

Fungifama

The Newsletter of the South Vancouver Island Mycological Society
April 2010



SVIMS Executive for 2010

President	
Richard Winder	sidewinder@spamcop.net
Vice President	
Lee Smith	lskr@shaw.ca
Treasurer/Membership	
Karen Rowe	lskr@shaw.ca
Teresa Klemm	tklemm@islandnet.com
Secretary	
Jean Johnson	jeanjohnso@islandnet.com
Fungifama Editor	
Shannon Berch	shannonberch@telus.net
Forays	
Adolf & Oluna Ceska	aceska@victoria.tc.ca
Publicity	
Heather Leary	hleary@shaw.ca
Refreshments	
Diane Humphrey	catch.22@gmail.com
Librarian	
Helga Wolnicki	wolnicki@shaw.ca
SVIMS list serve master	
Adolf Ceska	aceska@victoria.tc.ca
Webmaster	
Ian Gibson	ig@islandnet.com
Director	
Kurtis Howes	kjh-three@hotmail.com
Director	
Mabel Jean Rawlins	seagulls@islandnet.com

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.

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.

Monthly Meetings:

SVIMS meets the first Thursday of the month, February – May and September – November. Please remember to bring your own coffee cup.

May 6 (Thursday)



Speaker: James Nowak, Seattle

Topic: Small scale mushroom cultivation in an urban environment

June 5 (Saturday)

The President's Picnic.

Time: 3:00 until the last person leaves

Hosted by: Lee Smith and Karen Rowe

Please bring: a dish (e.g. salad, dessert, etc) to share and your own refreshments.

A barbeque and ovens for re-heating will be available. There is some parking available in the driveway but most will be at the side of the road and cul-de-sac. Please pull off as far as you can and respect people's driveways.

Where - 2455 Tryon Road, North Saanich

1. Take the Pat Bay Highway to Lands End Road exit.
2. Turn right onto Kittiwake Place (if you turn left you'll be on Lands End Road)
3. Turn right onto Curteis Road
4. Turn left at the end of Curteis onto Tryon
5. Follow Tryon to the end - it becomes very narrow after passing a small totem pole on the left, and ends in a cul-de-sac.
6. Our driveway is on the left going into the cul-de-sac.

LOCAL EVENTS AND FORAYS

Wild Mushrooms - Delicious or Deadly?

Date: May 15th, 10:00 am to 4:00 pm

Location: Mayo Creek Gardens near Lake Cowichan, BC

Cost: per person \$45, includes hand-outs. Advance payment required to hold a spot. Registration limited to 12 participants.

To register email wild@jessicawolf.ca or phone 250-722-2292

The VMS Last Resort Annual Foray

<http://www.vanmyco.com/index.htm>

Location : Manning Park

Dates: Sept 17, 18, 19 – 2010

FAR AWAY EVENTS AND FORAYS

The Great Alberta Mushroom Foray & Leni Schalkwijk Memorial Foray.

Dates: Sept 3 – 6, 2010

Location: near Canmore, AB

<http://www.wildmushrooms.ws/web/guest/forays>

Toronto Mycological Society Vello Soots Memorial Cain Foray

<http://www.myctor.org/>

Dates: September 17-19th, 2010

Location: Huntsville, Ontario

Foray Newfoundland and Labrador 2010

<http://www.nlmushrooms.ca/>

Location: The Great Northern Peninsula

Dates: September 10-12, 2010

NAMA Annual Foray

Location: Snow Mountain Ranch, Winter Park, Colorado

Dates: August 12-15, 2010

Fee: \$150

Note: NAMA membership is required to attend the annual foray.

Hosted by: Colorado Mycological Society

For more information: Ed Lubow by email:

NAMA2010@gmail.com or

<http://cmsweb.org/nama2010registration>

Northeast Mycological Foray 2010

Location: Kerhonkson, NY

Dates: September 23-26, 2010

Note: The next Sam Ristich Foray will be held at the Soyuzivka Ukrainian Cultural Center in Kerhonkson, NY. Click here to see an amusing YouTube promo video:

<http://www.youtube.com/watch?v=gywcNs0quxw&feature=autofb>

SVIMS FORAY REPORTS

Sooke River Potholes Foray, April 3



Viewing the collections. Photo by Ken Wong

Species list prepared by Oluna and Adolf Ceska:

Agrocybe praecox

Amanita aprica

Boletus zelleri

Chromosera cyanophylla

Clitocybe radicellata

Cortinarius idahoensis

Cudonia sp.

Dacrymyces palmatus

Galerina autumnalis

Galerina heterocystis

Galerina lubrica

Galerina vittiformis var. *albescens* f.

tetraspora

Geoglossum umbratile

Gyromitra esculenta

Heterotextus luteus

Hypholoma fasciculare
Hysterangium separabile
Inocybe abjecta
Inocybe assimilata
Inocybe castanea
Inocybe cinnamomea
Inocybe geophylla
Laccaria ohiense (2-spored basidia)
Laccaria tetraspora (4-spored basidia)
Marasmiellus candidus
Melanoleuca stridula
Melanotus horizontalis
Mycena sanguinolenta
Mycena speirea
Nidula niveotomentosa
Nolanea cetrata f. *cetrata*
Nolanea hirtipes
Nolanea holoconiota
Omphalina ericetorum
Phellinus ferreus
Physiosporinus rivulosus
Pleurotus ostreatus
Polyporus badius
Psathyrella subcinnamomea
Rhizopogon ellenae
Sarcosphaera coronaria
Stropharia ambigua
Tarzetta cupularis
Trametes versicolor
Trichaptum abietinum
Tubaria hiemalis



Hunting the wild *Hysterangium*. Photo by Sinclair Phillip

Metchosin Park foray, April 11

Species list prepared by Oluna and Adolf Ceska:

Agrocybe praecox
Alpova diplophloeus
Amanita pantherina
Athelia neuhoffii
Callistosporium luteo-olivaceum
 (Wendy found this on a stamp)
Chlorociboria aeruginascens
Chromosera cyanophylla
Clavulina cinerea
Clitocybe deceptiva
Clitocybe radicellata
Coccomyces dentatus
Conocybe rickenii
Conocybe tenera
Cortinarius sp. (*C. orelanus*?)
 in forest ID'd as *Inocybe assimilata*
Cryptoporus volvatus
Cudonia circinans
Dacrymyces palmatus
Fomitopsis pinicola
Galerina heterocystis
Galerina pumila var. *pumila*
Geoglossum umbratile
Gloeophyllum sepiarium
Hebeloma sordescens ?
Heterotextus luteus
Hygrocybe psittacina
Hypocrea pulvinata
Inocybe grammata
Inocybe lanuginosa var. *ovaticystis*
Inocybe pusio
Laccaria laccata
Meruliopsis corium
Mycena metata
Mycena pura
Naucoria escharoides
 also known as *Alnicola melinoides*
Nolanea hirtipes
Omphalina ericetorum
Peniophora incarnata (on wild cherry)
Peziza vesiculosa (on horse dung)
Phaeolus schweinitzii
Pleurotus ostreatus
Pluteus cervinus

Pluteus pouzarianus
Polyporus badius
Radiigera atrogleba
Sarcosoma mexicana
Trametes versicolor
Trichaptum abietinum (on Douglas-fir)
Trichaptum bifforme (on alder)
Xeromphalina campanella
Xeromphalina fulvipipes
1 more mushroom *Oluna* cannot ID
(*Rhodocollybia*?)

MYCOLOGICAL ARTICLES AND NEWS

Mushroom "Madness" on Observatory Hill

By Paul Feldman, DAO/HIA/NRC

It is my great pleasure to announce that the Ceskas have finished their 2009/10 survey of macrofungi on Observatory Hill. Their report should be available in about a week's time. Highlights are many. The Ceskas recorded 520 species this year, probably comparable to what they might have found in 2004/5 had they not missed the early part of the Fall. Of the 520 species found, 140 were new on the Hill. The cumulative number of species found since the survey began is now 901. (The Ceskas are getting close to recording 1000 mushroom species at the Centre of the Universe!)

A number of rare and interesting mushrooms were found on the Hill this past year. Oluna Ceska's top five choices are:

Squamanita paraxoda (powdercap strangler) is an extremely rare fungus and this is the first record of this species in Canada. It is a parasitic fungus that grows from another mushroom, the commonly widespread *Cystoderma amianthinum*.

Cytidia stereoides: This species is known only from the type locality near Mt. Shasta in northern California. There it grew on several hosts, mainly belonging to the rose and cascara families. It is therefore

possible that this fungus, specific to *Arbutus menziesii*, will prove to be a species new to science. A DNA comparison with the DNA of the type specimen is necessary to answer this question.

Mycena corynephora: In spite of the large number of *Mycena* species already documented from Observatory Hill (70 species), four new species were found in the 2009/2010 season. *Mycena corynephora* is extremely small, only about 1 mm high and with a cap about 1 mm in diameter. It is known only from Europe and this would be the first occurrence in North America. It grew on maple bark in January 2010 in the forest just above the main gate.

Geoglossum glutinosum: The common name of this fungus is black earth tongue. There are several different species of black earth tongues. *Geoglossum glutinosum* differs from all the others by having a distinctly viscid surface when moist. To our knowledge, until now, there has been no collection of this species from British Columbia. It grew under leaf litter of a broadleaved maple near the ephemeral creek along the eastern boundary of the Hill in May 2009.

Leptonia badissima: According to Largent (1994), who wrote a monograph dealing with the family Entolomataceae to which this fungus belongs, *Leptonia badissima* is only found in Washington State. It was growing at the end of May 2009 near the small wetland along the eastern boundary of the Hill.

Finally, I should mention that the Ceskas are involved in several refereed papers, one in press and the second about to be sent for publication. The Observatory Hill area has turned out to be ideal for following the phenology of *Tubaria punicea* and *Claudopus byssisedus*. In particular, the material of *Tubaria punicea* from Observatory Hill was crucial to the solution of the taxonomic problems of this genus (P.B. Matheny et al., 2007).

**HELENE (LENI) M. E. SCHALKWIJK-
BARENSEN, 1921-2010
MYCOLOGIST, ARTIST, TEACHER.**

From: J. Ginns ginnsj@shaw.ca with thanks to Else Vellinga for her suggestions

Source: Botanical Electronic News No. 425

An extraordinary lady, Leni had broad interests and was talented in a number of fields. And she was a prolific letter writer; using neither computer nor typewriter. All of the nearly 3 cms thick stack of her letters to me were hand-written. Leni was born August 13, 1921 to a family of horticulturists that specialized in mainly growing orchids but also roses and other flowers in Aalsmeer, The Netherlands. Her father was a well known orchid grower and Leni enjoyed some orchids from her father's greenhouse all the time she lived in Edmonton. She attended Wageningen University and was awarded a Masters degree in horticulture. 1949 was an eventful year! In May her marriage to Johan August Schalkwijk, a forestry student, was followed by their immigration to Canada.

They resided in Edmonton, Alberta but spent many enjoyable months each year at the cottage on Sandy Lake. By 1968 Leni was avidly collecting mushrooms and, since she had always liked to sketch and paint, was rendering them in watercolors. Seven of her paintings can be seen on the Edmonton Art Club's gallery. She had exhibitions at the Edmonton Art Gallery, Museum of Alberta (Edmonton), the Glenbow Museum (Calgary), Canada's Museum of Civilization (Ottawa) and several other locals.

Leni soon realized that she was finding quite a number of mushrooms that she could not find names for. So in 1973 she wrote to mycologist David W. Malloch at the Canadian National Mycological Herbarium in Ottawa. This began a 30 association with the mycologists at that

centre, esp. D.W. Malloch, S.A. Redhead, J. Ginns and K.N. Egger. However, her contact with mycologists was not limited to the Ottawa group, e.g., from 1976 to 1981 she was writing and sending specimens to A.H. Smith at the University of Michigan, Ann Arbor. And in 1974 Leni joined the Netherlands Mycological Society and in 1988 the North American Mycological Association.

She had a number of projects aimed at attracting more people to mushrooms. Her 1975 booklet *Mushrooms of the Edmonton Area* treated 16 common mushrooms, each depicted in a black & white drawing by Leni, provided an introduction for persons who were beginning to collect or eat wild mushrooms. During the 1970s and 1980s Leni taught courses in the field identification of mushrooms. In 1987 she and Randy Currah founded the Edmonton Mycological Society (since 2007 known as The Alberta Mycological Society).

Leni Schalkwyk's *Checklist of Alberta Fungi*, published in 1989, was an annotated list of her collections. Many were of species not previously recorded in Alberta. Nearly all of the included species were represented by a voucher deposited in a reputable herbarium, thus making it possible for future students to confirm the names she and colleagues used.

The author of a number of mycological works, Leni's most extensive was the 1991 field guide to 550 mushrooms of western Canada. The book was illustrated by 107 full-page, color plates of her watercolors. The plates are 45 x 30 cm with 2 to 11 species per plate with many species represented by five fruiting bodies. To prepare the plates Leni used her earlier paintings, each usually depicting one species, and repainted them to form the plates. The plates show several widespread mushrooms painted from Arizona, Holland, Ontario, South Africa, and Spain collections; these distant locals

were Leni's way of letting readers follow her travels.

Following the death of "my best friend," Johan in 2004, Leni moved to Vancouver, British Columbia, where her daughter Tilly lived. Leni died January 31, 2010; her ashes to be spread, next to Johan's, in the Alberta forest they loved so well. She is survived by daughters Johanna, Tilly, and Grace, son Leo, and their families.

idMushroom Browser

This is the first professional pictorial guide to North American mushrooms for the Apple iPhone and iPod Touch. It combines photography with state-of-the-art programming concepts to provide an easy to use mushroom information resource. No Internet connection is necessary. It provides 236 of the most common North American mushrooms.

website: [idMushroom.com](http://idmushroom.com)

eMail: info@idmushroom.com

Fungi Can Change Quickly, Pass Along Infectious Ability

Source: Oregon State University, re-published in Science Centric, March 18, 2010.

Fungi have significant potential for 'horizontal' gene transfer, a new study has shown, similar to the mechanisms that allow bacteria to evolve so quickly, become resistant to antibiotics and cause other serious problems.

This discovery, to be published Thursday in the journal Nature, suggests that fungi have the capacity to rapidly change the make-up of their genomes and become infectious to plants and possibly animals, including humans.

They are not nearly as confined to the more gradual processes of conventional evolution as had been believed, scientists say. And this raises issues not only for crop agriculture but also human health, because fungi are much

closer on the 'evolutionary tree' to humans than bacteria, and consequently fungal diseases are much more difficult to treat.

The genetic mechanisms fungi use to do this are different than those often used by bacteria, but the end result can be fairly similar. The evolution of virulence in fungal strains that was once believed to be slow has now been shown to occur quickly, and may force a renewed perspective on how fungi can behave, change and transfer infectious abilities.

'Prior to this we've believed that fungi were generally confined to vertical gene transfer or conventional inheritance, a slower type of genetic change based on the interplay of DNA mutation, recombination and the effects of selection,' said Michael Freitag, an assistant professor of biochemistry and biophysics at Oregon State University.

'But in this study we found fungi able to transfer an infectious capability to a different strain in a single generation,' he said. 'We've probably underestimated this phenomenon, and it indicates that fungal strains may become pathogenic faster than we used to think possible.'

Bacteria use 'horizontal' genetic transfer through chromosomes and DNA plasmids to change quickly, which is one reason that antibiotic resistance can often develop. This capability was believed to be possible, but rare, in fungi. In the new study, based on a genome-wide analysis of three *Fusarium* species, it was shown experimentally that complete chromosomes were being transferred between different fungal strains, along with the ability to cause infection. Various *Fusarium* fungi can infect both plants and humans.

In humans, fungal infections are less common than those caused by bacteria, but can be stubborn and difficult to treat - in part, because fungi are far more closely related to animals, including humans, than are bacteria. That limits the types of medical treatments that can be used

against them. Fungal infections are also a serious problem in people with compromised immune systems, including AIDS patients, and can be fatal.

According to Freitag, this new understanding of fungal genetics and evolution is great news. For one thing, it may help researchers to better understand the types of fungal strains that are most apt to develop resistance to fungicides, and help crop scientists develop approaches to minimize that problem.

On a more basic level, this study provides evidence that the 'tree of life,' with one trunk and many branches, is outdated. It should be replaced by a 'network of life' in which many horizontal connections occur between different species.



Metchosin foray group. Photo by Heather Leary



The Potholes foray group. Photo by Kevin Trim

Fungus Originated in Vancouver Island Spread Past the Border into Oregon

by Prakash Sharma 04/27/2010

<http://topnews.us/content/218248-fungus-originated-vancouver-island-spread-past-border-oregon>

A deadly fungus is making its way down the Pacific Coast from Canada, which is a serious concern for the scientists. Despite the fact that this biggest outbreak has taken place on Vancouver Island in British Columbia, the fungus has managed to spread past the border into Oregon where it's become a "a major source of illness in the region".

So far, five of 21 people contracting the fungus in the U. S. have died. Edmond Byrnes of Duke University in North Carolina, who led the study said, "This novel fungus is worrisome because it appears to be a threat to otherwise healthy people".

This fungus was found earlier in the tropics. The fungus, also known as *Cryptococcus gattii* had been associated with Eucalyptus trees. Since its discovery in Vancouver Island in 1999, it has been linked to disease in humans and animals, both in Canada and the United States. It is spread through spores carried by wind.

The study said, "The continued expansion of *C. gattii* in the United States is ongoing, and the diversity of hosts increasing". The study also cautioned that *C. gattii* may pose a serious threat to agricultural as well as domestic animals and there is a requirement of cooperation among health officials.

Fungus threatens state bats

By David Rainer, April 26, 2010

<http://www.clantonadvertiser.com/news/2010/apr/26/fungus-threatens-state-bats/>

Unfortunately, there is a real threat to the bats species in North America in the form of White-nose Syndrome, caused by *Geomyces destructans*, a fungus that

affects bats that hibernate in caves. The latest update on the spread of the fungus is that it has now spread northward into Canada and as far south as Tennessee.

The ones affected by the White-nose Syndrome are the colonial cave-dwelling bats. According to the best evidence bat biologists have developed, this is a new fungus for which bats in North America have no resistance. Evidence suggests bats in Europe have developed a resistance

“The fungus grows while they’re hibernating,” Hudson said. “The pathology is not well known. Apparently, it causes the bats to wake up early and use up their fat resources. They’re flying around the mouths of caves with snow on the ground up north, and there’s nothing for them to eat. Plus, it’s likely the fungus is working on them directly, as well.”

“We encourage cavers to decontaminate to be safe,” he said. “In my biological opinion, it’s being spread mainly bat to bat. But because this is so devastating, we want to do everything possible to make sure humans do not contribute to the spread of the syndrome. And we can’t just go in and decontaminate the whole cave because it may destroy beneficial fungus.”

Tane Mahuta threatened by fungus

Tue, 27 Apr 2010 11:26a.m.

<http://www.3news.co.nz/Tane-Mahuta-threatened-by-fungus/tabid/1160/articleID/152977/Default.aspx>

New Zealand's largest kauri tree is under threat from a fungus that's been found in the Waipoua forest. The kauri killing fungus PTA (*Phytophthora taxon Agathis*) is infecting a tree just 500 metres from 2-thousand year-old Tane Mahuta. It's the first time the bug has been found in the forest, now there are calls for new measures to be brought in to protect the 51 metre tall tree.



Tane Mahuta, the largest Kauri tree in the world deserves its name, which translates a "Lord of Forest". This mighty tree in Northlands Waipoua Forest is approximately 1250 years old.

Fungal Fumes Clear out Crop Pests

ScienceDaily (Feb. 24, 2010)

<http://www.sciencedaily.com/releases/2010/02/100219102212.htm>

A cocktail of compounds emitted by the beneficial fungus *Muscodor albus* may offer a biologically based way to fumigate certain crops and rid them of destructive pests. That's the indication from Agricultural Research Service (ARS) studies in which scientists pitted *Muscodor* against potato tuber moths, apple codling moths and *Tilletia* fungi that cause bunt diseases in wheat.



Boletus coniferarum, Photo by Shannon Berch