Fungifama

The Newsletter of the South Vancouver Island Mycological Society
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Dues: **$15.00 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 Meeting:

Thursday, March 1

Bryce Kendrick: "Lichens - Life on the rocks'.

There are two kinds of fungus you can find any day of the year - polypores and lichens - and the lichens are by far the more common. Find out about these omnipresent dual organisms that do so well here on Vancouver Island. Bryce will take you on a fully illustrated tour, showing here lichens grow; what the different kinds look like, how their constituent organisms live together; how they reproduce; and various ways in which we make use of them (yes, we can even eat some of them, and caribou can live on them!). Bryce will use a laptop computer hooked up to a digital projector to show many of the pictures of lichens he has taken over the years, and especially in the past year or so with his new digital camera, all incorporated in chapter 7 of his CD-ROM version of 'The Fifth Kingdom'. If there is time he may also explore other chapters by request. He will offer the latest version of the CD-ROM to club members at a special price, and will donate 10% of the proceeds to the club.

Thursday, April 5

Richard Winder: "Mushroom Research at Liard Hot Springs Provincial Park" and **Adolf and Oluna Ceska,** Video of Liard Hot Springs Mushroom Foray.

Thursday, May 3

Rob Countess: Spring Mushroom Madness

Thursday, June 7

Mycophagy (Mushroom Cooking)

Forays/Field Activities

Carmanah or Walbran with Sid Haskell –

This would be an all day (12 hour) bus trip and foray for up to 24 people to a location of our choice. Cost perhaps $25.00 each. Contact Bryce Kendrick for more information.

Prez Sez

by John Dennis

What a winter we have had! I couldn't find any fungi on snowy Friday, February 16th. However, Brenda Callan and I were out at Rocky Point before and after the dump of

snow and even without crawling along some downed alder we found fungi. The deer mushroom (*Pluteus cervinus* or as it may be called now *Pluteus atricapillis*) was fruiting on some well rotted logs. We also found several large Mycenas, several small Mycenas, a lovely tiny white Hemimycena, beautiful Entolomas and a gorgeous group of ringed Psathyrella, *P. longistriata*. For those who like a healthy tea or need to start a fire, there was *Ganoderma* and *Phellinus ignarius*. Although this is not a plethora of wild edibles, when these guys are up, somewhere there will be "sweettooths" (*Dentinum repandum/D. umbilicatum*) and oysters (*Pleurotus ostreatus*). As a matter of fact on a local bike ride a week ago, I found several large, nice clusters of *Pleurotus ostreatus*. The point is that we are having a mild winter and if you look in the wet spots, something will be fruiting, maybe even dinner.

Thanks to the snow we may have enough moisture to encourage morels this spring. It is time to start planning trips to where you have found them and where you think they should be. The latter never works for me as I seem to be afflicted with "morel blindness". The only cure has been to take a well-trusted friend along who can spot them for me. Pick a friend who has good eyes but doesn't like mushrooms. It may be worth sacrificing a few specimens in a terrible tasting dish just to discourage the person from returning to your morel spot in the future.

According to the Herbarium records at PFC and UBC, morels can be found in Victoria as early as March 1st. If you have access to the Web, go to the Pacific Forestry Centre Herbarium site (http://www.pfc.cfs.nrcan.gc.ca/biodiversity/herbarium/).

By searching for *Morchella angusticeps, M. esculenta, M. deliciosa, M. crassipes* and *Morchella* sp. you can get some locations where morels have been found. I will make overhead projections of morel collections for the next SVIMS meeting. These would be from work Shannon and Brenda are doing on commercially harvested and neutraceutical forest fungi and would include the PFC Herbarium information as well as that from both UBC and UVIC collections. It should give some ideas on where morels have been found and when.

If this wasn't enough incentive to attend the March meeting, Bryce Kendrick will be talking about lichens. These fungal/algae symbiotic relationships help us appreciate and understand the natural world around us. Again at Rocky Point, Brenda and I found a fungus called *Athelia arachnoidea* which was growing on dying lichens on our sample trees. I could see where it got its name because it looked like a spider web covering the lichens. Quite pretty and an indication that it is warm enough this winter for fungi to be growing and getting strong for spring and fall. So, get out there and collect any fungi you find for the SVIMS meeting. It should provide excitement and impetus for others to start their walks early. You never know when you will trip over that large patch of morels.

Good Hunting!

Display Case at the Pacific Forestry Centre

The Pacific Forestry Centre has donated a display case to SVIMS for September/October. This is an opportunity to increase membership. John Dennis is the contact person for the display.

Lichen Haiku

Written by Keith A. McCall
http://www.duke.edu/~km13/Lichen.html

Lichen is grey and
hard to praise effusively,
but still lovable.

Mischevious plant
I long to classify but
can't. You symbiote.

What madman would spend
his life in your company
you naughty lichen.

What is a lichen?

Site constructed by Sylvia Duran Sharnoff and Stephen Sharnoff
http://www.lichen.com/biology.html

Lichens are composite, symbiotic organisms made up from members of as many as three kingdoms. The dominant partner is a fungus. Fungi are incapable of making their own food. They usually provide for themselves as parasites or decomposers.

"Lichens are fungi that have discovered agriculture"-- lichenologist Trevor Goward.

The lichen fungi (kingdom Fungi) cultivate partners that manufacture food by photosynthesis. Sometimes the partners are **algae** (kingdom Protista), other times **cyanobacteria** (kingdom Monera), formerly called blue-green algae. Some enterprising fungi exploit both at once.

SVIMS T-Shirt

Thanks to the efforts of Bryce Kendrick and Christine Roberts, we are very close to having our very own fabulous SVIMS T-shirt. As we go to press, the details are still being worked out but we should have final details of design and cost for you by the March Meeting.

Royal Roads Foray with Paul Kroeger – February 3, 2001

By Jean Johnson

I keep a diary of my mushroom forays. For the past three years, there are no entries for February, so when we met at the Helmcken Park and Ride to discuss the possibilities for this foray, there was a lot of enthusiasm for hiking in the warm sunshine but there wasn't a lot of hope that we would find many "fruitful" specimens. Were we ever surprised!

Adolf and Oluna Ceska led the foray to Royal Roads where some of us even found free parking. We started off by the Tennis Courts and were soon dispersed in the deep woods. An amazing number of people showed up – 39 to be exact - and I kept thinking that there were probably more people than fungi at this foray. Garnet, at 4 years of age, was the youngest and we won't mention who was the oldest (anyone over 40 wouldn't tell me their age, anyhow).

The wonderful thing about fungal forays is that you see so much more than just the macro fungi. Sharon and Oluna were soon thrashing around in the underbrush looking for miniscule specimens. Adolf found a *Mycena* with, at 5 inches, the longest stipe. Richard found a *Ganoderma tsugae* that excited him and Karen found the mushroom with the longest name -–a *Clavariadelphus*. Colin and Francis found the smallest "mushroom" – a delicate translucent white fungus that, under a hand lens, revealed only 5 gills. Jean found a *Tremella* as big as her fist and made the mistake of picking it up. Ugh – slimy! Shannon carried her prize of a wooden limb covered in lichen and slime mold with miniature black fruiting bodies. Again, the hand lens enabled us to enjoy these wonders.

Paul was great at bringing us fungi with scents of naphtha, marzipan (or anise if you want to be controversial) and bubble gum. Honest. Paul also showed righteous indignation at the ivy and daphne growing in the woods and would, on occasion, stop to pull them out by the roots, uttering oaths the whole time.

We also shared finds of antlers, a rabbit skull, veined leaves and a soggy green tennis ball. The most interesting non-fungal find, though, was a small grove of CMTs or Culturally Modified Trees. There was protective tape around the massage trunks of the cedars and we could see where long pieces of board had been cut out of the trees generations ago.

The woods were wet, the day was warm and sunny, and the fungi were numerous. After about 3 hours, Garnet led us out of the woods while singing "You are My Sunshine"

and Bob Trotta accompanied him with a clear, melodious whistle. A grand day and a great foray. Oluna, Christine, and Paul completed the official list of fungi at Shannon's house.

See you at the next foray. Mmmm – maybe Morchella!

Species list:

Aleurodiscus amorphus
Arrhenia retiruga
Auriscalpium vulgare
Calocera viscosa
Camarophyllus praetense
Chromosera cyanophylla
Clavaria vermicularis
Clavulinopsis laeticolor
Clitocybe deceptiva
Clitocybe obsoleta
Cortinarius duracinus
Crucibulum laeve
Dacromyces palmatus
Fomitopsis pinicola
Galerina laevis
Galerina nybergii
Ganoderma tsugae
Guepiniopsis alpinus
Helvella maculata
Hohenbuehelia petaloides
Hydnum umbilicatum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrophoropsis morganii
Hygrophorus foetens
Hygrophorus gliocyclus
Hypholoma capnoides
Inocybe friesii
Inocybe geophila
Inocybe grammata
Inocybe lilacina
Inocybe napipes
Inocybe pudica
Inocybe pudica
Lentaria pinicola
Lentinellus cochleatus ?
Marasmiellus candidus
Marasmius plicatulus
Melanoleuca graminicola
Melanoleuca stridula
Melanotus horizontalis
Mycena albicolor
Mycena alcalina
Mycena aurantiodisca
Mycena chlorinella
Mycena parabolica
Mycena rorida
Mycena rubromarginata
Mycena subsanguinolenta
Nolanea cuneata
Nolanea hirtipes
Oligoporus caesius
Omphalina sp.
Phaeolus schweinitzii
Pluteus cervinus
Polyporus badius
Pseudohydnum gelatinosa
Psilocybe inquilina
Ramaria myceliosa
Russula cf. stuntzii
Stereum hirsutum
Suillus caerulescens
Tremella encephala
Tremella mesenterica
Tremelodendropsis tuberosa
Trichaptum abietinum
Tricholomopsis morgani
Tyromyces (Oligoporus) fragilis
Tyromyces chioneus
Xeromphalina campanella
Xeromphalina fulvipes

Some Mushroom Growing Basics for Beginners

Excerpts from the web site of Randall R. Wayne, Ph.D
http://www.mycomasters.com/Basics.html

If you are completely new to mushroom growing, I recommend that you skim through a copy of ***Growing Gourmet and Medicinal Mushrooms*** by Paul Stamets. Paul's book will give you a good overview of growing mushrooms of all kinds. It has plenty of pictures, and there are descriptions of most of the mushroom species that can be reliably cultivated. It is also a valuable reference volume, and I use it regularly. Don't be put off by all the talk about contamination and sterile procedure, though that's where the **peroxide method**

comes in! As Paul's books explain, the process of growing mushrooms can be divided roughly into four steps:

1) Acquiring and maintaining a tissue culture (called mycelium) of the mushroom strain you want, usually on agar petri dishes. (A tissue culture is somewhat like a cutting of a plant. Starting with a tissue culture assures that you have a mushroom strain genetically identical to the one you want. Some growers start with spores, which are more like seeds. Spores may or may not give you a mushroom strain with the fruiting properties of the parent. Since spores cannot be grown in the presence of **hydrogen peroxide**, I always work with a tissue culture of mycelium. Tissue cultures of various species of mushroom can be purchased from commercial suppliers or started from fresh mushrooms).

2) Using a bit of the tissue culture to inoculate spawn, which is usually a small quantity of sterilized grain or sawdust.

3) Using the spawn to inoculate and grow mushroom mycelium through a substrate designed to support the formation of mushrooms.

4) Getting mushrooms to form and grow on the colonized substrate.

If you buy a mushroom kit, you are generally starting at step four. The commercial mushroom grower has already completed steps one through three for you, and provided you with the colonized substrate ready to form mushrooms.

You provide a proper environment, usually cool and moist. Getting mushrooms to form can be easy or hard, depending on the mushroom strain you are growing. Oyster-style mushrooms of the *Pleurotus* and *Hypsizygus* families are among the easiest to fruit. Lions Mane (*Hericium erinaceus*) is also quite easy. Maitake (*Grifola frondosa*) and Morels (*Morchella* species) are among the most difficult to get to form mushrooms. Shiitake (*Lentinula edodes*) falls somewhere in the middle.

It is also possible to start at step three, by purchasing spawn from a supplier and using that to inoculate a substrate that you have prepared yourself. There are a variety of possible substrates: straw, compost, logs, and sawdust are common ones, but people have also used things like newspaper, cardboard, sterilized grain, coffee grounds, etc. Each substrate requires a different procedure to render it relatively free of other organisms. Contamination by molds and bacteria is a significant problem at this stage, so using a substrate that is compatible with **hydrogen peroxide** addition can save you a lot of trouble. Wood pellet fuel, which disintegrates into sawdust when treated with boiling water, works very well in this regard.

Once you have tried steps three and four, you will have a better idea whether you want to get involved in keeping agar cultures and growing spawn (steps one and two), which require somewhat more commitment and attention to detail. Before the invention of the **peroxide technique**, it was generally only possible to keep agar cultures and grow spawn if you constructed a sterile workspace, such as a glove box at the very least. With **peroxide**, it becomes possible to perform these steps in an ordinary kitchen, and grow the cultures just about anywhere that an appropriate temperature and light level can be provided. You still need to learn some basic "sterile technique"--simple procedures for handling cultures to keep them pure. But you won't need a sterile facility or a spotless house.

(Editor's note: I have not tried the peroxide method of mushroom cultivation. However, if you want to know more, go to Dr. Wayne's web site at:
http://www.mycomasters.com/index.html#Top)

News from Southern Interior Mycological Society (SIMS)

With the help of cyberspace and email in the initial conception of The Southern Interior Mycological Society (SIMS) we have made it past our first year of existence with flying colours.

After the original meeting in November of 1999 at Kelownas' Okanagan University College of about seven wild mushroom devotees there has been a full twelve months of group meetings, forays and presentations.

The membership has expanded to approximately forty-five people with the help from dedicated supporters within SIMS such as Dr. Dan Durall technical advisor, Josette Banz treasurer and Brenda Cadieux secretary along with the generous assistance of The Okanagan University College.

SIMS commitment to education, safety, environment, community spirit and obligation, with the other benefits of fun, exercise and socializing is going to be the foundation for the development of a positive mission statement that will be composed by its member later this year. Enhancement of what has happened thus far is foremost in the minds of the executive so that SIMS will continue to thrive and be enjoyable to all involved.

SIMS meets on a regular basis the first Wednesday of the March, April, May, June, September, October and November at 6:00 pm sharp in room 247 at The Okanagan University College Science Building. All visitors are very welcome to attend, and if you wish to make an announcement in the SIMS NEWS newsletter please contact me by email at cstanek@cnx.net or by phone/fax 1-250-766-0591.

All the best
Rod Pooley, President

SVIMS MEMBERSHIP:

By Jean Johnson

WELCOME new member **KARIN JUST.**

NEWS from **JIM JONES**, now in Bamfield

"Local people already are calling me the mushroom man, and if last night was any indication, we can look forward to an enthusiastic group that is primarily interested in collecting and eating new species of mushrooms.

We went to a birthday party last night for a long-term elderly community member that was, I think, attended by the entire West side, and met many of our new neighbors. Several of them practically grilled me with stories and questions about local mushrooms for more than an hour and are keen to be involved with setting up a club. I will have to let it go until about mid August, though, so I can have some mushrooms to hunt and talk about.

I hope to do a one day show and tell workshop, followed by a foray and ending with a cook-out or BBQ of some kind. (I have never taken slides, so if you have any suggestions on where I can get any kind of slide show, individual slides or neat videos, that would be really helpful)

I went out this past Saturday to see what I could see along a local forest trail where I had found a large white hedgehog last month (we also found lots of these robust beauties in this vicinity in November when I staged a mushroom scavenger hunt for the School for Field Studies). Very few fungi were to be found; not even the expected patches of *Inocybe*. One thing that surprised me was the evidence of a really good crop of big winter chanterelles (*Cantharellus infundibuliformis*). The remains were everywhere and I did get a few that were still in good condition to put into a chowder we had that night. All were 3 to 4 inches in diameter with a flavor that asserted its mushroomy presence in the chowder. Mmmm.'