

Fungifama



The Newsletter of the South Vancouver Island Mycological Society
January 2008

Introducing the SVIMS Executive for 2008

President

Shannon Berch shannonberch@telus.net
250-652-5201

Vice President

Richard Winder. sidewinder@spamcop.net

Treasurer

Karen Rowe iskr@shaw.ca

Membership

Karen Rowe iskr@shaw.ca

Secretary

Jean Johnson jeanwade@islandnet.com

Foray Organizers

Adolf and Oluna Ceska aceska@telus.net
250-477-1211

Jack and Neil Greenwell j.greenwell@shawlink.ca

Fungifama Editor

Heather Leary hleary@shaw.ca
250-385-2285

Publicity & Library Manager

Kevin Trim kevintrim@shaw.ca

Webmaster

Ian Gibson ig@islandnet.com
250-384-6002

Directors at large

Rich Mably rmably@telus.net
Aurora Skala lagomorphian@hotmail.com

Refreshments Organizers

Marcie Gauntlet marcichka@telus.net
Peggy Turkanen howardray@shaw.ca

SVIMS list serve master

Adolf Ceska aceska@telus.net

To broadcast a message to SVIMS members via email: svims-l@victoria.tc.ca

SVIMS web site: www.svims.ca

Dues: \$20.00 per year per household, payable in January by cheque made out to SVIMS 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.

Monthly Meetings:

For the new year SVIMS is adopting a more environmental approach. We are asking members to bring their own cups/mugs for coffee and tea. This will cut down on our Styrofoam cup usage each month.

January 19: Survivors Banquet

Where: Strawberry Vale Community Hall, 11 High Street (at West Burnside Road)

Cost: \$2 per person to help defray hall rental costs

Please bring:

1) A potluck dish big enough to serve 6 and a serving utensil. Mushroom dishes are welcome but not required. Prepare a label for your dish that describes what is in it.

2) Your own plate, utensils, cup.

SVIMS provides: coffee and tea. There is a small stove and microwave oven for quick re-heating of your culinary contributions.

Raffle: Part of our entertainment for the evening will be a raffle of silly or sensible items. Bring one and only one unwrapped item to contribute to the fun.

Help: Set-up begins at 5 pm and help is welcomed for moving tables, chairs and such. Or stay after to help clean up.

February 7: Paul Kroeger VMS, *How Tricholoma apium saved Mount Elphinstone*

March: Lorelei Norvell, *TBA*

April: Daniel Winkler, *Tibetan mycology*

May: Adolf and Oluna, *Four years of mushroom survey on Observatory Hill*

June: picnic/BBQ

Prez Sez

The year just past brought lots of interesting news from the Kingdom Fungi, from giant truffles being auctioned for \$330,000 to the spread of *Cryptococcus gattii* from Vancouver Island to the Puget Sound.

It is certain that 2008 will bring us more of the same, starting with the Survivors Banquet where you can catch up on news, fungal or otherwise, from fellow mushroomers who may have traveled far and wide since last we foregathered. The 2008 program promises to spark your interest starting with Paul Kroeger's presentation on fungal conservation at our February meeting and touching at later meetings on fungi in such exotic places as Tibet and the Centre of the Universe.

Encouraged by the recent impressive display of volunteerism (thanks to the 11 SVIMS members who volunteered to phone non-email SVIMS members to remind them of the upcoming Survivors Banquet), I look forward to 2008 as a year of active participation in SVIMS and in learning about and enjoying the fabulous, fantastic, fearsome fungi.

Shannon Berch

FAR AWAY EVENTS AND FORAYS:

Sonoma County Mycological Association (Soma) Wild Mushroom Camp

- January 19, 20 & 21, 2008
- Held in the beautiful hills of Western Sonoma County in the town of Occidental
- \$275 Full Weekend
- \$215 with offsite lodging
- \$125 Sunday only
- Includes lodging in shared cabins, all meals, and great mushroom camaraderie. Three days of great fun!
- Expert speakers--TBA! Forays, classes & workshops, artwork, specimen tables, feasting, presentations, mushroom chefs and much more!

- Register online at www.SOMAmushrooms.org or contact: SOMAcampinfo@SOMAmushrooms.org or call (707) 773-1011

MYCOLOGICAL WEBSITES

www.coasttocoastam.com/gen/page2231.html?theme=light

Pictures of Bleeding Tooth Fungus

www.washingtonpost.com/wp-dyn/content/story/2007/12/30/ST2007123002265.html

Interview with Taylor Lockwood's in the Washington Post. Includes a photo gallery.

ARTICLES OF INTEREST

WHAT ARE "SAPROPHYTIC" PLANTS ALL ABOUT?

Following is the first paragraph of an article by Bryce Kendrick published in the most recent issue of The Victoria Naturalist. The entire article can be read at:

www.vicnhs.bc.ca/Nat_Jan_Feb_07.pdf

Those of us who penetrate the depths of our local forests inevitably come across plants that have no chlorophyll. Indian pipe (*Monotropa uniflora*) is the most common of these, but there are others, including the rare phantom orchid (*Cephalanthera austini*). These have generally been called saprophytic plants, the assumption being that, since they can't make their own food by photosynthesis, they must be absorbing nutrition from the decaying remains of other organisms in the soil as, for example, many fungi do. We have recently learned that this is *not* the case, and that none of these achlorophyllous plants are, in fact, saprophytic. So what is really going on? The somewhat weird relationships between the non-photosynthetic flowering plants in that strange sub-group of the Ericaceae, the Monotropoideae, and other organisms, have recently been clarified, in particular by the work of Martin Bidartondo and his associates in California.

SCIENTIFIC CLASSIFICATION

by Jim Sherry

From the *Mycological Association of Washington, DC* – June 2007

Scientific classification of living things is referred to as “taxonomy”. It began with Aristotle, who divided all living things into plants and animals. Others made contributions down through the centuries but it was Carolus Linnaeus, a Swedish botanist, who, in the 1750s, provided the system that is used today. Like Aristotle, he divided living organisms into two “kingdoms”: plants and animals- and then provided ranks for increasing smaller subgroups within each kingdom: phylum, class, order, family, genus and species.

Today these ranks are referred to as taxa (singular, taxon). Since fungi did not move and had cell walls like plants, Linnaeus put fungi into the plant kingdom. After microscopes were invented, things for biologists were never the same. In 1860, Hogg and Haeckel proposed *Protoctista* as a third kingdom, which included fungi, algae, bacteria and protozoans. This was an ashcan group whose members did not have much in common and so no one was pleased with this kingdom. In 1938, Copeland took bacteria out of the third kingdom and placed it in a fourth kingdom, which he called *monera*. Then, in 1969, Whittaker, at Columbia University, proposed that we put fungi into its own kingdom and this then made a fifth kingdom and he also proposed that the name *Protoctista* be changed to *Protista*.

Most biology textbooks today still list Whittaker’s five kingdoms but some biologists now say that there are six kingdoms and some say that there are eight. Most people don’t care because the organisms that are causing all the difficulty cannot be seen without a microscope. And this story is not done yet: In the past few years another proposal stated that there are three domains and that plants, animals and fungi should be placed in one domain and that the other two domains should be composed largely of two types of bacteria.

(The history that I just outlined will vary,

depending on which author you read.). And still we are not done: The cladists want to put all of life into clades (pronounce like maids) and then name the clades. They are not even interested in domains or kingdoms. All of this demonstrates that science is a human endeavor and that organisms like fungi could care less, but then there’s the crowd that thinks that fungi might have some awareness - well Nicholas Money reported that he heard hyphae “screaming.”

SVIMS ANNUAL MUSHROOM SHOW

The 2007 SVIMS mushroom show was a great success with over 230 different species collected. The attendance was also good. Many thanks to all of you who helped with the show!

WHAT LIES BENEATH: A NEW MUSHROOM

By Paul Fattig, *Mail Tribune*

November 20, 2007

SHADY COVE — Hydrologist Robert Coffan knew he was looking at something very unusual in the knee-deep summer waters of the upper Rogue River. Here



were gilled mushrooms, swaying in the main current of the clear, cold river in early July through late September.

"But since gilled mushrooms DO NOT live and grow underwater, I was real nervous" about approaching a mycological expert, admitted the adjunct professor at Southern Oregon University.

Indeed, Darlene Southworth, a retired SOU biology professor, was plenty skeptical when he broached the subject. Although she was impressed by underwater photographs taken by Coffan, she wanted to see the evidence firsthand.

Not only did she witness the mushrooms found by Coffan, but she discovered others during an August visit to a stretch of the north fork of the river within a few miles of Woodruff Bridge in the Rogue River-Siskiyou National Forest.

"There are no known gilled mushrooms living underwater," Southworth explained. "And this is not a slime mold or anything like that. These are regular gilled mushrooms.

"We believe this is a new species," she concluded of the mushrooms that are typically about 10 centimeters tall with caps that are about 2 centimeters wide.

The find was unveiled Monday night at the November meeting of the Upper Rogue Watershed Association, for whom Coffan had prepared a water assessment last year.

Dubbed *Psathyrella aquatic*, the mushroom is being introduced to the broader scientific community in a 14-page paper submitted Nov. 9 to the science journal *Mycologia*. The paper was written by Coffan in collaboration with Southworth and Jonathan Frank, a laboratory technician at SOU.

Coffan credits Southworth, who now conducts research under a National Science Foundation grant at the university,

for focusing on mycorrhizal fungi, and Frank for the paper and much of the research in determining the mushroom's uniqueness.

Up at Oregon State University, Matt Trappe, a doctoral candidate in forest mycology, says Coffan has found a unique mushroom. He and his father, Jim Trappe, a retired U.S. Forest Service mycologist who now teaches in OSU's botany and plant pathology department, were consulted on the find.

"As far as we've determined, this is a first in Oregon as well as a first in the world," Matt Trappe said of gilled mushrooms living in water. "We're not aware of anything at all like this in mycology where the reproductive mushroom structure appears to be perennially underwater.

"If this evolved in Oregon, what are the odds it can be found in streams and rivers around the world?" he asked. "This raises all kinds of questions about spore disbursement and evolution."

There are more questions than answers at this point, acknowledged Coffan, who originally discovered the water-dwelling gilled mushrooms in summer 2005. None of the mushrooms were found in slack water, he noted.

A DNA analysis at SOU's Bio Tech Center and a cross-check of references and experts, including mycologists at the University of Minnesota, determined the mushrooms belonged to the genus *Psathyrella*, Southworth said. Samples were sent to OSU and to San Francisco State University.

There are about 600 known species of *Psathyrella*, all terrestrial, she said.

"How do we identify them? We look at the morphology — the form, the shape and the DNA," she said.

It has a small bell-shaped cap, a thin stipe (stem) and gills underneath, she said. They examined the cells in the cap and made a spore print.

Researchers have ruled out the possibility the mushrooms were growing along the banks and were merely submerged by rising waters brought on by snowmelt.



The mushrooms were found in the spring-fed "base" flow of the river, Coffan said, noting that flow is consistent and keeps the mushrooms submerged.

The mushrooms tend to grow on submerged wood but can also be found growing in the gravel, Southworth said.

"These are growing in the same place for three months," she said, adding they have been found as late as Sept. 21.

Although there are some known freshwater aquatic fungi, this is the only known gilled mushroom that grows underwater, she reiterated.

"We noticed there is a gas bubble underwater," she said. "When we pulled the mushroom out, we could hold it up for some seconds before the spore burst. But they would not be uniformly distributed. They would stick to the cap, to the stipe, to Jonathan's fingers."

They don't know what the gas is, she noted. They are also intrigued by its three-month fruiting season.

"That's way long for mushrooms," she observed.

As for their edibility, Southworth figures the waterborne mushrooms are too small to warrant collecting for food.

However, several of the terrestrial Psathyrella are edible, although most have never been tested as a food source, according to her research.

"There is no reason it would go toxic," she observed of a member of the genus growing in water.

Meanwhile, Coffan, Southworth and Frank plan to return to the area to conduct further research to try to determine the extent of the mushroom's habitat. They also want to check out other streams in the region for evidence of the mushrooms.

"But it will be next summer before that is feasible," she said. "Right now we can describe this one river: It's aerated, cold, clear, steady flow. But we want to find out how the spores are dispersed."

"And we want to find out how unique the habitat is," Coffan said. "We have a whole new area to look for mushrooms now. It's mind-boggling."

Reach reporter Paul Fattig at 776-4496 or e-mail him at pfattig@mailtribune.com.

ITALIAN MONGREL LEADS OWNER TO RECORD-BREAKING TRUFFLE

Tom Kington in Rome

Monday November 26 2007

The Guardian

A mongrel dog named Rocco helped make history in a Tuscan wood when he led his owners to a 1.5kg (3.3lb) white truffle, the largest unearthed in half a century and now expected to break auction records.

"I had to tie Rocco up, he was so excited," said truffle hunter and trader Cristiano Savini, who spent more than an hour on his hands and his knees with his father, Luciano, carefully digging down 80cm (2.6ft) to find the truffle at a secret countryside spot near Pisa on Friday.

As crowds gathered at a local truffle fair over the weekend to breathe in what Savini described as "the incredible smell" of the truffle -second in size to a 2.5kg truffle found in 1954 and presented to President Eisenhower - news spread, and the knobbly, soil encrusted truffle will now go under the hammer on Saturday in Macau during a charity auction attended by millionaires flying in from Hong Kong.

"We hope to get the truffle blessed by the



Specimens from the SVIMS Mushroom Show at the Swan Lake Nature Centre. Photo: Vye Graves-Young

Pope before it flies out, but things need to move fast as white truffles should be eaten within 20 days," said auction organiser Giselle Oberti. "I expect we can beat the record 140,000 euro paid for a smaller white truffle recently."

Rarer and more pungent than black truffles, the white *Tuber magnatum* pico is found in Italy and Croatia, although yields are down this year after a dry summer. "The truffle we found benefited from the 15 days of rain we have just had," said Savini.

The weekend auction will be held at three sites linked by satellite in Macau, Florence and at the Refettorio restaurant in London run by Italian chef Giorgio Locatelli. Locatelli said the successful bidder should eat the truffle fast to avoid the fate of the 700g specimen for which a group said to include Roman Abramovich and Gwyneth Paltrow bid 28,000 pound at another charity auction in 2004, only to see it go mouldy in the safe of a London restaurant. "Keep truffles simple," he advised.

"Risotto with white truffle is the king since the rice keeps its heat and makes the truffle sweat and release flavour."

Despite the thousands of pounds set to be paid for his find, Savini said he was happy to see it all go to charity. "This truffle was a gift from God," he explained. Rocco the dog would, however, be rewarded with a new kennel.

Haiku

It is no dream!

Matsutake are growing

On the belly of the mountain!

GIANT TRUFFLE SOLD AT AUCTION

Sun Dec 2, 2007 9:03am GMT

<http://uk.reuters.com>

HONG KONG (Reuters) - One of the biggest truffles found in half a century -- a 1.5 kg (3.3 lb) specimen unearthed in Italy late last month -- has sold for \$330,000 (161,000 pounds) at an auction held simultaneously in Macau, London and Florence. The giant fungus was presented on a silver platter by an Italian chef flanked by Chinese models to the flash of cameras ahead of the auction at Macau's Grand Lisboa Hotel.

"I can say it's very odd. Normally truffles are more round. This looks like the brain of a man ... but it's nice, very nice," said Alfonso Iaccarrino, Italian chef at the Lisboa Hotel, who posed with the mushroom and prepared a four-course meal featuring white truffle dishes at the gala auction event.

The winning bid on Saturday night came from Macau casino mogul Stanley Ho, bidding by phone via his partner Angela Leong. The South China Morning Post said Ho beat British artist Damien Hirst and Sheik Mansoor Bin Zayed al Nahyan of Abu Dhabi for the prized fungus. Truffles can vary considerably in size and are prized in Italian cooking for their flavour and aroma.

Proceeds from the auction were donated to charities including the Caritas in China, Consortium for Street Children in the UK, and the Telethon in Italy. The giant truffle,

MAIDS AND MUSHROOMS

By Abbie Fawell Brown
Reprinted from Spore Prints,
#436, November 2007

Oddly fashioned, quaintly dyed,
In the wood the mushrooms hide;
Rich and meaty, full of flavor,
Made for man's delicious savor.
But he shudders and he shrinks
At the piquant mauves and pinks.
Who is brave enough to dare
Curious shapes and colors rare,
Something sinister must be
In the strange variety.
It is better not to know;
Safer but to peer—and go,
So the mushrooms dry and fade,
Like full many a blooming maid,
With her dower of preciousness
Hid too well for men to guess.
But the toadstools bright and yellow
Tempt and poison many a fellow,
With their flaunting beauty bright,
The bold promise of delight.
Taste and suffer, ache and burn;
Generations do not learn!
Nay, a little mushroom study
Would not injure anybody.

and one of about the same size sold to a Hong Kong bidder last year, were the largest found since a 2.5 kg truffle was found in 1954 and presented to former U.S. President Dwight Eisenhower, according to media reports.

FIRST CONTEMPORARY CASE OF HUMAN INFECTION WITH *CRYPTOCOCCUS GATTII* IN PUGET SOUND: EVIDENCE FOR SPREAD OF THE VANCOUVER ISLAND OUTBREAK.

2007. Upton, Fraser, Kidd, Bretz, Bartlett, Heitman, Marr. J Clin Microbiol. 45: 3086–3088.

In 2001, an emergence of *Cryptococcus gattii* on Vancouver Island, British Columbia, Canada, was identified, with clinical cases in both humans and other animals dating back to 1999. Environmental sampling identified *C. gattii* associated with trees and with the soil, debris, and air around the trees. Genotypic analysis revealed that virtually all environmental and clinical isolates belong to the VGII genotype of *C. gattii*. Given the close proximity, climatic and geographic similarities to Vancouver Island, and potential clinical importance, we have sought to determine whether this pathogenic microbe has spread to the Puget Sound area in the United States.

Prospective surveillance from January 2005 identified one case of cryptococcosis due to *C. gattii* in a 74-year-old man. The patient lives on Orcas Island in the Puget Sound with his wife. Their home is in a semirural setting with numerous Douglas fir trees on the property. To determine whether *C. gattii* has established itself in this locale, environmental sampling was undertaken at his property. We have been unable to isolate *C. gattii* from the environment around his home; therefore, the source of infection remains unclear. *C. gattii* may have been transiently present in the area at the time of disease acquisition or may be present below the limits of detection.

The expansion of the *C. gattii* niche beyond Vancouver Island is further

supported by recent accounts of human cases of *C. gattii* infection without travel to Vancouver Island identified on mainland British Columbia. In addition, *C. gattii* (genotyping pending) infection has been diagnosed in four porpoises found washed up on Washington State beaches since 2004. *C. gattii* infection has also been diagnosed in three domestic cats from Whatcom County, Washington State; isolates were determined to be the VGIIa genotype.

The Vancouver Island emergence is associated with the highest reported incidence of human cryptococcosis in the world, with significant morbidity and mortality. Continued surveillance of human and veterinary cases and environmental sampling in the Pacific Northwest are essential to provide more understanding of this emerging infection.



A busy SVIMS Mushroom Show.
Photo: Ken Wong

SUBMIT TO FUNGIFAMA!

If you have pictures, articles, a website link or anything of interest to SVIMS members, send it to hleary@shaw.ca for possible inclusion in the next issue of Fungifama.

COWICHAN FORAY

Despite a rainy start to the weekend an enthusiastic group of foray participants spent time in the woods. We collected over 160 species, some of them quite rare (including *Tricholoma apium*). The Chanterelles were extremely plentiful, making it a successful foray for all.

Photos: Heather Leary



An enthusiastic group sets out for the day.



Examining mushrooms in the field.



A lucky matsutake discovery.



Some of the finds were a bit unusual.

Caution: The South Vancouver Island Mycological Society (SVIMS) newsletter, Fungifama, is not intended as an (online) identification or medicinal guide to mushrooms. There are risks involved in eating and in using wild mushrooms. The possibility may exist that you are allergic to a specific mushroom, or that the mushroom may be anomalous. SVIMS, Fungifama and the authors on this site warn that the reader must accept full personal responsibility for deciding to use or consume any particular specimen.



Oluna reviews specimens.