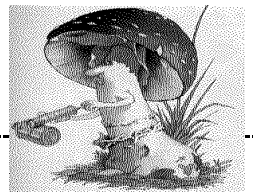
Fungifama



The Newsletter of the South Vancouver Island Mycological Society
September 2011

Introducing the SVIMS Executive for 2011

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To broadcast a message to SVIMS members via email: SVIMS@lists.vvv.com
SVIMS web site: **www.svims.ca**

Dues: **$20.00 per year** per household, payable in January by cheque made out to South Vancouver Island Mycological Society or by cash at meeting.

Meetings: First Thursday of the month (no meetings December, January, July, and August), 7:00 p.m. sharp at the Pacific Forestry Centre, 506 Burnside Rd W, Victoria. Lots of free parking. The meeting room is near the main entrance door. Non-members welcome.

A reminder to pay your dues Cheques can be sent to SVIMS c/o Barbara Pendergast, Treasurer Barbara Pendergast350 Benjamin Road Victoria BCV8Z 4W1

Monthly Meeting Info:

Please remember to bring your own coffee cup

November 3
Speaker: Kem Luther
Topic: Second Spring: Mushrooms and Mycorrhizas on Southern Vancouver Island
SVIMS Elections

January 14
Survivor's Banquet
Where: Gordon Head Lawn Bowling Club, 4105 Lambrick Way (by the Gordon Head Recreation Centre, just off Feltham).
Lots of parking
Food: a potluck dish big enough for 8 people
Bring: plate, cutlery, mug, glass, $2 donation to pay for the room
BYOB or beverage of choice. Coffee and Tea will be provided by SVIMS.
Auction Item: One highly prized auction item only

Prez Sez

By Jean Johnson

In late June, our Club had the opportunity to go on a remarkable foray along the beginning of the Kludahk Trail. Sponsored by the Kludahk Outdoors Club, Adolf and Oluna Ceska and Hans Roemer were special interpretative guests.

"This public trail runs 48 km long east to west along the San Juan Ridge, which parallels the Juan de Fuca Strait between Jordan River & Port Renfrew. For the most part the trail is located on crown land, two thirds of it is located on TFL 25, and the

other third is located on private lands. The trail is protected under a special designated management zone developed by the Ministry of Forests and in partnership with the forest industry.

The trail is unique because of its wilderness backcountry and natural history. Its semi-alpine geography makes for interesting hiking and recreation – meadows, lakes, old hemlock and cedar forests, bogs and ponds. The trail has abundant wildflowers and some wildlife." *

Kludahk Lily

Photo: Jean Johnson

We were there to participate in the 22nd annual Lily Walk, sponsored by the KOC. These magnificent native avalanche lilies (*Erythronium montanum*) were blooming in profusion at the edge of snow patches which were still evident at this late date.

While this was not specifically a "fungi" foray, it was wonderful to be in the wilderness, appreciating all the natural beauty that is part of the mushrooming experience as well.

And talking about mushrooms, the season has begun! Reports of chanterelles are appearing on our SVIMS list. We had a wonderful rain recently and I've been finding urban Princes (*Agaricus augustus*) in lawns around Sidney. I expect my secret meadow mushroom field to be fruiting any day now.

As we start another season of Club forays, please remember to be safe in the woods.

A Mushroom Hunting Checklist and the Ten Commandments if you intend to eat wild mushrooms can be found on the SVIMS website under Events. Please read them and enjoy your fungal forays safely.

* from the Kludahk Outdoors Club website

LOCAL EVENTS AND FORAYS

Mushrooms: Wild & Mysterious
Hollyhock
Oct 8 - 12, 2011
Presented by: **Paul Stamets**

Fungi, particularly mushrooms, offer powerful, practical solutions to enhance both human and ecosystem health. Learn easy-to-grow cultivation methods using a hands-on approach and gain the skills to identify at least twenty-five species of mushroom, both wild and cultivated. Delve into their historic and contemporary uses as food and medicine. Learn the secrets of cooking and preserving these delectable treats as well as how to process them into fibre. Discuss the evolution of mushrooms in ecosystems and fungi's crucial roles in destroying pollutants and in up-channelling nutrients for the benefit of other organisms in the biosphere.
TUITION: $545 (meals & room additional)

Wild Mushrooms – an introductory course for adults
Swan Lake Nature Centre
Wednesdays, October 12, 19, 26, 7 to 9 pm
Field-trip Saturday October 29, 3 to 5:30 pm
Features classes on Mushroom ID (with Shannon Berch), Edible Mushroom (with Bill Jones) and Mushroom Photography (with Rich Mably). Cost: $80
for Swan Lake and SVIMs members - $100 for non-members. Please register
by calling 250-479-0211

Searching for Mushrooms in John Dean Provincial Park
Date: October 23, 10 am
Join Bryce Kendrick, distinguished mycologist and author of The Fifth Kingdom. There is no collecting in the park; we will look at mushrooms in situ.

Warning: the terrain is hilly and there will be some steep climbing in parts. Wear good boots. A walking stick would be helpful and bring lunch. If the weather is cool, a good lunch can also be had at an excellent restaurant in the vicinity called The Roost Farm House. Otherwise we will stop for lunch on the trail and a discussion. We should be finished by approximately 1:00 pm. For more information call Gwen Walter 250-727-7376.

Medicinal Mushrooms of Western Canada
October 29 – 30
With Robert Rogers
Students will explore the world of medicinal mushrooms and lichens, learn how to prepare tinctures, identify mushrooms in the wild, and examine the top 20 mushrooms and their use in a clinical setting, including contraindications and positive drug interactions. The course will be presented from the perspective of a registered herbalist with 18 years of clinical practice, and include case studies involving chronic disease, including auto-immune conditions. Registration and more information at www.pacificrimcollege.ca/lectures_and_events.html

SVIMS Swan Lake Mushroom Show
Location: Swan Lake Nature Centre
Date: October 30, 10:00 a.m. to 4:00 p.m.
SVIMS presents our annual mushroom show featuring collected samples, mushroom-themed art, calendars for sale and more. Members are asked to collect samples to be brought to the Centre the night before for identification. **Admission by donation.**

FAR AWAY EVENTS AND FORAYS:

Sunshine Coast Mushroom Festival
Dates: October 15 & 16
Location: Madeira Park, Pender Harbour
Mushroom displays, cooking demos, fibre dying, artisans, vendor market, mushroom-growing kits, raffle, tastings and forays. Details at www.scshroom.org

ARTICLES OF INTEREST

The Mmmm Word
By Jill Stanley

It was just a year ago that Bernie and I enlarged our vocabularies to include such words as mycology, mycologist, mycophobia and, of course, mycelium. We thought we had all the M words down pat – until, that is, the term “mycophagy” cropped up. What the heck was that? We had to go to Hinton, Alberta to find out.

Photo: Jill Stanley

The Great Alberta Mushroom Foray was the place to be for mycophiles over the Labour Day weekend. Along with 65 other enthusiastic mushroomers, we were treated to a choice of 13 different foray locations, lectures and workshops, an enormous collection of identified mushrooms, not to mention superb grub and bonhomie in the foothills of the Rockies. Always led by our stomachs, Bernie and I determined not to miss a workshop on “the practice of eating fungi, especially mushrooms collected in the wild” – yes, mycophagy.

We were in for a series of surprises, though. Chad Moss, a slow food Chef and Alberta mycology society member from Newfoundland (judging from his accent and his wicked sense of humour) held us spellbound by his frying pan. As he insisted, this was no ordinary cooking demo, this was HAUTE mycophagy. Ably assisted by Chef Alan Suddaby and their wives, Thea and Lisa, Chad sautéed his way through a mass of shaggy manes, lactarius, suillus, leccinums, hedgehogs and hawk's wing, all of which were distributed for tasting. We had all signed the foray waiver after all, so Chef Moss wasn't worried!

Photo: Jill Stanley

He started off by telling us that flavours are cultural, that the flavour combos we select for mushrooms are pretty standardized within a culture. Most of us fry up our mushrooms, perhaps with onions, garlic, or butter and cream. Normal, right? Well, how about trying shaggy manes with black tea or violets or camembert or kelp? Apparently, there are sweet, savory, and sour pairings that work well with mushrooms...or any food... because of complementary flavours.

To demonstrate, Chad sautéed one skillet of shredded shaggies with butter and salt and pepper. In another skillet he sautéed the shaggies in butter and then added cream and peppermint white chocolate.

Peppermint white chocolate? You have to be kidding, we thought.

Holy cow! The difference was amazing. The first tasted bland and routine, the second with just a hint of the chocolate turned the morsels into something completely memorable. A frontier had been broken! He followed that with a leccinum atop a ginger cookie; smoked, then sautéed, hedgehogs; a delicious pickled leccinum, confirming that the effort required to pickle would definitely be worthwhile.

I checked out the source for some these ideas at www.foodpairing.be, which is the intriguing interactive site that Chad utilizes. You can type in your food or drink (boletes, mushrooms, broccoli, chardonnay and so on) and it gives a flow chart of possible combinations. You can use one or several together. How about zucchini and apricots, for example? I was curious about broccoli and the website produced these exciting pairing possibilities: popcorn, figs, sake, geranium and brie plus many more. I can't wait to serve broccoli with popcorn and a geranium garnish for the sheer shock value!

Speaking of shocks, did you know that David Arora holds "edibility unknown" parties? That became the final act (no pun intended) of the afternoon. Oh, the excitement! Martin Osis, President of the Alberta Mycological Society was prepared to make this his "final act" in order to sample *Hypomyces ludovirens* on *Lactarius deliciosus*, a mushroom of unknown edibility. Martin, an affable, supremely knowledgeable, mycophile chose a mushroom he felt would have a good chance of being okay...and anyway, he felt the mushroom was interesting enough to be worth spending the night on the toilet.

While Chad and Alan prepared his feast, Martin gave us a few parting words. Only try mushrooms from a "safe" family. Nibble and spit the uncooked fungus to see if it's worth the risk. The number of worm holes in a fungus should be even, so count them. (Worms in should equal worms out!) Don't

eat a lot, and best of all, invite your not-so-good friends to the party. With that, he chomped down on *H. ludovirens* with an anticipatory grin, and then invited others to join him.

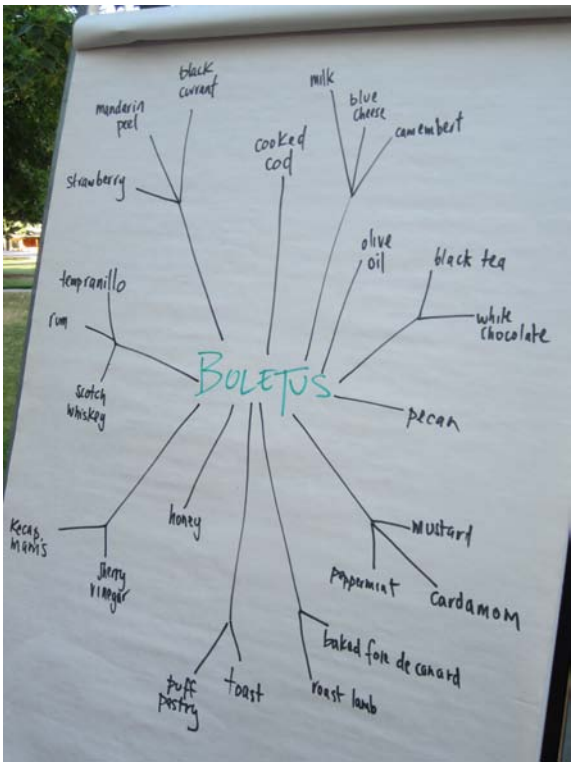


Photo: Jill Stanley

Bernie risked it. His verdict? Not great. It might be edible (since no one got sick), but really, why bother? Even with a whiz chef, it was still bland, so we'll stick to hedgehogs, I think. But thanks to Chad and Alan, the next time we cook them, we'll use balsamic vinegar, honey and kecap manis and nestle them on a nori rice cracker. Bon appétit and happy mycophagy, everyone!

Follow more of Jill's adventures on her blog http://trufflesandturkeytails.blogspot.com

Foraying - How to Make it Back

By Cathy Richards

From Mycelium, the Newsletter of the Mycological Society of Toronto, Volume 37, No. 2, April-June 2011

Getting lost is something we all want to avoid. If in a group, it worries and inconveniences the others. And of course, it can be down right terrifying for the person who is lost. Here are a few basic guidelines to ensure you don't get lost while out foraying.

Preparation:
• Tell someone where you are going and what time you should be back.
• Stay near marked trails. If there are no trails, don't wander too far from the path. Return to the path periodically.
• Check out the area before you go to familiarize yourself with key landmarks.

While hiking:
• Mark a trail as you go. Use natural materials such as forked branches to indicate your direction.
• Use the sun to determine directions. The sun is in the east before noon and in the west after.

Gear:
Nothing beats common sense and following the tips above, but some gear might help if in a pickle.
• A map of the area.

Canned Chanterelles

This recipe was kindly provided by David Mincey of Camille's Restaurant and is published here with permission.

Note that it is essential to blanche the mushrooms prior to canning.

Brine
4 c white vinegar
1 c water
¼ c kosher
¼ c sugar

Put a bit of pickling spice in the bottom of each jar, a clove of garlic and a sprig of dill if you have one. Optional couple slices of onion.

Top with blanched mushrooms and brine.

For pint jars can at 10 pounds for 10 minutes.

• A good compass. Using a compass requires some skill, so learn to use it properly before you head out.
• A whistle is a very basic precaution. Its high pitched sound travels further than voices.
• Your cell phone. This is probably the best bet if you get lost… if you have coverage…
• A GPS. There are GPS units for hiking and GPS apps for iPhones that allow you to mark your starting spot and then leave a virtual trail of "breadcrumbs". A car GPS, while not as good as a handheld, can map the route you are taking and get you back to where you started.

If you do get lost, I read a tip that I found most intriguing. Follow the direction of a stream as people often live near a water source.

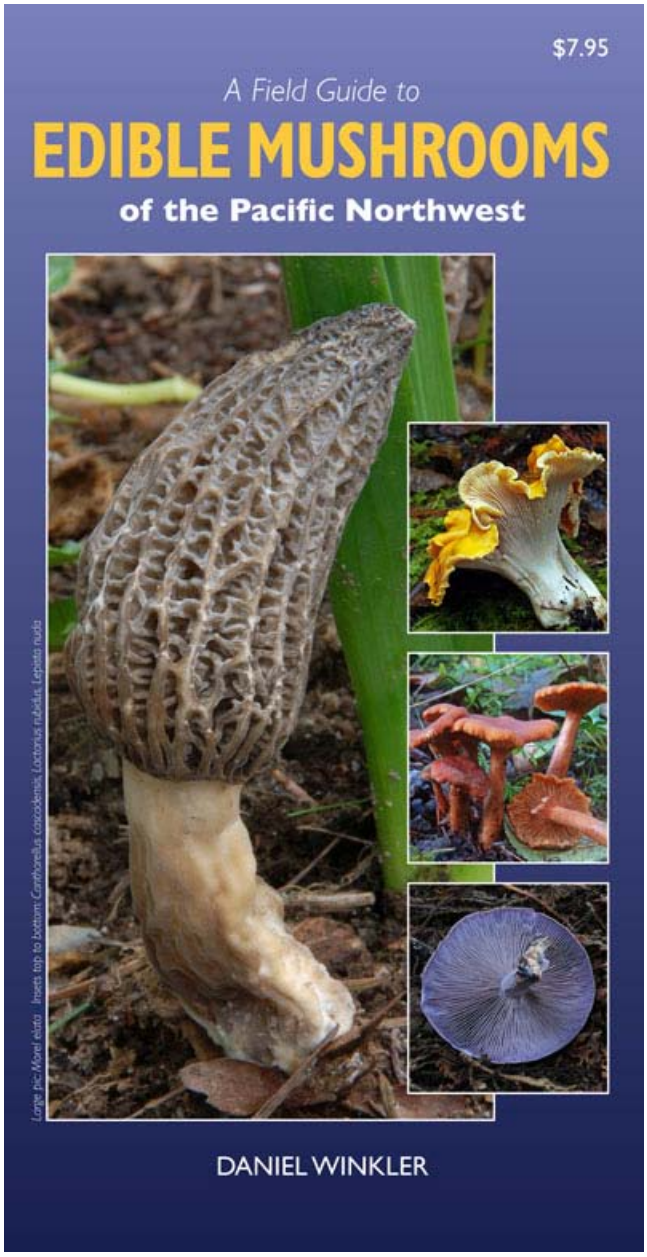
FUNGUS CAN BREAK DOWN PLASTICS
Kristen McCrae
CNN, August 4, 2011

When it comes to plastic pollution, our society has asked everyone—scientists, environmentalists, and the government— to clean up the mess we've made. Through recycling initiatives, plastic bag bans and fees, and alternatives to plastics altogether, we still haven't come close to solving the problem…perhaps until now. The solution might have been discovered with a fungus in a laboratory Petri dish.

Pria Anand was a student in Yale University's class of 2010 whose passion for the environment made her want to make a difference. Anand wanted to find out if there was something in nature that could decompose plastic. She began experimenting with dozens of species of fungi from the Amazon, but she graduated before she could finish her work.

Jonathan Russell took over for Anand but soon he was beginning to think maybe it just wasn't possible. One day, as he casually walked into the lab he says his eyes locked on the Petri dish containing his experiment: the plastic was gone. He'd found what they'd been looking for.

The Yale students had discovered that *Pestalotiopsis microspora* fungus can break down plastic. The study found that several species of fungi were able to at least partially decompose polyurethane, but this one was the only fungus able to do it in water without oxygen, one of the most challenging environmental conditions.



Daniel Winkler has published a new field guide which is available from him directly. Find out more at his website www.danielwinkler.com.

Scott Strobel, the Yale biochemistry professor who instructed Anand and Russell during these experiments, says because of this discovery, the future looks promising for all types of plastic pollution. He says fungi's potential to break down

man-made materials could be endless, along with its possibilities in medicine and other fields of science.

However, Russell warns that this is not the ultimate solution to solving plastic pollution. “I don’t want it to be broadcast as the cure-all to pollution, but it’s a modest step towards a very important goal,” he says.

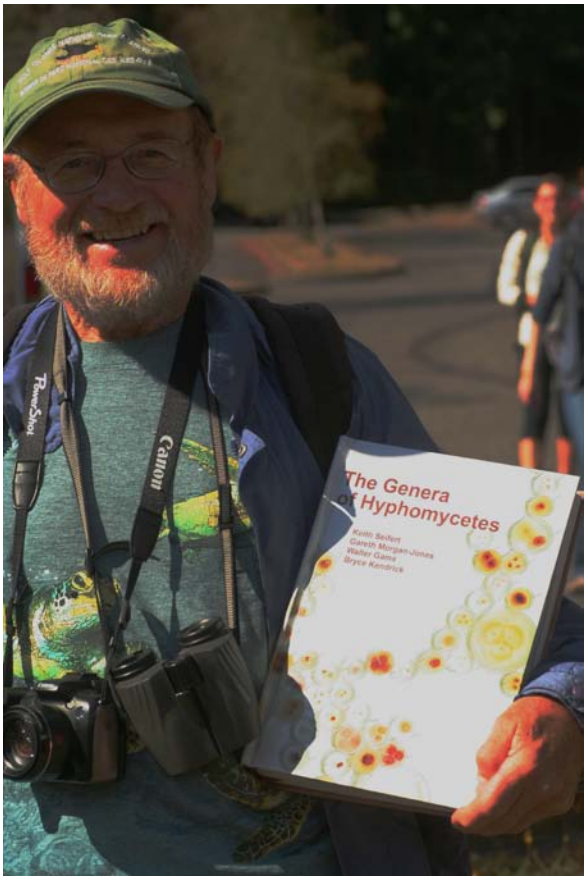


Photo: Adolf Ceska

Congratulations to Bryce Kendrick whose book *The Genera of Hyphomycetes* (co-authored with Keith Seifert, Gareth Morgan-Jones and Walter Gams) was published earlier this year. Find out more at www.apsnet.org/apsstore/shopapspress/Pages/51854.aspx/

The full study will be published in the September issue of the *Journal of Applied and Environmental Microbiology*. Dr. Ming Tien, a biochemist at Penn State University, says he experimented in the past with using fungi for decomposition. He points out “the question of whether these microbes can be used in the future is an engineering challenge. It’s a big leap to go from the test tube to the field.”

Back in Strobel’s classroom, one of his students is working to find an organism that biodegrades Styrofoam. Strobel says the current crop of students is interested in seeking out more solutions like these and that they’ll continue to make discoveries like Russell. Today, Russell is working on his Ph.D. in molecular biology at Harvard. He’s encouraged that other students are taking an interest in environmental solutions.

“Growing up in a world where pollution is going to be a big issue in the future, coming up with creative ways to tackle it, gets me excited,” Russell says. “I only hope that more people will take this on and get interested in it in the future.”

“HOTLIPS” FUNGUS WINS SPECIES NAMING COMPETITION

Patrick Barkham

guardian.co.uk, July 20, 2011

A 12-year-old girl has beaten more than 5,000 entrants to win a competition to invent the best new moniker for 10 endangered and overlooked species lacking a common name.

A lurid orange fungus, previously only known by its rather forgettable scientific nomenclature, *Octospora humosa*, was named “hotlips” by Rachael Blackman from Swindon, perfectly capturing the appearance of the moss-dwelling member of a group of fungi called Discomycetes, or “discos”.

*Hotlips (*Octospora humosa)

“They looked a bit like lips and I thought the name suited it really well because of the bright orange colour,” said Rachael. “It’s

exciting to know it will always be called hotlips." "It's very simple, it's very apt and it's the kind of thing that people will remember, which cuts to the heart of the competition," said Pete Brotherton, head of biodiversity at Natural England and one of a judging panel including *Guardian* columnist George Monbiot and Liz Holden of the British Mycologists Society.

BOOK REVIEW: *MushRumors*
By Maggie Iadanza
Ore. Myco. Soc., July/Aug. 2011
Spiral, a new science fiction novel, is a frighteningly plausible account of the role that fungi could play in a terrorist-type attack. There is so much for mycophiles to enjoy about this novel. The author, Paul McEuen, is a physicist in nanoscience research at Cornell. The story involves tiny, scalpel-footed robots, some no bigger than mustard seeds created by Liam Connor, a renowned mycologist who uses these "microcrawlers" to tend his 400,000-specimen fungus farm in the Cornell Plant Pathology Herbarium, fondly known as the Gardens of Decay. Liam was teaching microcrawlers to create ethanol fuel for themselves by, for instance, breaking down old credit cards. He envisioned the crawlers as instruments of good, not microelectro-mechanical devices with a bad attitude.

What makes this novel so intriguing is not only the impeccable science but that the fungus is not just the bit player that you find in the typical murder-by-mushroom mystery. From the first moment that Liam Connor identifies the mycotoxin poisoning as "maybe *Claviceps purpurea*. Ergot. Or one of the species of *Fusarium*," you suspect that the novel will be challenging. (The poison turns out to be *Fusarium spirale,* a mold that infects corn and cereal substrates.) There is a discussion of "the maximum temperature a fungal spore can take and still be viable," that species of *Fusarium* could live inside the guts of migratory fowl," and that the feathers of birds are ideal for carrying spores. Maggie, Liam's daughter, creates fungal art on a log using *Aspergillus* as living paint. The story was a little lightweight but the science was detailed and accurate. The future it portends for fungi in combination with nano- and information technology, as well as micro- and synthetic biology, is both intriguing and troubling.

Links of Interest
Huge puffball falls short of record
http://cnews.canoe.ca/CNEWS/Canada/2011/09/08/18655231.html

Taylor Lockwood's latest collections of Thailand photos
www.fungiphoto.com/D_gallery_3/index.htm

Taylor Lockwood mushroom talk
http://growingbolder.com/676299.html#content_tabs

SpongeBob lends name to new mushroom species
www.bbc.co.uk/news/science-environment-13874049

'Missing Link' fungi found in Devon Pond
www.bbc.co.uk/news/science-environment-13874049

SVIMS welcomes new members!

Karen Burns	Eugene Koczkur
Louise Bouland	Dave Mackas
Byron Cook	Barry Munn
Gail Grant	Benoit Roche
Ben Hircock	Trish Reimer
Elizabeth Ireland	Sandra Van Vliet