

Spore-Addict Times



The Newsletter of the Pikes Peak Mycological Society

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April 2010

MONTHLY MEETING:

WHEN? Monday, April 26, 2010 – The fourth Monday of the month.

WHAT TIME? 6:30 pm; The meeting will come to order at 7:00 pm.

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: <http://www.pikespeakmushrooms.com/>

PROGRAM:

Frieda Davis will review the Kit Skate guide followed by Q&A. This is a four page guide. The first 2 pages are called "Easy Guide to Common Gilled Mushrooms, the next 2 pages are headed "Easy Guide to Mushroom Descriptions". Please bring your copies. If you do not have this guide, Lee Barzee will have extras to sell for \$2.00.

In addition, Pat Gustavson and Tom Abbott will present foray rules and regulations with tips on survival if lost.

Goodies after the meeting will be provided by Elizabeth Augustyn and Niles LeRad.

President's Notes: by Judy Willey

Greetings to all! Easter and March Madness have come and gone, baseball is here so it is Spring! I spotted my first pasque flower April 5, so spring is on its way. Let's hope that all the snow will be followed by rain to give us a season of earthly fruitings. I look forward to our first meeting April 26. Our program will be presented by Lee Barzee, and Frieda Davis with the Kit Skate guide review. In addition, Pat Gustavson and Tom Abbott will review foray rules and survival tips. We have a new book for the library and a new

DVD. I will bring all the materials to the meeting. Until then, stay grounded.

New Officers

The nominating committee has been hard at work over the winter months. They have been successful in recruiting one new officer. The membership will vote for club officers at the April meeting.

The nominating committee results are as follows. Continuing in their positions: Judy Willey as President and librarian, Bud Bennett as Newsletter Editor, Frieda Davis as Treasurer, Martha Zenger as Hospitality Coordinator, Esther Price as Foray Coordinator. Elizabeth Augustyne has agreed to be Secretary. The Vice President position remains to be nominated.

New Logo Contest

You see the results of the search for a new logo at the top of this page. The winner, by Frieda Davis, beat the nearest competitor, who shall remain nameless, by a wide margin so the alternate votes were not called upon to break any ties (it would not change the result in any case). Kudos to all who submitted artwork and also to those who voted.

Forays

The system that we put in place last year is working so we're continuing with it again this year. Forays will be announced via email distribution and those without email access will receive a phone call.

Keep those inputs coming!

Last year was a record high for club participation in the newsletter. Thanks for all of the photos, emails, links, newspaper clipping and so on. Most of it was published! If this is to be your newsletter then there is no other way. Please keep those cards & letters – or emails – coming. It would be best if photos were in-focus with at least a guess provided as to genus/species.

Bits & Pieces:



Bill & Jeannene Havelka with David Arora



David Arora

Dinner With Bill and David

by Bill Havelka

The "Bill" in this story is Bill Jones, noted chef, cookbook author and overall food entrepreneur recently featured in *Gourmet Magazine*. The "David" is David Arora, renown mycologist and acclaimed author of *Mushrooms Demystified* and *All that the Rain Promises and More*. Last October, Jeannéne and I accepted an invitation to join one of Bill's multi-course dinners at his farm in the Cowichan Valley of Vancouver Island, British Columbia ... home of wonderful organic produce and a burgeoning wine industry.. We were joined by about 20 other guests and Bill's special invitee David Arora. The chef's menu was, of course, designed around wild mushrooms and every offering featured a different fungi native to Vancouver Island. All presentations were delicious. We were fortunately seated next to David for dinner and shamelessly attacked him with every question we could imagine! Following dinner, David was given the stage and in a very straightforward, funny and easy-going manner, he enchanted us all with his love of mushrooms, technical knowledge, and his ability to tell endless stories. And yes, he spoke generally about mushrooms but enlightened us about his current research into exotic locations across Asia and Africa. He lent a very human aspect to his engaging tales of mushroom hunters from around the world and we were left with the impression that his passion for mushrooms was almost mystical and that they were symbols of something far greater in the universe than we had ever considered. Many of his comments put us all at ease. For example, he wasn't concerned about over-picking, pronunciations were often varied, even amongst experts ... and simple admiration of mushrooms was often enough. After endless photographs we retired for the night and gathered the next morning for a foray led by Bill and David. Although numbers were slim due to an extended dry spell on Vancouver Island, David was ultimately patient with every species found ... and every mushroom came along with another story! At the end of the day we all shook hands, thanked Bill for his wonderful hospitality-- and left a sincere invite for David to join "all" of us in Colorado. It was a most memorable experience.

Building your “Mushroom Memory”

By Dr. Walt Sundberg, Mycologist, Professor Emeritus, Southern Illinois University Chief Mycologist (Scientific Advisor), Missouri Mycological Society From MMS Earthstar Examiner Newsletter, March 2009

Do you remember when you first went on a mushroom foray? Why did you start? Was it curiosity, love of nature, or just the nature of the hunt? What were your goals? What did you know about mushrooms before going? Answers to these questions probably hinge on where you grew up (city or rural), and your family background, their interests, and activities.

Growing up in San Francisco, and in spite of the fact that for years, we spent parts of our summers among the redwoods near Santa Cruz, I wasn't introduced to wild mushrooms until my junior and senior years in college. I was truly surprised to learn that mushrooms were abundant, but previously unseen by me, in those same places where I spent some of my youth! I still vividly recall my first fall/early winter of trying to learn and recall the names of the mushrooms I found the past year.

I know that many of us go through various stages and processes in our learning about mushrooms. At first, many are interested in learning which are edible and, for safety's sake, easy to recognize with certainty. For some of us, this is “good enough”. But because of curiosity, mushroom beauty, etc., many of us eventually begin a quest to learn more—to go beyond just the recognition of the “foolproof five” or “sensible seven.” At that point, species recognition—remembering and recognizing the salient features and name of each species—becomes more important. This creates problems for many of us since the “prey” is seasonal. How does one accomplish such goals?

For this purpose, I am initiating this “intermittent continuing series” of Earthstar articles to suggest ways that might enhance your success in making visible progress.

Many of us think of mushroom learning as something that takes place only (or mostly) during the warmer months, the fruiting season. However, the winter/pre-spring periods offer excellent opportunities to learn via “arm chair” mycology. Herein I offer two important suggestions. Both should be done frequently at all times of year. Start NOW!

1. Whenever possible, review the illustrations of mushrooms and other fleshy fungi in your personal library— books, mushroom magazines, etc. Because of your familiarity with the pictures, it will ultimately be possible for you to sometimes recognize and/ or identify fungi you have never seen before when you come across them in the field. This is true “arm-chair mycology.”
2. Begin to make a personal “life-list” of fungi you KNOW and/or have seen in the field or at forays. List first by scientific names and include common names if this helps you. If possible, use a computer spread sheet like Microsoft Excel. Such a list can be continually modified and updated. PRINT THE LIST OUT. Review it over and over again, and modify it often as your knowledge of mushroom species increases. Most important: Carry it with you and use it to jog your memory on field trips! You will be surprised at how much more you will soon remember with the help of your list.

Unearthing the Secret Sex Lives of Truffles

By NICHOLAS WADE

Published: The NY Times, March 28, 2010

The black truffle of Périgord, the cynosure of every foodie's dreams, is about to yield its most intimate secrets to a team of French and Italian researchers who have decoded its genome. Surely a great day for gastronomy and yet — truffle-lovers be advised — some of the new discoveries may reveal more than you really wanted to know.

Truffles are the fruit of fungi that infect the roots of certain trees. They are of keen interest to pigs, particularly sows, because some secrete androstenol, a hormone produced by boars before mating. People who use sows to hunt for truffles often find it hard to prevent a sex-crazed animal from eating the truffle she has found and may lose fingers in the attempt.

It turns out the truffles too have a sex life, said Dr. Francis Martin, a plant biologist at the University of Nancy in [France](#) and leader of the research team. The precious fungi had long been thought to lead an asexual existence, but Dr.

Martin and his colleagues have found that they have two sexes, or mating types.

The information is of great significance to truffle growers, whom Dr. Martin now advises to inject roots with both sexes of truffle spore. The truffle then benefits from the purpose of sex, which is of course to generate new combinations of genes and fresh diversity.

Truffle growers in France and Italy have a mixed reaction to the work of Dr. Martin's team on the truffle's genome. On the one hand, they "are always complaining we are not doing enough for them," Dr. Martin said. On the other, "they don't want us to get the magic recipe to produce truffles by the ton because then the price would go down."

The Périgord black truffle has a large genome, made of 125 million units of DNA that contain about 7,500 genes, Dr. Martin and his colleagues report online Sunday in the journal *Nature*. Figuring out what each gene does will take many years, but certain patterns of activity are evident.

Nestled underground in the roots of its oak tree host, the truffle fungus has a suite of genes for detecting light. These are either to help it avoid sunlight and stay safely beneath the earth, or to help it sense the passage of the seasons.

It has another suite of genes for exchanging nutrients with its host. The fungus earns its keep, providing more food for the oak than the tree's roots can obtain alone.

Truffle-infected trees can often be recognized because a patch of bare earth develops around the trunk. The fungus seems to deter competitors of its tree aggressively, perhaps by producing some plant toxin. Dr. Martin has not yet identified the responsible genes. They may be hard to detect, he said, because they are probably unique to the truffle fungus.

The fungus's major concern is to spread its spores, a matter of some technical difficulty for an organism that lives underground. So it produces the redolent odors that will compel surface dwellers of all kinds to search for it, eat it, and distribute its spores after they have dined.

At the top end of this truffle food line are people, some of whom will pay as if truffles were worth their weight in gold. Such is human wickedness that fake truffles abound, some of them stained with walnut juice to resemble the Périgord black truffle.

People make secrets of the recipes for inoculating trees with spores and the location of

truffle groves. They will steal each others' trained truffle dogs. Dogs have taken over truffle detection duties from pigs because if one is trying to harvest a truffle wood discreetly without alerting the locals, it's generally a mistake to show up walking a pig on a leash.

In the middle of the food line are boars and squirrels, driven wild by the truffle perfumes designed to mimic their own sex hormones. Dr. Martin said he had traced most of the genes whose products manufacture these chemicals.

Last, there are the truffle flies which lay their eggs in the truffle. From the fungus's perspective, the insects are just another way of spreading its spores. So it attracts them by releasing anisole and veratrole, two insect pheromones, when the truffle has reached maturity. Truffles can often be detected by looking for congregations of truffle flies.

Don't the fly's eggs and larvae degrade the edibility of the truffle? It seems the opposite is the case. "If collected at late maturation stages, the truffles will likely carry eggs and larvae — adding proteins and aroma to the truffle," Dr. Martin said.

Though the black truffle has a large genome, it has fewer genes than other fungi, possibly because it has chosen a very specialist lifestyle and so needs fewer genes than does a generalist fungus.

February Mushrooms

By Frieda Davis

My daughter-in Law asked me to take care of Lulu and Donovan while they wanted to take a vacation in February-March. So I asked Esther to join me and off we went to Huntington Beach while my son and daughter-in-law went skiing in Colorado. Huntington Beach is a beach community in California and yes, we enjoyed all the lovely flowers but could we find mushrooms among all the manicured places? We were yearning for a "wild place" where our trained eyes could spot tiny little fungi. We found such a place at Shipley Nature Center, an 18 acre nature area located within Huntington Beach Central Park. It has a small visitor center.

The lady in charge at Shipley noticed me on my hands and knees taking a photo of a *Coprinus comatus* and insisted on showing us her collection of mushroom photos which she had taken at the Center. She did not know the names

of any but there were some names scribbled next to some photos which previous visitors had left and some of them were quite obviously wrong. She would have loved to join us on our walk but could not leave the Visitor Center. Indeed, we found a variety of species and of course we could not pick any for identification, they were there for all the others to enjoy too, the lady said. It was hard to resist to bring back some of these darlings but would our excuse of "picking for scientific purpose" be good enough to keep us out of jail or having to pay a hefty fine? In any case it was great fun to see all these lovely 'shrooms in February. We stayed until the Center closed. The lady in charge told us that she would order "Mushrooms Demystified" which was our recommendation. There were no mushrooms books at the Center.

Oh, in case you are interested, Lulu and Donovan are cute little dogs.

Hallucinogens Have Doctors. Tuning In Again

By JOHN TIERNEY

Published: NY Times - April 11, 2010

(Editor's note: PPMS does not condone the use of so-called psychedelic mushrooms but this article is interesting for the potential use by the medical community.)

As a retired clinical psychologist, Clark Martin was well acquainted with traditional treatments for [depression](#), but his own case seemed untreatable as he struggled through [chemotherapy](#) and other grueling regimens for [kidney cancer](#). Counseling seemed futile to him. So did the antidepressant pills he tried.

Nothing had any lasting effect until, at the age of 65, he had his first psychedelic experience. He left his home in Vancouver, Wash., to take part in an [experiment at Johns Hopkins medical school](#) involving psilocybin, the psychoactive ingredient found in certain mushrooms.

Scientists are taking a new look at hallucinogens, which became taboo among regulators after enthusiasts like Timothy Leary promoted them in the 1960s with the slogan "Turn on, tune in, drop out." Now, using rigorous protocols and safeguards, scientists have won permission to study once again the drugs' potential for treating mental problems and illuminating the nature of consciousness.

After taking the hallucinogen, Dr. Martin put on an eye mask and headphones, and lay on a couch listening to classical music as he contemplated the universe.

"All of a sudden, everything familiar started evaporating," he recalled. "Imagine you fall off a boat out in the open ocean, and you turn around, and the boat is gone. And then the water's gone. And then you're gone."

Today, more than a year later, Dr. Martin credits that six-hour experience with helping him overcome his depression and profoundly transforming his relationships with his daughter and friends. He ranks it among the most meaningful events of his life, which makes him a fairly typical member of a growing club of experimental subjects.

Researchers from around the world are gathering this week in San Jose, Calif., for the largest conference on psychedelic science held in the United States in four decades. They plan to discuss studies of psilocybin and other psychedelics for treating depression in [cancer](#) patients, [obsessive-compulsive disorder](#), end-of-life [anxiety](#), [post-traumatic stress disorder](#) and addiction to drugs or alcohol.

The results so far are encouraging but also preliminary, and researchers caution against reading too much into these small-scale studies. They do not want to repeat the mistakes of the 1960s, when some scientists-turned-evangelists exaggerated their understanding of the drugs' risks and benefits.

Because reactions to hallucinogens can vary so much depending on the setting, experimenters and review boards have developed guidelines to set up a comfortable environment with expert monitors in the room to deal with adverse reactions. They have established standard protocols so that the drugs' effects can be gauged more accurately, and they have also directly observed the drugs' effects by scanning the brains of people under the influence of hallucinogens.

Scientists are especially intrigued by the similarities between hallucinogenic experiences and the life-changing revelations reported throughout history by religious mystics and those who meditate. These similarities have been identified in [neural imaging studies conducted by Swiss researchers](#) and in experiments led by [Roland Griffiths](#), a professor of behavioral biology at Johns Hopkins.

In one of Dr. Griffiths's first studies, involving 36 people with no serious physical or emotional problems, he and colleagues found that psilocybin could induce what the experimental subjects described as a profound spiritual experience with lasting positive effects for most of them. None had had any previous experience with hallucinogens, and none were even sure what drug was being administered.

To make the experiment double-blind, neither the subjects nor the two experts monitoring them knew whether the subjects were receiving a placebo, psilocybin or another drug like [Ritalin](#), [nicotine](#), caffeine or an [amphetamine](#). Although veterans of the '60s psychedelic culture may have a hard time believing it, Dr. Griffiths said that even the monitors sometimes could not tell from the reactions whether the person had taken psilocybin or Ritalin.

The monitors sometimes had to console people through periods of anxiety, Dr. Griffiths said, but these were generally short-lived, and none of the people reported any serious negative effects. In a survey conducted two months later, the people who received psilocybin reported significantly more improvements in their general feelings and behavior than did the members of the control group.

The findings were repeated in another follow-up survey, taken 14 months after the experiment. At that point most of the psilocybin subjects once again expressed more satisfaction with their lives and rated the experience as one of the five most meaningful events of their lives.

Since [that study, which was published in 2008](#), Dr. Griffiths and his colleagues have gone on to give psilocybin to people dealing with cancer and depression, like Dr. Martin, the retired psychologist from Vancouver. Dr. Martin's experience is fairly typical, Dr. Griffiths said: an improved outlook on life after an experience in which the boundaries between the self and others disappear.

In interviews, Dr. Martin and other subjects described their egos and bodies vanishing as they felt part of some larger state of consciousness in which their personal worries and insecurities vanished. They found themselves reviewing past relationships with lovers and relatives with a new sense of empathy.

"It was a whole personality shift for me," Dr. Martin said. "I wasn't any longer attached to my performance and trying to control things. I could

see that the really good things in life will happen if you just show up and share your natural enthusiasms with people. You have a feeling of attunement with other people."

The subjects' reports mirrored so closely the accounts of religious mystical experiences, Dr. Griffiths said, that it seems likely the human brain is wired to undergo these "unitive" experiences, perhaps because of some evolutionary advantage.

"This feeling that we're all in it together may have benefited communities by encouraging reciprocal generosity," Dr. Griffiths said. "On the other hand, universal love isn't always adaptive, either."

Although federal regulators have resumed granting approval for controlled experiments with psychedelics, there has been little public money granted for the research, which is being conducted at Hopkins, the [University of Arizona](#); [Harvard](#); [New York University](#); [the University of California, Los Angeles](#); and other places.

The work has been supported by nonprofit groups like the [Heffter Research Institute](#) and [MAPS](#), the Multidisciplinary Association for Psychedelic Studies.

"There's this coming together of science and spirituality," said Rick Doblin, the executive director of MAPS. "We're hoping that the mainstream and the psychedelic community can meet in the middle and avoid another culture war. Thanks to changes over the last 40 years in the social acceptance of the [hospice](#) movement and [yoga](#) and meditation, our culture is much more receptive now, and we're showing that these drugs can provide benefits that current treatments can't."

Researchers are reporting preliminary success in using psilocybin to ease the anxiety of patients with terminal illnesses. [Dr. Charles S. Grob](#), a psychiatrist who is involved in an experiment at [U.C.L.A.](#), describes it as "existential medicine" that helps dying people overcome fear, panic and depression.

"Under the influences of hallucinogens," Dr. Grob writes, "individuals transcend their primary identification with their bodies and experience ego-free states before the time of their actual physical demise, and return with a new perspective and profound acceptance of the life constant: change."

What's Cookin'

Chanterelle Spaghetti Squash Casserole

Created by [AndrewM](#), Sunday, 20 December 2009

- 1 spaghetti squash
- 1 lb. chanterelles, chopped
- 1 large yellow onion, chopped
- 1/2 C. chicken or vegetable stock
- 1/4 C. white wine
- 5 T. olive oil
- 2 t. dried tarragon
- 1 t. salt
- 1/2 t. fresh ground pepper
- 1/4 C. bread crumbs
- 1/4 C. grated romano cheese (optional)

Preheat oven to 375 F. Knock stem off squash and cut in half lengthwise. Brush edges with oil, lay cut-side down in 9" x 13" baking pan. Roast in oven for 1 hour or until tender. Meanwhile, saute the chanterelles in a large skillet over medium high heat with 2 T. oil until tender. Remove from pan. Saute the onions in the same skillet over medium heat with 2 T. oil until nicely browned. Add back mushrooms, chicken stock, wine, tarragon, salt and pepper, and simmer together a few minutes. Mix the bread crumbs and cheese together in a bowl. When the squash is done, remove from oven, let cool a bit, and use a fork to shred into a large mixing bowl. Add the onion/mushroom mixture to the squash and toss together. Put mixture back into the baking pan and top with the crumb/cheese mixture. Bake another 20-30 minutes or until topping is browned. Broil briefly if needed.



Egg and Mushroom Soup

- 5 dried mushrooms.
- 2 medium eggs.
- 4 cups of chicken stock.
- 1/2 tablespoon of cooking oil.
- 1 1/2 teaspoons of soy sauce.
- 1 teaspoon of salt.

Wash the mushrooms, then allow to soak in a cup of warm water.

Set aside.

Beat the eggs; then set aside.

Boil the chicken stock, then add the mushrooms (including the water they soaked in).

Boil for about 5 minutes.

Add the soy sauce and the salt.

Stir in the cooking oil and beaten eggs.

Serve hot.



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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October's Mystery Mushroom was Tricholoma populinum

MYSTERY MUSHROOM

By Judy Willey

I am a rather lovely mushroom growing on dead logs. I have caps that are 2-8 cm across, fan shaped in clusters or shelving masses. My gills are brilliant orange, moderately narrow and close. I have no stalk. My spores are pinkish at first then fading. My odor is notable, to say the least, in spite of my beauty.

Who am I?

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