

Fungifama

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South Vancouver Island

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SVIMS

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Meetings: First Thursday of each month, 7:00 p.m., at the Pacific Forestry Centre, 506 West Burnside Rd., Victoria, B.C.

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WINDER'S WOODLOT

It's February and the golden waxy caps (*Hygrocybe flavescens*) are back, bringing my woodlot full circle for the year. I have a feeling that I will be finding many of the same things around my house as last year, so we'll now begin to shift gears in this column and think about other mycological matters, like reaching out to our fellow mycologists in the information Age. The computer networks are just bursting with information these days - much of the content in this issue is connected to information or discussions, originating from these networks, and you can probably expect to see more of the same.

On another note, with Paul Kroeger's excellent talk on fungal toxins still fresh in mind from the last SVIMS meeting, and a report in this issue from a SVIMS member who mistakenly consumed some *Agaricus praeclaresquamosus*, I thought it might be high time to discuss the dangerous side of mycology in this column.

My first brush with myco-panic happened while I was in graduate school at North Carolina State University. At the time, I had just taken advanced mycology from Dr. Larry Grand. One of his course requirements was consumption of a wild mushroom after one of the field trips. It was amazing to see students who would ordinarily pull every trick in the book to get a good grade suddenly refuse to eat a wild mushroom, even if it meant a B rather than an A. Considering myself a displaced Pennsylvania backwoodsman, I was all too happy to part company with my peers upon finding some shaggy manes (*Coprinus comatus*). I passed the course, and later found myself

visiting my folks in the Keystone State, passing judgement on some Parasol mushrooms (*Lepiota procera*) that my brother had collected for the family dinner. After I verified that they were indeed what my brother said they were, my family ate them heartily, secure in the knowledge that big bucks were being paid for me to know what I was doing. An hour after dinner, my brother became ill, breaking out in a cold sweat and describing a feeling "like being anesthetized with sodium pentathol" before nodding off into a deep sleep. Had we mistaken Amanitas for Lepiotas? You can imagine the concern I felt for my family, setting aside my own possible peril, which wasn't slight - I had consumed more than anyone else. "Some mycologist!" I told myself. It was a long night. As it turned out, no one else got sick, and I started to become suspicious. Was it one of those rare allergic reactions occasionally encountered in Lepiotas? Possibly, but the symptoms were all wrong - they were more like those described for *Armanita muscaria*, the Fly Agaric. Aside from having a lot of really weird dreams, my brother felt fine by morning, so I interrogated him. Had he consumed any *A. muscaria* on the sly? No, but he had handled quite a few of them at length in a separate locale, showing his girlfriend what not to pick and explaining the finer points of *Armanita* anatomy. Aha! Had he washed his hands before dinner? (According to one source I've interviewed, *A. muscaria* toxins can be so concentrated at the cap surfaces that people harvesting the mushroom for scientific studies often have to wear gloves, lest they fall ill as their skin absorbs the toxins). After careful recollection, his sheepish answer was no - he was so excited about finding the Parasols, he had forgotten to wash his hands (and we were eating sandwiches that night). I didn't know if I should breath a sigh of relief, or wring his silly neck!

Many cases of mushroom poisoning probably go unreported on Vancouver Island. I've heard of at least two instances of fairly serious mushroom poisoning happening within the small circle of friends I've made here, both instances happening years ago during the 'invulnerability' of youth. In the first case, three people consumed what they thought was *A. muscaria* in order to achieve euphoria. Two of the people fell very ill with nausea, etc., and one lapsed into what sounds very much like a coma. Assuming they were doomed, they did not seek medical help. They all survived, although the person who lapsed into the coma is reportedly "not the same" after the experience. As the mushroom was described to me (like *A. muscaria*, but with a light grey cap), it seems probable that they consumed *A. pantherina*. In the second instance, several inebriated folks became frustrated while searching for magic mushrooms (*Psilocybe* spp.), and just randomly gathered any L.B.M. (little brown mushroom) they happened onto. After consuming this mess, they experienced temporary paralysis of all of their skeletal muscles - definitely an unpleasant experience.

Part of the thrill of eating wild mushrooms is probably the element of risk involved when eating something "wild". Just remember: wild can also mean savage. Having said that, eating wild mushrooms doesn't have to be an anxiety-laden experiment, if you temper your boldness with a little dispassionate caution and a healthy mistrust of folklore. For more on toxins, see the Society Highlights summary of Paul Kroeger's talk in this issue.

On to lighter topics. So far, our forays have concentrated on two goals - finding edible mushrooms, or learning to identify and list all the species that we find. At some point this fall, I would like to lead a different sort of foray. The objective of this trip would be to estimate the economic value of mushrooms growing in some patch of mature forest. In simple terms, we would be seeing how many edible and medicinal mushrooms we can shake a stick at. Of course, one foray can't determine a whole season's worth of fungi - you can probably only get a rough idea of what's out there. But I thought that it might be interesting to put a different spin on one of our forays, with a view towards highlighting some of the non-timber uses for our forests. If anyone is interested, let me know so we can carry the idea further. -RSW

SOCIETY HIGHLIGHTS

The year's first SVIMS meeting was held on February 2nd. The turn-out was good, and we heard about the results of a recent executive meeting. A full list of member's names, addresses, and phone numbers will soon be distributed, in order to better coordinate forays. If the address on your mail labels is incorrect, or if you want your phone number to remain unlisted, please advise one of the officers as soon as possible. This year's dues are set to be \$15.00 per family - the \$5.00 discount for senior citizens and students will be discontinued. In order to simplify record keeping, dues paid before July 1, 1995 are full price, those paid from July 1 until the end of the year will be half price (the three free newsletters to interested parties still applies). This sentence is a subliminal message reminding you to pay your dues. We will be looking into membership in NAMA (the N. American Mycological Association). Members mulled over the point that NAMA membership would give our group wider exposure and interaction with other groups while leading to our registration as an official society, with all of the obligations that come with that. SVIMS now has access to a collection of mycology books and journals once owned by a professor at UVIC. We are now looking for a place to house the collection, which includes back issues of the journal Mycologia. Any suggestions for a place with easy access to store the new SVIMS library would be appreciated. The formation of several committees was discussed, for oversight of library, programs, field trips, and the Annual Display. Two residents of Sooke volunteered to help with the newsletter mailing. A joint foray with VMS (Vancouver Mycological Society) was discussed, possibly to be held in the Lake Cowichan area. Ken Kissinger is organizing a garage sale fund-raiser for us - anyone who has a suitable garage in the Victoria area, or is interested in helping out, should give Ken a call at 479-3862... and be thinking about what you might like to donate!

Paul Kroeger of the VMS reprised his appearance as our debut guest speaker for the year. This time, he gave

us a very interesting presentation, not of the joys of mushroom forays, but of the darker dreads of mushroom toxins. There can be only one take-home lesson from this talk - be sure you know what you are picking! Paul covered the various deadly Amanita toxins first, noting the need for collecting voucher specimens if any are spotted on Vancouver Island. From that point, an interesting array of hazardous mushrooms and their toxins were discussed, including Galerina autumnalis, a poisonous mushroom with the same toxins as deadly Amanitas and which can be confused with so-called 'magic mushrooms' (Psilocybe spp.); the Cortinariaceae, a family of mushrooms with kidney toxins; and Gyromitra spp., with their rocket-fuel toxin, monomethylhydrazine. Paul noted that many mushrooms have hydrazines, and he recommended that because of this, all mushrooms should be cooked before consumption. The talk ended with a detailed history of Psilocybe use in North America, and a discussion of the active compounds involved.

Mushrooms brought to the meeting were: Flammulina velutipes (Wild enoki), Hvgrophorus saxatilis (Waxy cap), Hvgrophorus coccinea (Righteous red waxy cap), and Dentinum umbilicatum (Hedgehog). -RSW

AMADOU ART

forest pathology folklore by Brenda Callan

At Pacific Forestry Centre's United Way Silent Auction last year, I acquired a piece of brown suede-like material that was cut in an oval pattern and ornamented with leaves and flowers tooled from similar, paler material. This work of art was donated to the auction by a colleague, whose wife had obtained it in eastern Europe. It was supposedly crafted from some sort of fungus tissue.

Well, thanks to the miracle of the electronic information superhighway, I now know a lot more about this strange object. Another of my colleagues was reading the latest news in a forest pathology computer network, and was kind enough to point out to me an enquiry by George Hudler, a professor at Cornell University. Hudler described a "placemat" almost identical to mine, which he had bought from Gypsies in Eastern Europe. The Gypsies insisted that it was made from a fungus. He was skeptical, and asked if "anybody out there" had more information.

Bob Blanchette, University of Minnesota, responded by commenting that he'd never seen this sort of artwork, but that several fly-fishing catalogues, including Orvis, advertise a suede-like felt called "amadou," which is made from fungus. It is much prized for its superior fly-drying quality, as it is supposed to wick away moisture without getting soggy. He did not know which fungus "amadou" was made from, or how it was made. I had a guess, however, which later proved to be wrong. In our herbarium at the Pacific Forestry Centre, we have several large, strong, suede-like mycelial felts measuring over a meter in length. They were naturally formed in shrinkage cracks of conifer wood with advanced brown cubical decay caused by the quinine-conk fungus Fomitopsis officinalis. I figured the craftspeople had made the placemats from felts like these, tooling them like leather, then dyeing them (the felts I've seen are all white).

I mentioned this in my own response to Hudler's message, but also checked my favorite reference book, Hawksworth et al.'s Dictionary of the Fungi. Yes, there really is a book called this, and every decent mycologist (and most indecent ones, too, so they tell me) owns a personal copy. What lucid "Amadou" is in the Dictionary, defined as the context (inner tissue) of two species of hardwood decay fungi, *Fomes fomentarius* and *Phellinus igniarius*. Pieces of the context are soaked in saltpeter and used for tinder. Interestingly, the common names for these fungi are "tinder fungus" and "false tinder fungus", respectively.

Many of our native tribes used these conks to carry fire from one camp to another, as, without the addition of saltpeter, they produce long-lived, glowing embers with little smoke. Saltpeter would presumably make them flare like matches. Immediately, I had a vivid mental image of the stolid fly fisherman, smoldering pipe clenched in his teeth, suddenly erupting into flames as an ember from his pipe ignites his \$18.95 amadou patch! I therefore assumed that the saltpeter was omitted from the fly-driers, or that the patches were prominently marked with no-smoking warnings. Of course, the amadou would have an alternative function if the fish weren't biting.

We were all still missing clues to the amadou puzzle, however. The contexts of these conks are hardly suede-like. They have a consistency halfway between wood and vulcanized rubber. I've bounced an ax off them many times, hardly making a dent. Neither of the amadou fungi are known to produce mycelial felts in wood. How, then, is amadou made?

Kim yon Weissenberg, a forest pathology professor from Helsinki, Finland, finally came to the rescue. Kim explained, "Especially in Eastern Europe, the tradition to make suede-like material out of this sporophore has persisted in our days. Long ago this was a real trade and... mats, hats, vests, inner soles, gloves etc. were made. The saltpeter used for tinder was omitted and the "meat" of the conk was beaten with a club into this suede-like material."

So, in days gone by, a mycologist could be clothed from head to toe in beautiful, natural, resilient fungal fabric. How elegant, compared to the cheesy polyester mushroom shirts all too often seen at modern fungus forays!

A final comment was added by Dale Bergdahl, forest pathologist at the University of Vermont. He referred us to an article in Science (December, 1993), where it is reported that *Fomes fomentarius*, plus several other conks from unidentified wood decay fungi, were found in Ice Man's leather bag. [Editor's note: Ice Man is the name given to the recently discovered intact corpse of a Bronze-Age man, preserved by the freezing temperatures of an Alpine glacier.]

Bergdahl speculated, "Was Ice Man really a forest pathologist, and if so, who was his mentor?" Or... maybe he was simply out making his disease specimen collection for his forest pathology class and was caught doing it a "little late". I've got my own theory... I figure that Ice Man could be an ancestor of the Canadian Forest Service's Forest Insect and Disease Survey rangers! P.S.: If anybody has a sledgehammer and wants to try their hand at making amadou, I've got some conks...

[A further note: In *Mushrooms demystified*. D. Arora states that another common name for *F. fomentarius* is simply "the amadou". The Random House College Dictionary says that amadou is also used in surgery. It goes on to say that there is a romantic connection - the word "amadou" is French, derived from the Provençal term for "lover", which comes from the Latin word "amator" - a word for lover which refers to the property of being flammable! The Oxford Concise English-French Dictionary defines amadou as "German tinder", which fits with an East European origin for this invention. The French common name for the amadou fungus is "l'amadouvier". -RSW]

IN DEPTH: Electronic forays

by rwinder@a1.pfc.forestry.ca

I would like to introduce a new feature, IN DEPTH. In it, I would like to discuss technical subjects with readers of *Fungifama*. That being said, I really need to know how readers feel about introducing more technical subjects to the newsletter - it is your newsletter, and you should have some say about where your dues go. Please take some time to fill out the poll at the end of this column. It will help me a lot to know exactly what *Fungifama*'s audience expects.

As you can see from Brenda's article, computer networks can be a handy thing. There are two ways you can keep up with the blizzard of mycological information streaming through electronic cyberspace these days. The first way is easy - just keep reading *Fungifama*, and we'll try to digest some of this computer network chaos for you. This article is for the second type of person, the hardy adventurer willing to foray out into dark electronic forests with names like "Compuserve" and "Internet". While there is not enough space here to provide detailed instructions for reaching the infobahn and navigating it (consult your local computer shop or book store), we can provide you with a travel guide listing some interesting mycological destinations to consider. If a specific destination catches your eye, you know who to see for details. I've compiled this list with the help of various Internet sources, including Ulf Thrane and Keith Siefert's guide "[Mycological Resources on the Internet](#)" and Brian McNett's *MycolInfo* newsletter. Where off-Internet fees are required, I just give the e-address to contact for further information (but SVIMS members can also contact me for further details if they are shy...)

Electronic newsgroups: These are network-distributed public bulletin boards where people "post" questions, answers, and all manner of opinions and other information. The newsgroups I happen to like for mycology are:

Usenet: sci.bio, sci.agdculture, sci.environment, rec.gardens
Bionet: bionet.mycology, bionet.plants, bionet.agroforestry

Bulletin boards: These are like newsgroups, but they are not distributed to multiple sites- you have to go find them.

- **Mycological Society of America bulletin board** (read with gopher: N. America / USA / Mass. / Biodivers/ty & Biological Collections (Harvard.) / Biodiv. info. resources / MSA bulletin board; to post or get info., send e-mail to msa-news@huh.harvard.edu)

- **Koeltz Scientific Books** (Natural History Bulletin Board, dial 1-217-355-4532, set to ANSI, ZMODEM)

Lists: These are maintained by a person or organization sometimes with the help of an automated postmaster program/device called a list server. You send e-mail, and everyone on the list gets it.

- **Myconet** (includes sublists for general mycological discussion, medicinal uses of fungi, education and fungi, and databases; subscribe message goes to pestmaster@myconet.org)
- **Fungus** (Professional and amateur mushroom cultivation; subscribe by e-mailing Fungus-request@telepert.com with the message "SUBSCRIBE FUNGUS <your e-mail address>")
- **Taxacom** (Biosystematics & biogeography; subscribe by e-mailing listserv@harvard.edu with the message "signup taxa(om <your name>", with no subject or signature lines)
- **Micronet** (send e-mail to listserv@uoguelph.ca with the message "subscribe micronet <your name>")
- **Symbios** (for researchers interested in symbiotic relationships, including the fungi. Please do not mistake this for a match-making service for mycologists! To biosci-server@net.bionet, send the message "subscribe symbios".)

Electronic newsletters: These are e-mailed from a single source to a list of e-mail addresses.

- **MycolInfo** (Topical mycological articles, available through the FUNGUS list [fungus@teleport.com], via gopher [gopher.igc.apc.org], or e-mail from the editor (contact bmcnett@linknet.kitsap.lib.wa.us).
- **Colorado Mycological Society newsletter** (contact Wayne Harrison at wharrison@aol.com).
- **CMS Spore's afield** (archived at the MycolInfo gopher site)
- **BEN** (Botanical Electronic News, devoted to Botany in B.C. and Western North America, and put out by ourveryown member, Adolf Ceska; aceska(~cue.bc.ca).

Data Banks, Guides, and Services: These are collections of information which can be accessed by the public.

- **A Biologist's Guide to Internet** (40 pages; to ftpmail@sunsite.unc.edu, send the following message and wait for the reply:
open
cd pub/academic/biology/ecology+evolution/bioguide
get bioguide.faq
get README
quit
- **US national fungal collection** (includes tons of info on mycological literature, including an index for Mycologia. and collection information on over a million cultures; for info., e-mail dave~fungi.ars-grin.gov)
- **Mycologists online** (E-addresses of mycologists; send gopher to N. America / USA / Mass. / Biodiv. & Bio. coll. (Harvard) / Biodiv. & Bio. coll. / Directories of Biologists / Mycologists Online)

Next issue: Making mushrooms, part 1.

POLL (Don't sign your name if you don't want to):

- 1) I consider myself a) a beginner b) a student c) an expert
- 2) Regarding IN DEPTH technical information, I prefer:
 - a) the less technical, the better
 - b) technical is fine with me (How often?) ___ / yr.
 - d) other
- 3) Any other comments, suggestions, etc.?

Send to: R. Winder, 5614 Woodlands, RR#1, Sooke, B.C. V0S 1 NO

LETTER TO THE EDITOR- Agaricus praeclaresquamosus edible?

I sometimes find a few field mushrooms, Agaricus campestris, in the grass of the parade ground at Royal Roads in the fall. Last October I was delighted to find a clump of what appeared to be large ones. They were actually in the Japanese gardens growing from a clump of creeping bamboo (Sasa) by the rustic gazebo across the pond from the teahouse. Their 'identity' was confirmed by my outdated, first edition, of Miller: mushrooms of North America.

Cooking them up they looked delicious except for a strange smell like old oil paint being blowtorched. Anyway I ate a good meal of them, say about 50g, thinking it was a few maggots giving the off taste. No ill effects except they were several steps down from delicious.

It turns out I presumably ate A. praeclaresquamosus, not mentioned in my edition of Miller. The large size, up to 12cm, and the woodland location had me suspicious that I had horse mushrooms, A. arvensis, but the lack of any yellow staining when bruised lulled me into thinking only of A. campestris. -M.J. Harvey, Victoria

[Joe, Thanks for the story. You were lucky. In Mushrooms Demystified, D. Arora says that many people find A. praeclaresquamosus, the "Flat-top Agaricus", to be outright poisonous. It can be distinguished from A. arvensis by the dark grey fibrils on its cap, and from A. augustus by its smooth stem. It doesn't always stain yellow. I will not warrant the accuracy of any of this information, but in the specimens I've seen, you had to be careful to get the entire base of the stem, because the yellow staining only happened at the extreme base of the mushroom. The staining takes a few moments to happen, and can be easily overlooked. Flat-tops are especially found along woodland paths. This is a good lesson for everyone- if it smells like old oil paint being blowtorched (or anything else nasty, for that matter) don't eat it! -RSW]



"OK, LISTEN UP! THE NEWS IS PRETTY GRIM. INTELLIGENCE SAYS THAT ELEMENTS OF SVIMS ON ROUTINE PATROL HAVE BEEN SPOTTED IN OUR SECTOR - THEY MAY BE PREPARING TO SEND IN A FORAY. MORELS, TAKE COVER, RUSSULAS, TAKE THE LEFT FLANK AND BLEND IN WITH EACH OTHER. YOU L.B.M.'s SCATTER, AND YOU CORTS TAKE THE POINT AND CONFESE THEIR FORWARD OBSERVERS. I WANT YOU HYDNUMS TO CREATE A DIVERSION ON THE RIGHT FLANK, AND FOR GOD'S SAKE - YOU BOLETES AND CHANTERELLES KEEP YOUR HEADS DOWN THIS TIME!"

UPCOMING EVENTS

2 March SVIMS meeting at the Pacific Forestry Centre, 7:00 p.m. Guest speaker: Dr. Scott Redhead who is Director, Economic Fungi Program, Agriculture - Agrifood Canada, Centre for Land and Biological Resource Research, Central Experimental Farm, Ottawa. Scott is one of Canada's foremost mushroom experts. There is no such thing as an unidentified LBM when he is around. He has not given us a lecture topic so far, but rest assured whatever he presents will be interesting, and superbly illustrated with beautiful photographs. Anybody who saw his lecture last year will testify to this.

7 March VMS regular meeting, Van Dusen Botanical Gardens

30 March - 2 April Spring Mushroom Jubilee: "An informal gathering of fungal fanatics in Northern California." Mushroom cultivation, uses, and hunting wild mushrooms. 105 USS/person- call Sandy Bar Ranch, 916-627-3379.

15 October VMS annual mushroom show, Van Dusen Botanical Gardens

IBLEWIT

In the last issue of Fungifama, Helvella "lacuonsa" = H. lacunosa. In the checklist, Cantharellus floccosus is a synonym of Gomphus floccosus. The Hygrocybe punicea reported for last February should have been H. flascens.



Agaricus bisporus