

Fungifama



The Newsletter of the South Vancouver Island Mycological Society
October 2007

Introducing the SVIMS Executive for 2007

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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:

November 1:

Fungi of the Olympic Peninsula by Dr. Thom O'Dell, The Remediators, Inc., Port Anglese, WA

At this meeting, we will also hold our annual election of SVIMS executive. We invite everyone to consider making this very important yet fun contribution to our mushroom club.

December: no meeting

January: Survivors Banquet, details TBA

February 7: Paul Kroeger VMS, details TBA

Past Prez Sez

By Christine Roberts

The season got off to an early start this year due to a few abrupt changes in weather, one day cold, the next warm and sunny, the next soggy and wet. This seems to have triggered fruitings of chanterelles, boletes and of course Russulas and lobster mushrooms. While not in great swathes like in 2004, you can pick a nice basketful of assorted mushrooms for the table or for interest.

Mushroomers in Terrace hoping to make a few bucks on pine mushrooms are facing low prices from buyers- \$1 a pound, but the Boletes are \$8 a pound. I guess that means that the matsutake are keepers for the home table this year.

Talking of pine mushrooms, many folk's favourite picking spot, Blueberry Flats,

has been decimated by Timber West in favour of the more lucrative crop of houses. This means that the home of the rare and beautiful blue *Albatrellus flettii* and *Albatrellus caeruleoporus* and the also rare *Tricholoma apium* have lost their habitat. This latter species was central to the saving of Mount Elphinstone on the Sunshine Coast from the loggers. Could we have saved Blueberry flats? Who do we tell who has the power to stop such destruction of unusual habitat, and how do we get such powerful people on our side? Can we stop further destruction? These are all questions that we need to ask ourselves, and perhaps get some advice from those who saved Mount Elphinstone. Barbara Rosalska brought to the September meeting a *Polyporoletus sublividus*, this rare mushroom, which she found on Mount Washington in the forests below the ski park, hasn't been found for many years.

Polyporoletus sublividus looks like an *Albatrellus*, to which it is related, and grows on the ground. It has white spores with an unusual microscopic structure - they are double walled with connections between the walls. The mushroom stains slowly blue-green where damaged. Jim Ginns, a polypore expert says the following:

“On the ground under *Abies lasiocarpa*, *Tsuga heterophylla*, *T. mertensiana* in the subalpine zone. Presumably attached to tree roots and possibly mycorrhizal. Rare, only five BC collections are known: Cowichan Lake 1929, Courtney 1963, Callahan Lake 1994 (Whistler area), Sleese Lake 2006? (Chilliwack area), and Garibaldi Provincial Park 2003. Also known in western North America in ID and WA.”

Our fall foray this year to Cowichan lake is coming up and what with the interesting weather we should find some unusual species this year. I hope the mild, damp weather holds until our mushroom show in November, if so it will be another brilliant event.

LOCAL EVENTS AND FORAYS:

"Can I Eat That Mushroom? A Mycological Adventure" with Jim Jones

- October Sat 20 & Sun 21, 9am-5pm
- Royal Roads
- \$155
- 391-2600, ext. 4801,
- www.royalroads.ca/continuing-studies/GLNA1305-Y07.htm

Swan Lake Mushroom Show

- November 4, 2007
- Swan Lake Nature Centre, Victoria BC
- Collect fungi the days before the show and bring them to Swan Lake on the 3rd for our experts to identify and display
- Come to the show on the 4th to experience the fabulous diversity of our local fungi

FAR AWAY EVENTS AND FORAYS:

Vancouver Mycological Society Mushroom Show

- October 28, 2007
- www.vanmyco.com



Wild Edible Mushroom Workshops

At Wildwood Ecoforestry site in Yellow Point. With biologist Jessica Wolf. Aimed at beginners, this show-and-tell workshop teaches the basic skills to identify a selection of “easy edibles” and distinguish them from poisonous mushrooms. Edibles identified include chanterelles, hedgehogs, lobster, morel, oyster and pine.

- Nov. 3rd 9am - noon
- Nov 4th 1 - 4pm.
- \$35
- Advance registration required. Partial proceeds to The Land Conservancy of BC. Call (250) 722-2292 for info or email photo@jessicawolf.ca

MSSF Mendocino Woodlands Foray

- Annual MSSF Mendocino Woodlands Foray November 9 – 11
- Mendocino Woodlands camp, in the mushroom-rich hills above the town of Mendocino in northern California.
- Brian Perry, an authority on the Mycenoid fungi, will be the foray mycologist. He will be assisted at the specimen tables by Norm Andresen and Mykoweb's Mike Wood. Brian will also do a presentation Saturday night on bioluminescent fungi.
- Classes include mushroom dye, papermaking, identification, photography, and cultivation, including a mushroom-kit-making session.
- Fee of \$140 includes lodging, meals, and all forays, classes, and events. Kids under 13 half price (w/ adult), under 5 free. \$90 with offsite lodging.
- Registration form available online at www.MSSF.org/mendo, or send cheque with names and all contact info to: Liana Hain - MSSF 49 Hancock St. San Francisco, CA 94114.
- Questions? Call 707-829-2063 or 650-728-9405 or e-mail mendo@MSSF.org

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.ecuador-images.net/fungi.htm
Mushrooms and lichens in Ecuador

www.swissinfo.org/eng/swissinfo.html?siteSector=105&sid=8167417

Nearly a third of Switzerland's mushroom species are under threat, either from pollution or from agriculture and building projects...

http://www.livescience.com/strangenews/070423_mystery_fungus.html

A giant mystery organism more than 350 million years old has finally been identified as a humongous fungus. The enigma known as *Prototaxites*, which stood in branchless, tree-like trunks up to more than 20 feet tall and a yard wide, lived worldwide from roughly 420 million to 350 million years ago...

ARTICLES OF INTEREST

Milk thistle remedy might treat mushroom poisoning. Promising European solution must clear regulatory hurdles

By Judith Lavoie Times Colonist staff

Treatment for anyone in Canada suffering from severe mushroom poisoning is almost non-existent, but an application has been made to Health Canada for approval of a possible remedy.

An injectable solution of milk thistle seed, with the brand name Legalon, manufactured in Spain and distributed through a German company, is used to treat mushroom poisoning in Europe.

"We are working with Health Canada to get it approved here," said Peter Tilbury,



It's Chanterelle season!

Photo by Heather Leary

sales director of Surrey-based Euromed Canada.

The application was made more than a week ago and it is not known how long it will take to get approval, he said.

The B.C. Coroners Service warned last week that eating wild mushrooms can be deadly. An investigation into the death of 18-year-old Morgan Makowecki of North Saanich one year ago showed she died of mushroom poisoning.

Until last month her family believed she had died of a rare liver disease.

Amanitin is a lethal toxin found in at least three wild mushrooms that grow in B.C.

Two of the poisonous species – *Galerina autumnalis* and *Conocybe filaris* – are almost impossible to tell from magic mushrooms. Even experts refer to them as “little brown mushrooms” because of the difficulty in telling them apart.

Paul Harris, poison information pharmacist at B.C. Drug and Poison Information Centre in Vancouver, said medical staff would welcome anything that could help with amanitin poisoning, which destroys the liver.

“The problem is that options for treatment are so limited,” he said.

Legalon is used in Europe, but there is limited scientific data in Canada, Harris said.

“It is certainly an option that is not available to us now, but no one has a clear

understanding of whether it alters outcomes,” he said.

Toxicology is not an exact science “because you can’t do randomized tests on people to see what works,” Harris said.

There are probably about a half-dozen poisonings a year in B.C. that would warrant the use of the milk thistle extract, he said.

“It could be used on any patient where things are looking pretty dire and they’ve run out of options.”

In Santa Cruz, Calif., doctors pulled out all the stops this year to import Legalon after a family of six accidentally ate *Amanita phalloides* – the death cap mushroom.

The Food and Drug Administration granted emergency permission for Legalon to be brought into the country as an investigative new drug. It was flown by courier from Germany to San Francisco.

Five of the six family members eventually survived.

Timing is crucial in mushroom poisoning and anyone who suspects he or she may have eaten deadly mushrooms has a window of about 12 hours to try treatment such as activated charcoal and dialysis.

Medicinal mushrooms: their therapeutic properties and current medical usage with special emphasis on cancer treatments.

John E Smith, University of Strathclyde and MycoBiotech Ltd, Singapore

Neil J Rowan, University of Strathclyde
Richard Sullivan, Cancer Research UK

Many of the currently available anti-cancer agents are derived from natural products, for instance paclitaxel (Taxol), and camptothecin (Hycamtin) amongst many others. In 2000 Professor Gordon McVie, Director-General of the Cancer Research Campaign (now Cancer Research UK) and Professor John Smith of University of Strathclyde met in Glasgow to discuss the role of medicinal mushrooms in the treatment of cancer.

The CRC had become aware that these natural products were being used extensively in the Far East as nutraceuticals

(dietary supplements) and as a source for the generation of pharmaceutical-grade medicines to treat a wide variety of diseases, including cancer. The substantial range of medicinal mushroom species from which different bioactive compounds can be derived suggested that the humble mushroom could be a source of novel anti-cancer agents.

This monograph is a comprehensive overview of this subject from the technology of cultivation, extraction and chemistry of medicinal mushroom bioactive compounds to the clinical evidence that suggests an important therapeutic role in cancer, and other major diseases.

www.glyconutrients-center.org/mushrooms-medicinal-cancer.php

The Fungal Pharmacy- Medicinal Mushrooms of Western Canada

Book review appeared in Mycelium, The Newsletter of the Mycological Society of Toronto, Volume 33, No. 2

This is the latest book from Robert Rogers, a retired clinical herbalist of 18 years, and a student of native plants and fungi from the Canadian prairies for over 35 years. This illustrated book covers the wide range of Western Canada fungi having medicinal properties, detailing various properties of each, gleaned from a large number of sources, and includes many fungi with which our members will be familiar. It also includes commentary on traditional uses, essential oil extracts, mycoremediation, myths and legends, anecdotes from around the world and a bibliography.

*Published by Prairie Deva Press, 2006
ISBN: 0-9781358-1-4; 232 pp; \$39.95.*

*The author may be reached at
scents@telusplanet.net*

Phellinus linteus

Mushroom news from the Daily Mail

An exotic mushroom dubbed “the elixir of long life” could be the latest weapon in the fight against cancer. A group of scientists has found that extracts of the

medicinal fungus *Phellinus linteus* can help in treating prostate cancer. Previous studies have suggested that the mushroom extracts found on wild mulberry trees can be effective in treating liver, stomach, and lung cancer as well as other serious conditions. The rare mushroom, known as “Song gen” in China and “meshimakobu” in Japan, has long been known for its medicinal properties. As published in NAMA’s newsletter, *The Mycophile*, November/December 2006.

I once knew a hunter named Sven
He only picked now and then
He would pick without thinking
Then think without picking
His approach was totally Zen

*by Charmoon Richardson
SOMA News, Sonoma Co. Myco. Assoc.
Jan 2005*

Radiation-hungry fungi could clean up waste

CBC News

Scientists have found some fungi can turn radiation into an energy source for spurring growth, a discovery that could prove useful in cleaning up radioactive sites or provide a food source on future space missions.

Fungi have been long known to feast on a menu that other life forms would consider indigestible: plastic, asbestos and cardboard, to name a few. Fungi have also been known to consume radioactive material, a dietary ability found in bacteria such as *Deinococcus radiodurans*.

But the ability of fungi to break down the radiation and convert it into energy is a previously undiscovered trait.

Researchers at the Albert Einstein College of Medicine at Yeshiva University also connected the ability to convert radiation to the amount of melanin present in fungi. Melanin is a dark pigment also found in human skin that helps protect us from the sun's ultraviolet rays.

"Just as the pigment chlorophyll converts sunlight into chemical energy that allows green plants to live and grow, our research suggests that melanin can use a different portion of the electromagnetic spectrum — ionizing radiation — to benefit the fungi containing it," said Ekaterina Dadachova, associate professor of nuclear medicine and microbiology and immunology at Einstein and the lead author of a study published in the scientific journal *PLoS One*.

Senior author Arturo Casadevall said he began the study five years ago when he read on the web that a robot sent into the Chernobyl power plant in Ukraine after the 1986 meltdown had returned with samples of black, melanin-rich fungi growing on the reactor's walls.

The researchers exposed several types of fungi to radiation from the decay of cesium-137, an isotope of cesium created as a byproduct of the nuclear fission of uranium and plutonium.

Two types of fungi — one of which was induced to create melanin and another where the pigment occurred naturally — both grew significantly faster when exposed to radiation levels 500 times higher than those we are normally exposed to on Earth. Fungal strains without melanin did not grow any faster when exposed to radiation.

The researchers said fungi that convert radiation could be useful for nuclear cleanups or in outer space, where ionizing radiation is more prevalent.

"Astronauts might be able to rely on fungi as an inexhaustible food source on long missions or for colonizing other planets," said Dadachova.



Photo by Norm Evans

Oldest Known Mushroom Found

From the Portland Oregonian, 6 June 2007, forwarded by Dr. Bob Bandoni

An Oregon scientist and a Kentucky nurse have found the oldest known mushroom, entombed in a 100-million-year-old piece of amber from Burma.

A closer examination of the nine-hundredths-inch-long mushroom cap revealed that it had been infected by an ancient parasite, which a second parasite was feeding on.

"I was amazed enough with the mushroom," said George Poinar, a retired entomology professor in Corvallis. "But then seeing the parasites was astonishing. No one has ever seen this three-tier association before."

Poinar, formerly of the University of California at Berkeley, said the mushroom was spotted about a year ago by Ron Buckley, a registered nurse and amber-fossil collector and photographer from Florence, Ky. Buckley sent the amber specimen to Poinar, who confirmed the discovery and found the two parasites.

"This shows how far back mushrooms -- and the parasites that infect them -- go," Poinar said. "They're similar to pinwheel mushrooms that grow on the bark of modern trees. They dotted the trees 100 million years ago, so they probably were tasty treats for the dinosaurs to nibble on."

Poinar, a courtesy zoology professor at Oregon State University, and Buckley reported their discovery in the journal *Mycological Research*.

Amber is fossilized tree resin, a sticky substance that oozes from certain pine and legume trees. The resin has chemical properties that act as a natural embalming agent for the ancient creatures that become trapped in it.

"I knew right away what it was when I looked at it under the microscope," said Buckley, who has been collecting amber fossils for the past eight years. "I sent the specimen to George right away because of his expertise, and he found those parasites. This is an incredible find."

Poinar received widespread attention last year for his discovery of the oldest bee -- a 100-million-year-old specimen from the same area in northern Burma where the amber is mined. Four kinds of flowers also were embedded in the amber.

The mushroom is about 20 million years older than previously found mushroom fossils. The amber apparently broke off the mushroom's stem, sealing it along with small pieces of the tree's bark and other debris.

Joseph Spatafora, a fungi specialist and a professor of botany and plant pathology at OSU, said the amber discovery is significant because mushroom fossils are rare. Few ancient mushrooms -- the fruiting bodies of fungi -- survive because they lack bones or shells that help preserve other organisms.

"So the amber specimen can give us a lot of insight to what fungal diversity was at this time in the past," Spatafora said, and gives scientists an idea about fungi's role in forest ecosystems.

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Ecology And Management Of Morels Harvested From The Forests Of Western North America

By Pilz, David; McLain, Rebecca; Alexander, Susan; Villarreal-Ruiz, Luis; Berch, Shannon; Wurtz, Tricia L.; Parks, Catherine G.; McFarlane, Erika; Baker, Blaze; Molina, Randy; Smith, Jane E. Gen. Tech. Rep. PNW-GTR-710. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 161 p.

Morels are prized edible mushrooms that fruit, sometimes prolifically, in many forest types throughout western North America. They are collected for personal consumption and commercially harvested as valuable special (nontimber) forest products. Large gaps remain, however, in our knowledge about their taxonomy, biology, ecology, cultivation, safety, and how to manage forests and harvesting activities to conserve morel populations and

ensure sustainable crops. This publication provides forest managers, policymakers, mycologists, and mushroom harvesters with a synthesis of current knowledge regarding these issues, regional summaries of morel harvesting and management, and a comprehensive review of the literature.

Available online for free downloading at:

www.fs.fed.us/pnw/publications/gtr710/

It is large, so it is divided into 4 segments and might take a while to download. It can also be downloaded in a single document from

www.peak.org/~pilzwald/TemporaryDownload/MorelGTR/

Hard copies are also free on a first come first served basis from the Research Station until they run out. Contact information at:

www.fs.fed.us/pnw/publications/order.shtml

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.

TAYLOR LOCKWOOD NEW BOOK

Chasing the Rain: My Treasure Hunt for the World's Most Beautiful Mushrooms

It's loaded with new mushroom photos, photos of people and places, stories of Taylor's mushroom-hunting expeditions around the world and also includes the story of how he got his start and insights into his photo techniques. If you liked *Treasures from the Kingdom of Fungi* you will enjoy *Chasing the Rain*. To place an order visit

Eating Wild Mushrooms...A Pleasure That Is Not Without Risk

Confirmed mycophagists, those humans more commonly known as “mushroom eaters”, have certain guidelines that are necessary for surviving the joys of harvesting and consuming wild mushrooms. Many people either do not relish wild mushrooms or are too timid to trust their identification skills. There are hardy souls who prowl the springtime timber seeking their favored fungi.

“Ten Commandments”

by R. V. Gessner, Department of Biological Sciences, Western Illinois University

1. Never eat a mushroom unless it is positively identified as edible.
2. Eat only fresh mushrooms that are free from insect infestation.
3. Thoroughly cook all mushrooms unless they are specifically known to be edible raw. (SVIMS caution: ALWAYS cook all mushrooms)
4. Eat mushrooms only in moderate quantities.
5. When trying a mushroom for the first time, eat only a small portion, and don't try any other kinds for 48 hours.
6. Don't pick mushrooms from contaminated habitats.
7. Never assume that a wild mushroom you find overseas is the same edible species you know from North America.
8. Be conservative about feeding wild mushrooms to children, the elderly and the infirm.
9. When trying a mushroom for the first time, save a few intact, uncooked, specimens in the refrigerator for 48 hours.
10. Examine every specimen in every collection of mushrooms to avoid inadvertent mixing of different species.

“Additional Cautions”

1. Do not eat any Amanita, Amanita look-alikes or any white mushrooms.
2. Avoid little brown mushrooms (LBM), large brown mushrooms with pinkish, brownish, purple-brown or black gills.
3. Avoid false morels.
4. Eat only firm, fresh young specimens.
5. Do not drink alcohol, even in moderation, when eating wild mushrooms.

Refrigerate and use as quickly as possible.

Happy ‘Shrooming

Membership News:

Welcome, new members Karen Platt, Chris Denny, and Paul Price from Victoria, and Isabelle Robillard from Campbell River.

Christine Roberts successfully defended her PhD this summer at the University of Victoria on *Russulas of Southern Vancouver Island Coastal Forests*. Excellent work, Dr. Roberts!

Joyce Lee is in Ecuador teaching ESL.

Renata Outerbridge and John Dennis are in Poland.

Richard Winder attended Rhizosphere2, a conference of the International Society for Microbial Ecology in Montpellier, France in August.

Sharmin Gamiet attended the 5th International Conference on Edible Mycorrhizal Mushrooms in Chuxiong, China in September.