattedi as *Pluteus cervinus*, page 117 in *Mushrooms of Colorado*.

(Continued on page 3...)

Photo Gallery:



This is most probably *Xeromphalina campanella* on a dead log near Megan Lake in the Sangre de Cristo mountains in July. Photo by Bud Bennett.



These two photos are of the same *Cortinarius trivialis*(?). Note the white slime layer and white cortina.



Clitocybe variabilis(?) near Rio Grade Reservoir.



Fried eggs with a bit of pepper on top.



Photo by Mike Essam



Photo by Mike Essam

Vera Evenson, author of *Mushrooms of Colorado*, presented a lecture titled “Colorado Mushrooms, some edible, some not, all beneficial,” a lecture she will present at the NAMA conference next month.

She is the curator of the Sam Mitchel Herbarium of Fungi in Denver at Denver Botanic Gardens. She described five life zones within fifteen miles of Denver that offer a variety of climates that support different fungi. We were given the definition of ‘type collection’ that element to which the scientific name of a taxon is permanently attached, the “first one.” There are 36 type collections at the Denver Herbarium.

We viewed beautiful photos of at least 23 different types of mushrooms found in Colorado of which at least fifteen were edible such as *Tricholoma magnivelare*. Also known as American matsutake, it is found under lodgepole pine between 8,000 and 9,500 feet. It has a smell of ‘cinnamon & cloves’ and may actually precede the Japanese matsutake.

Stems & Pieces:

The Disturbing Mushroom of Lincoln Place

By ANDY NEWMAN



Photographs by Andy Newman/The New York Times

Updated, Aug. 7 Will some enterprising mycologist please identify this thing? Looking for all the world like a half-eaten fermented-entrail sandwich, it has established itself in an otherwise empty sidewalk tree pit outside the [Park Slope Playground](#) in Brooklyn, in full view of thousands of impressionable children.

Apparently the fungus has its fans. On Saturday, when a reporter stopped to inspect it, two youngsters appeared at the window of the first-floor apartment nearby and warned, “Don’t kill the mushroom.”

It’s still there as of Saturday, Aug. 7, though looking a bit aged. Go have a peek. But don’t kill it.

From Our Fungiphobic Relatives Across the Pond (Bath, England)

Another wild mushroom season beckons – so be prepared to read more stories about how people have made themselves ill (sometimes terminally) picking and eating Death Caps or other nasties.

All so needless. And while the combination of weather promises to make this an exceptional season don’t get carried away with your enthusiasm for wild food. And remember: if you aren’t sure, don’t eat it.

It’s better to go without a meal of wild mushrooms than to end up having your stomach pumped – or, far, far worse, to be told there’s nothing more that can be done for you because the mushroom’s microscopic but spiny spores have got into your bloodstream and are slowly and inexorably shredding your liver to mush, with the inevitable consequences.

And if that sounds a little dramatic, then that’s indeed what happens should you inexplicably mistake the sinister-looking Death Cap for plain old *Agaricus campestris*, take it home, and use it in an omelette.

If you are determined to go off piste and look for fungi other than plain, easily-identifiable field mushrooms or horse mushrooms then either buy a very good book, go out with someone who knows what he is talking about, or exercise the greatest caution and only pick the species you can be sure of.

There are relatively few deadly poisonous varieties among the hundreds that are popping up across the countryside, but they do deliver a most unpleasant death. Many others will inflict the kind of illness you won’t forget for a long time. A lot are non-poisonous but simply not worth eating.

And the edible sorts are pretty straightforward to identify. The easiest must be chanterelles, which are generally found growing in woodland or on mossy banks. They are a vivid orange colour, have ribs which extend from the edge of the cap right down the stem and smell strongly of apricots. Beware the false chanterelle, which has a defined cap and gills and is off a rather dustier orange hue.

Ceps, porcini or penny bun mushrooms from the boletus family also grow most commonly in woodland and in place of gills have a spongy underside to the cap. Avoid any where you find this part staining blue after you have touched it.

Hedgehog mushrooms are unmistakable: a pale cap and an underside tinged with pinkish-orange and distinctive spines in place of gills.

And, unless you are going on an organised foray or setting out in the company of an expert, that should be enough of a selection to keep your basket well filled.

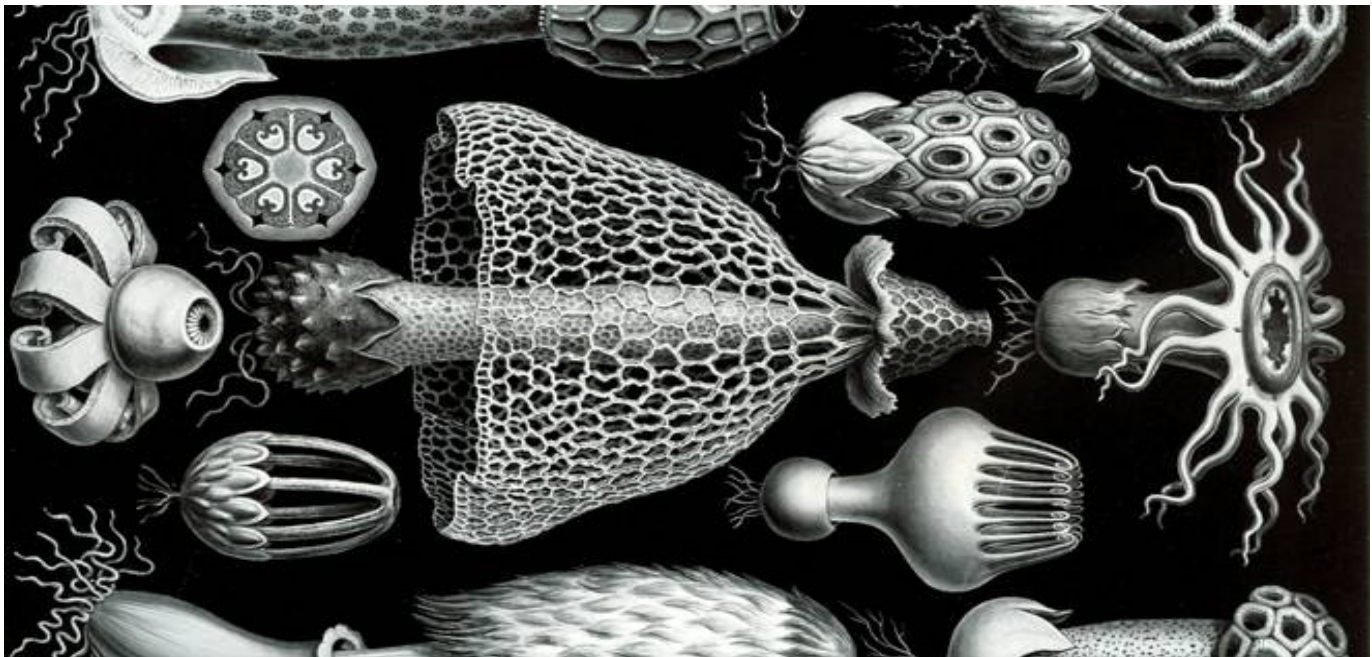
Not that you have to use them all immediately. Ceps take over well to being sliced thinly, dried on absorbent paper in a slow oven and frozen. They can be defrosted and reconstituted in a little warm water when required – and adding both the slices and the soaking liquid to a stew or risotto will give an intense, meaty flavour.

Chanterelles, too, can be semi-dried and frozen until required, and are excellent added to game stews and casseroles.

merely evolutionary noise. But the first comparative analysis of fungal spore form and reproductive dispersal shows that shapes are no evolutionary accident.

"What people have done for 200 years is volume after volume of taxonomic work with descriptions of spore shape and size, without reference to why it's there. You've just got these weird and wonderful forms, but nothing about why," said botanist Nicholas Money of Miami University in Ohio.

Money's team used high-speed video analysis to study spores thrown into the air by a biomechanical process as elegant as it is miniscule. A single bead of water condenses on a spore's surface; when the bead touches a film of water on another part of the spore, the



From Ernst Haeckel's *Kunstformen der Natur*, depicting Basimycetes.

The Magic of Mushroom Spores

By [Brandon Keim](#)

High-speed video has revealed that the incredible variety of fantastic forms taken by fungal spores helps them catapult themselves into the air.

For hundreds of years, scientists have described the spectrum of spore shapes — a different one for each of 15,000 known varieties of fungi, an assortment so astounding as to have sprung from the mind of Willy Wonka rather than Charles Darwin.

But for all their observations, they've known relatively little about why spores took those shapes. Some mycologists suspected it was

bead pours into it, like raindrops merging on a windshield. The resulting shift in weight distribution is so sudden and massive as to hurl the entire conglomeration — called the ballistospore — airborne.

That process is part of the asexual reproduction of fungi, and the many different shapes may serve to help different species grow and reproduce in different conditions. A single mushroom can launch 31,000 ballistospores per second, adding up to some 2.7 billion spores per day. This process is already understood, but Money and his colleagues are among the first researchers to break it down in frame-by-frame resolution.

What made their paper special, said Money, is their description of variation in this mechanism. They found that tiny changes in spore shape produced profound alterations in water droplet shape. Changes in water droplet shape then affected the trajectory of dispersed spores. At one level, the findings are literally microscopic; at another, they're universal.

"Mushrooms are masterpieces of natural engineering," said Money, "and we are just beginning to understand how they work."

The research, published Thursday in Public Library of Science ONE, was funded in part by the National Institutes of Health. They are interested in using Money's insights to develop methods of fungal control. That, however, will be done by others; Money's focus is purely on the magic of mushroom biomechanics.

Asked whether spore trajectories could be scaled up to thrown baseballs or other reader-friendly terms, Money replied that mushroom spores don't go far at all.

"If the viscous drag of air acted upon a baseball with the same intensity that it impedes the flight of a mushroom spore, you would see the pitched ball slow after an arm's length of motion, stop dead, and fall vertically to the ground," he said. "In my seminars I refer to this flight path as the Wile E. Coyote trajectory."

This makes sense, Money said, because it ensures that spores will fall cleanly downward from the densely packed gills where they originate. Click [here](#) to see the original article which includes video of spore dispersal.



Photo by Mike Essam

What's Cookin'

MUSHROOM MASALA

Mushroom – 1 lb.
Red chili powder – ½ tsp (add more for heat)
Black pepper powder – ½ tsp
Coriander powder – 2 tsp
Turmeric Powder – ½ tsp
Garlic cloves – 6
Onion – 1 big onion
Coriander leaves – 1 tbsp
Green chillies – 5
Ginger – small piece
Salt – As required
Water – As required
Garam Masala – 1 tsp
Olive Oil – as required

Chop onion and garlic cloves. Keep aside. Cut Mushroom in small pieces. Pour oil on frying pan and keep it in low flame. Add onion and garlic. Make it deep fry till, golden brown. Chop ginger and chillies. Add turmeric powder in the fried onion. Stir well and add chopped green chilly and ginger. Add garam masala, coriander powder, chili powder, black pepper powder etc. Stir well. Add mushroom, pinch of salt and water. Cook for 20 mins. Make the gravy thick. Add salt if required.

Garnish the dish with chopped coriander leaves. Serve hot with Butter Nan, Roti or Steamed Basmati rice.



The Pikes Peak Mycological Society, a nonprofit organization dedicated to the advancement of mycology, publishes Spore-Addict Times monthly from April-October. Membership is open to anyone wanting to study mycology. Annual dues are \$15 for individual and family memberships. **Submission of ideas, articles, reviews, letters, artwork and recipes are welcome.**

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June's Mystery Mushroom was Gomphidius
Glutinosus

MYSTERY MUSHROOM

By Frieda Davis

I found this mushroom at a recent foray to the Craggs. It grew under a conifer and has a pleasant sweet odor. The cap is light gray, about 4 cm broad, convex, smooth. The gills are white, adnate to slightly decurrent, well spaced and waxy. The white stipe is 4 cm long and about 8 mm thick.

Who am I?

The Spore-Addict times is the official newsletter of the Pikes Peak Mycological Society (PPMS) and is published monthly April – October. All articles appearing in this newsletter may be freely reproduced, unless otherwise noted, for use in other newsletters provided the source and author are acknowledged. We consider this to be a reciprocal agreement for clubs that send their newsletter to us unless we are advised to the contrary.

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