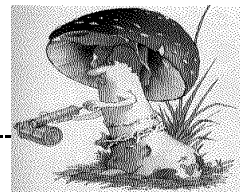


Fungifama



The Newsletter of the South Vancouver Island Mycological Society
May 2011

Introducing the SVIMS Executive for 2011

President

Jean Johnson jeanjohnso@islandnet.com

Vice President

Lee Smith Islandsclapes@shaw.ca

Past President

Richard Winder sidewinder@spamcop.net

Treasurer

Barbara Pendergast bapender@gmail.com
with help from Teresa Klemm tklemm@islandnet.com
with help from Jeff Hutjens hutjens1@telus.net

Membership

Barbara Pendergast bapender@gmail.com

Secretary

Jean Johnson jeanwade@islandnet.com

Fungifama Editor

Heather Leary hleary@shaw.ca

250-385-2285
shannonberch@telus.net

Shannon Berch

Librarian

Helga Wolnicki wolnicki@shaw.ca

Webmaster

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

Directors at large

Bruce Pendergast bapender@gmail.com
Kevin Trim kevintrim@shaw.ca
Sinclair Philip sinclair@sookeharbourhouse.com

Foray Organizers

Adolf & Oluna Ceska aceska@victoria.tc.ca

Refreshments Organizers

Diane Humphrey catch22bc@gmail.com

SVIMS list serve master

Kevin Trim kevintrim@shaw.ca

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 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.

A reminder to pay your dues Cheques can be sent to SVIMS c/o Barbara Pendergast, Treasurer Barbara Pendergast 350 Benjamin Road Victoria BC V8Z 4W1

Cheques must be made out to South Vancouver Island Mycological Society (not SVIMS).

Monthly Meeting Info:

June. President's Picnic

Saturday June 11, 2011 at 4:00 pm.

Place: Home of Barbara and Bruce Pendergast, 350 Benjamin Road, Victoria
Phone 250-479-1326

Directions: Take West Burnside to Grange. Turn north (right hand turn if you are coming from Mackenzie). Turn left onto Laburnum which is the first road branching off Grange. Laburnum is dead end, but Benjamin Road goes off to the left part way down it. We are the corner house on Laburnum and Benjamin. It's a white house with a cedar fence.

Parking: There will be room along the side of our house and in our two driveways. The Laburnum driveway can hold 3 small cars. There is parking on the park side of the road along Laburnum from our house on. Please do not park on our neighbours' grass. Additional parking can be found by Marigold school on Grange or at the park, which is accessed by Iris (one road further along Grange).

Bring: lawn chairs, dishes, cutlery, glass or mug plus a dish of food to share and your own refreshments. BBQ and an oven will be available.

Prez Sez

By Jean Johnson

February 28, 2011 - Today I was asked to write something for this Prez Sez column. Just as I started to type, a flurry of white flakes began falling outside my window. More snow! How could that be when the garlic in the garden was already 4 inches

high? My baby apricot tree, for the first time



Photo: Kevin Trim

in four years, has put out loads of pink blossoms and two of them had already opened, ready for the pollinators that weren't to be seen in this kind of weather.

Here on the "wet" coast, we are used to rain but the timing of the snow this winter has been surprising. Total snowfall for February was 17 centimetres, which is much higher than the norm of 9 centimetres. For mycophiles, though, precipitation in any form is welcome.

There are high precipitation years that produce fungal fruitings so diverse and copious that they live on in legend. Last year was like that. The Victoria area experienced a higher than normal amount of rainfall (642 mm to be exact) and, incidentally, the SVIMS annual Mushroom Show had 254 species on display – a record for our Club. What was notable about 2010, though, was that the precipitation between April and September was 43% of the year's total, an unusual pattern in our geographic area. Some



Photo: Kevin Trim

speculate that this "wet summer" led to the wonderful diversity and quantity of mushrooms in the fall.

While fungi continue to amaze us in their complexity we are still working to understand what causes the mycelia mass to fruit in the wild when it does. Since a correct combination of soil temperature, daylight hours, ambient temperature, and moisture causes mushrooms to appear, it is thought that nature's subtle changing of these factors leads to "pinning" or the process by which the life cycle of an organism converts to the reproductive stage, i.e. mushrooms.

Commercial mushroom growers manage these conditions with reliable consistency in a few species in order to produce year-round food crops for consumers. In the wild, the predictability is a little more difficult.

May 15, 2011 – It has now been raining almost steadily since February. Annual precipitation to date is 43.8 cm (normal is 37.5 cm). This is beginning to be almost too much for us mere humans but just think how happy it is making the mycelia.

More experienced Club members used to say "Ah, it has rained for three days. In a couple of days, we'll go out to look for mushrooms." Now they're saying "You found oysters in April?" It is no coincidence that David Arora named his fungal pocket field guide "All That the Rain Promises and More".

LOCAL EVENTS AND FORAYS

Solutions from the Underground: How Mushrooms Can Help Save the World

June 11 and 12

Instructor: Paul Stamets

Cost: \$175 + HST (includes lunch)

Registration: www.foxglovefarmbc.ca

Contact: 1-250-931-5336 or

programs@foxglovefarmbc.ca

Fungi, particularly mushrooms, offer some powerful, practical solutions to many of the forces of environmental degradation facing the biosphere. The central premise is that habitats have immune systems, just like people, and our close evolutionary

relationship to fungi can be the basis for novel pairings that lead to greater sustainability and better health. Paul Stamets will discuss the evolution of mushrooms in ecosystems and how fungi can help heal the environment and its inhabitants. Paul's work with mycelium shows how these largely untapped organisms can replace chemical insecticides; break down toxic wastes, including petroleum-based products such as diesel, dioxins, and numerous other toxins into non-toxic forms. Farmers, gardeners, green architects and ecological designers all can use these emerging mycotechnologies.

FAR AWAY EVENTS AND FORAYS:

Cordyceps Tour with Daniel Winkler

June 10-23, 2011

Explore Central Tibet including Lhasa, Kongpo and Nagchu areas. Cordyceps season will be in full swing, valleys already ablaze in flowers. The itinerary and much more info is to be found at http://www.danielwinkler.com/cordyceps_expedition.htm.

2011 NAMA Dr Richard Homola Memorial Foray

August 4 - 7

Hosted by The Western PA Mushroom Club at Clarion University in Clarion, PA, just off Interstate 80. It is going to be an action packed foray with presentations, workshops, walks, and mycophagy. Included are the photos and biographies of the expert presenters who will be at the foray. You must be a 2011 NAMA member to attend the foray. Information at <http://namyco.org/events/index2011-0.html>

Radical Mycology Convergence

September 2 - 5

The Olympia Mycelial Network is happy to announce plans for the first (inter)national Radical Mycology Convergence. A fungi-human relations congress of sorts, this convergence will be a unique opportunity for humans to build stronger connections

with our fungal allies. We hope to create space for inspiring discussions on the future of radical mycological efforts and their implications. Proposed workshops include Do-It-Yourself mushroom cultivation, mushroom identification, and mycopermaculture. There will also be an opportunity to put theory to practice by working on a mycorestoration project in a damaged habitat. But really, it will be what we all make it. Plus, we plan on this event being toward the end of August, 2011, in Cascadia (aka the Pacific Northwest), one of the best times and places in the world to see mushrooms. The Olympia Mycelial Network would like to cordially invite anyone interested in participating in this event to contact us. We are looking for general helpers, organizers, workshop facilitators, presenters, workshop leaders, cooks, and anyone else with an inclination towards fungi. If this sounds like you, please contact us via email at radmycology@gmail.com to let us know. For more information, stay updated via our blog at

<http://radicalmycology.wordpress.com/radical-mycology-convergence-2011>

ARTICLES OF INTEREST

Royal Roads to Mushrooms

By Jill Stanley

(adapted from

<http://trufflesandturkeytails.blogspot.com>)

Did you know that mushrooms still grow in Victoria in the winter? Novices both, Bernie and I were surprised when we went out in the woods in January. Expecting the colder



Photo: Jill Stanley

temperatures and occasional frosts to have put an end to all mushrooms, we were thrilled to actually pick a few hedgehogs (*Hydnum repandum*).

However, in early February, when we joined fellow-SVIMsers for a foray in the woods on the grounds of the spectacular ocean-side Royal Roads University, we learned that hedgehogs weren't the only fungi that thrive in cooler temperatures. After a couple of hours meandering through the woods, the group had collected an amazing 35 specimens, which were all identified and then listed by Ian Gibson. There's nothing more humbling, though, than a lengthy roster of convoluted Latin names...and, in our case, names heard and repeated but soon forgotten! Out of the 35, we remembered a paltry 7. Guess we've got homework to do, eh?



The Spoils!

Photo: Jill Stanlev

Then we found a cool Artist Conk (*Ganoderma applanatum*). Why cool? Our leader, Shannon Berch, explained that the fungus had grown perpendicularly when the tree was standing (as is normal), but when the tree fell another conk started to grow out of it, also perpendicular to the light. The photo doesn't really show how big it was,

but it must have been 3 feet in width (or is that the fun-gi equivalent of a fish story??)

I don't remember the context, but while we were looking at the mushrooms along with mycologist Paul Kroeger he asked why people ask if this or that mushroom is edible. His point was that we don't ask the same question about flowers or other growing things, so why is that always the FIRST thing we want to find out about mushrooms? It reminded me of the first time we met Paul, and we had found some kind of *Agaricus* by the side of the logging road in the Shuswap and were dying to



Royal Roads forayers.

Photo: Jean Johnson

know only one thing: edibility. In fact, to my shame I even told him not to bother with all the fancy names, all we wanted to know is if we could eat the suckers! After he had replied affirmatively, I barely heard anymore of his information, I was so pumped. All I could think of was picking the motherlode of giant ones we had seen. As we turned to go, Paul asked casually if the logging road had ever been oiled. We froze. Wheeling around, we listened carefully as he warned us of the toxins that these delectable mushrooms would have absorbed.

Thus we learned our first lesson in the importance of the growing environment. If we were going to eat any edible mushroom, we needed to make sure it was growing in uncontaminated soil.

Now, 6 months later and (marginally) smarter, we want to learn to identify properly as well as eat. Thank heavens for forays. Thank heavens for SVIMS!

**Royal Roads University Foray –
Saturday, February 5, 2011**

Submitted by Jean Johnson

Twenty-six of us gathered to foray in the woods surrounding the Royal Roads University led by foray leader, **Shannon Berch**, and foray guest mycologist, **Paul Kroeger**. The youngest person was **Maura Brannigan (Brenda Callan's daughter)** who was just a few days short of seven years old. The oldest was ...well, that's not



In the woods.

Photo: Jean Johnson

important!

The weather cooperated and we enjoyed a warmish, non-rainy morning of fungi hunting in the forest. Over thirty species were found, including a perfect button specimen of *Agaricus hondensis*, a surprise find at this time of year. Another surprise find was a clump of *Pseudohydnum gelatinosum* growing fairly far up a tree trunk, something that many of us had never seen before (**see photo**). There were five different species of cup fungi, plus *Tremellodendropsis tuberosa*, a coral looking mushroom that is considered to be a bridge between coral and jelly fungi. It also has the longest name of all the species we found.

At noon we gathered in the Habitat Café for lunch and a look at our specimens. The cafeteria serves very good hot food and a variety of cold salads, sandwiches and sweet goodies which we enjoyed. The staff were very gracious about our leaving clods of dirt on the floor that had fallen off of our hiking boots. Paul entertained us with puns,

witty sayings and information that increased our knowledge of the fungi we had picked.

Thanks to **Paul Kroeger** for making this foray so delightful and to **Bryce Kendrick** who hosted him. Thanks to **Shannon Berch** for leading the foray and encouraging our exploration. Thanks to **Ian Gibson** for keeping the foray species list and distributing it.

Royal Roads February 5 Foray List

Submitted by Ian Gibson:

The tentative list for the foray to Royal Roads where good weather and company was enjoyed by all (as far as I know).

Thanks especially to Shannon Berch for leading us and Paul Kroeger for coming all the way from Vancouver especially to see us.

Send additions / corrections to Ian Gibson
ig@islandnet.com

Agaricus hondensis

Amanita pantherina

Auriscalpium vulgare

Clavulinopsis laeticolor

Coccomyces dentatus

Cortinarius sp.

Craterellus tubaeformis

Dacrymyces chrysospermus and/or

Tremella mesenterica

Fomitopsis cajanderi

Fomitopsis pinicola

Galerina sp.

Ganoderma applanatum

Geastrum cf. *forficatum*



Paul Kroeger keeping a pictorial record.

Photo: Jean Johnson

Heterotextus alpinus or *H. luteus*

Hydnum umbilicatum

Hygrocybe flavescens
Hypholoma capnoides
Inocybe spp.
Laetiporus conifericola
Lycoperdon sp.
Marasmiellus candidus
Mycena sp.
Nolanea sp.
Phlebia tremellosa
Polyporus sp.
Pseudohydnum gelatinosum
Stereum hirsutum
Stereum sp.
Tilachlidium brachiatum
Trametes versicolor
Tremella foliacea
Tremellodendropsis tuberosa
Trichaptum abietinum
Trichoglossum hirsutum
Xylaria hypoxylon

Book Review (Alberta Mycological Society newsletter, Winter 2010. Submitted by Ken Dies)

The Kingdom Fungi : The Biology of Mushrooms, Molds and Lichens

By Steven L. Stephenson, Timber Press, 2010 (272 pages)

This book provides the basic information necessary to understand and appreciate the complex and fascinating world of fungi. This text contains 12 chapters, with the first providing an in depth look at the biology, morphology, ecology and structure of mushrooms and related fungi. Chapters 2 to 8 cover the taxonomic assembly of mushrooms, lichens and slime molds. An added bonus in these chapters is the up to date classification of fungi reflecting DNA

Mushrooms Win Awards

A poster on fungi won first prize in the Informational Graphics category of the 2010 International Science and Engineering Visualization Challenge, sponsored by the journal Science and the US National Science Foundation.

See the poster at:
www.sciencemag.org/content/331/6019/850.full#F1

advancements of recent years.

Chapter 11 sheds light on the numerous applications of fungi in the manufacture of food, pharmaceuticals, beverages, dyes and much more. This text ends with a chapter on fossil fungi which dates back to the upper Precambrian era some four million years ago.

The Kingdom Fungi is an excellent book for amateur mycologists, naturalists and anyone who wishes to become more familiar and more appreciative of the fascinating world of fungi.

SVIMS FORAY – JOHN DEAN PARK – APRIL 16, 2011

From the end of the Thunderbird Trail

Aleurodiscus penicillatus
Ciboria rufofusca
Clavulinopsis fusiformis
Coprinus sp. – too old
Cortinarius vernalis
Cortinarius vernus
Fomitopsis pinicola
Galerina heterocystis
Galerina vittiformis var. *albescens* f. *tetraspora*
Gyromitra infula
Inocybe assimilata
Lenzites betulina



Photo: Adolf Ceska

Marasmius androsaceus
Melanoleuca stridula
Mycena atroalboides
Mycena galericulata
Nolanea cetrata f. *cetrata*
Nolanea cetrata f. *mediospora*
Nolanea holoconiota

Omphalina ericetorum
Phaeolus schweinitzii
Pseudoplectania melaena
Psilocybe inquilina
Psilocybe montana
Skeleticutis sp.
Stereum hirsutum
Trametes versicolor
Tremella encephala

New Books Published

Decomposition: An Anthology of Fungi Inspired Poetry edited by Kelly Chadwick & Renee Roehl.

Visit the website and order directly from the authors.

www.cuke.com/decomposition.htm

A Natural History of Foraging by Denis Benjamin, author of *Mushrooms: Poisons and Panaceas*.

This work reflects on the activity of foraging and the people involved. "It is for those who hunt for their stomach."

Visit the website and order from the distributor.

www.bookmasters.com/marktplc/03128.htm

When Trees Attack, Fungus Can Parry by Sara Reardon

All across British Columbia, from the Pacific Ocean past the Rocky Mountains, more than 40 million acres of coniferous forest stand brown and desiccated, ravaged by the mountain pine beetle. Over the past decade, the pest has spread virtually unchecked, rupturing ecosystems and maiming British Columbia's timber industry. A new genetic analysis reveals how the beetle's partner in crime—the fungus *Grosmannia clavigera*—helps the insect elude pine trees' natural defenses, providing it safe passage to the tree's core. Although the pine beetle gets most of the blame for destroying forests, many researchers think that *G. clavigera* is the more deadly of the duo. Commonly known as blue stain fungus for the color it leaves on the wood of trees, *G. clavigera* travels from tree to tree in the beetle's mouth. The fungus, beetle, and pine tree are three



A nice find from the March 19 Royal Roads foray.

Photo: Dorothea Haussler

competitors in a "never-ending arms race," says molecular biologist Joerg Bohlmann of the University of British Columbia, Vancouver, in Canada.

To learn more about how *G. clavigera* helps the beetle do its dirty work, Bohlmann and colleagues took the fungus back to the lab. When a beetle burrows through the bark of a pine tree, the tree secretes a toxic resin into the tunnel, trapping—and often killing—the beetle. (This pine resin is an ingredient in Pine-Sol antimicrobial cleaner, which kills most fungi.) But when the researchers treated cultures of *G. clavigera* with substances from the resin or with extracts from the bark of a tree in the process of repelling a beetle, the fungus continued growing happily. Under attack by these toxins, the fungus switched on a different set of genes. Some of these genes allow it to break the toxins down and even use them as food. The researchers suspect that this ability helps protect the beetle from being poisoned as it burrows through the tree.

"[The fungus] has taken a step further in evolution: It can not only tolerate the resin but can use it as a carbon source for its own benefit," says Bohlmann, whose team reports its findings online today in the *Proceedings of the National Academy of Sciences*. His interdisciplinary group of researchers, known as the Tria Project, plans to determine what other genomic

mechanisms may help the fungus kill trees and interact with the beetle.

So far, the pine beetle epidemic has mostly killed lodge pole pines, which make up the majority of British Columbia's forests. But if the fungus-beetle combo can adjust its counter defense system to overcome the weaponry of other pines, it could spread much farther. "The potential to spread into Alberta's jack pines would provide the beetle a conduit to the east coast [of Canada]," says forest entomologist Brian Aukema of the University of Minnesota, Twin Cities, who was not involved in the research. He adds that from there, it could easily move south into the United States. "The genome analysis gives us an insight into what's going on under the hood."

Do I need to worry about Radioactive Mushrooms as a result of the disaster in Japan?

By Dr. Michael W. Beug

With almost daily news coverage about the nuclear disaster in Japan, mushroom collectors may wonder if it is safe to pick and consume wild mushrooms in North America. The answer so far is unambiguously that collecting and consuming wild mushrooms in North America remains as safe as before. Just make certain that you are not collecting your mushrooms on or near an old uranium mine.

After the Chernobyl nuclear disaster, there were many areas in Europe where mushrooms concentrated dangerous levels of Cesium-137 (and other radio nucleotides) and were dangerous to consume for many years. Iodine-131 was also a problem. However, so far the levels of radio nucleotides reaching North America are very small and pose no threat. I checked the Oregon Public Health website on March 30, 2011 and the radioactivity peaked on March 22 at 0.00016mrem/day and has now dropped to 0.000001mrem/day. Assuming that the radiation had maintained the peak level of 0.00016 mrem/day, you would need to be exposed day and night for 100 years to

equal the radiation from one chest x-ray. Monitoring sites in California, Washington and Alaska have all paralleled the Oregon results.

I will continue to monitor the Oregon web site (public.health.oregon.gov) and let everyone know if the situation changes markedly for the worse. However, I do not anticipate a problem even if Japan continues to struggle for months or even years with their very real disaster. For the record, I did study nuclear physics in college and I am an anti-nuclear activist strongly opposed to nuclear power. But my concerns are focused on 1) the tens of billions of federal dollars going to prop up nuclear power (while funding for virtually all green energy is being cut) and 2) the immorality of creating a waste problem that remains a hazard for 250,000 years or more.

Pocket Microscope

Dr Daniel Fletcher and his students at the University of California at Berkeley have developed a microscope that fits in your pocket. They fitted a 40X microscope lens onto a slide holder and clipped it onto a 3 megapixel camera phone. The image is magnified optically by the microscope lens and digitally by the camera phone. These, in combination, increase the magnification to the point where a malaria parasite can be seen inside a red blood cell. This, in fact, was the application the researcher had in mind - to allow doctors in developing countries to take pictures of blood smears and email them to distant labs for diagnosis of malaria.

This device has been named the CellScope. It is being tested in the field and should be in production soon. Wouldn't this be wonderful to have this on a mushroom foray? To make a definitive identification, you would just have to pull your "microscope" out of your pocket.

Francis King Park Foray - April 7, 2011

Auriscalpium vulgare

Clitocybe radiceolata

Dacrymyces palmatus

Discina perlata ?
Fomitopsis pinicola
Hygrocybe miniata
Inocybe spp.
Melanoleuca stridula
Nolanea hirtipes
Trametes versicolor
Xeromphalina fulvipipes

Study Traces Morel Mushrooms Back to Days of the Dinosaur

By Leslie Cole, The Oregonian, March 15, 2011

Now that spring is in the air, our minds are turning to morels. And thanks to a new study published in *Fungal Genetics and Biology*, we can swoon over these honeycomb-capped fungi with a little more knowledge.

It turns out morels have been on the planet since the time of the dinosaurs, splitting off from other fungal species 129 million years ago at the beginning of the Cretaceous period. Since then, morels have evolved into 177 related species, and western North America – particularly the Pacific Northwest – has been an evolutionary hot spot.

“Oddly enough, most animal species aren’t particularly attracted to morels,” says Oregon State University researcher Nancy Weber, who participated in the study. “A few slugs and other things will eat them. But humans have probably been eating them for about as long as there have been humans.”

The newly published genetic analysis, one of the most detailed ever done, also suggests what conservation efforts will be needed to protect the morel for centuries to come. As to what accounts for their exceptional deliciousness when sautéed in butter, that’s a research question we’ll be happy to investigate.

Links of Interest

TED talk about Mushrooms as packaging
www.wimp.com/mushroomsplastic

www.mushroomexpert.com - Michael Kuo’s website. It has a search capability if you know the species name.

<http://botit.botany.wisc.edu/Toms> fungi - Tom Volk’s personal and informative website, including his mushroom of the month.

www.rogersmushrooms.com - Roger Phillips book on the web.

www.funghi4schools.org/ - The British Mycological Society’s resources for teachers including an entire downloadable children’s books about fungi.

Taylor Lockwood has totally revamped his old "FungiPhoto.com" website with hundreds of new images and features.
www.fungiphoto.com

Taylor Lockwood on Unforgettable and Inspirational talking about mushrooms
http://growingbolder.com/676299.html#content_tabs

SVIMS welcomes new members!

Tony Trofymow
Brian Luther
Chris Gebhard
P. Claudia Peterson
Douglas Spillane
Simon Kan
Renate Nahser-Ringer
Julie Anne LeRose

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.