

SLIME MOLD



Fuligo septica (Kingdom Amoebozoa, Phylum Mycetozoa, Class Myxomycetes, Order Physarales, Family Physaraceae) is known as the dog vomit slime mold or the scrambled egg slime mold due to its yellowish, bile-coloured appearance. Photo taken by **Richard Winder** at China Beach.

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DID THE LISTERS COLLECT SLIME MOLDS
IN VICTORIA?

By Shannon Berch

“Slime mold or slime mould is a broad term describing some organisms that use spores to reproduce. Slime molds were formerly classified as fungi but are no longer considered part of this kingdom. Their common name refers to part of some of these organisms' life cycles where they can appear as gelatinous ‘slime’. This is mostly seen with the myxomycetes, which are the only macroscopic slime molds.”¹

Arthur and Gulielma Lister, father and daughter, were talented and hard-working amateur naturalists who studied the myxomycetes and produced many publications on the group including the *Monograph of the Mycetezoa* in 1894. Gulielma was a founding member of the British Mycological Society.

In 2008, I received a note from Dr. Stuart P. Kenning of Victoria pointing out that Arthur and Gulielma had visited Victoria in September of 1897. They accompanied Lord (Joseph) Lister, brother of Arthur, and Surgeon Extraordinary to the Queen on his visit to inspect the new operating wing at the Royal Jubilee Hospital. At the time, “surgery was a measure of last resort”^{2,3} with a mortality rate of 50%. Joseph Lister believed that this staggering mortality rate was due to the ‘germs’ recently described by Louis Pasteur. The Pemberton Memorial Operating Room was designated a National Historic Site in 2006³.

As Dr. Kenning pointed out in his note: “It would be interesting if Arthur or Gulielma later described any west coast finds or kept a diary of the Canadian visit”.

In an attempt to see what kind of information might be available, I contacted the British Museum to determine whether they still housed the Listers’ collections and if so what it would take to search them for Canadian collections. I got a response from Dr Holger Thüs, curator of the lichen and Myxogastria collections at The Natural History Museum (NMH). He explained:

“A. & G. Lister were working at the Natural History Museum [in their time called the “British Museum (Natural History)”] when they published the “Monograph of the Myzetozoa” and the bulk of their types together with a large amount of their collection is still curated here at the NHM. As a permanent loan from the British Mycological Society our library also preserves the Lister notebooks which include a register of the specimens kept here. The catalogues contain information on the country or larger geographic unit of origin but not collector, date or precise locality.

Only very few of the Myxogastria at BM are databased yet, but I have looked through the handwritten catalogue for our collections in the Lister’s notebooks and found one single entry for British Columbia. Unfortunately this entry has the annotation “not kept” and for this reason the full label – which would be necessary to prove that the catalogue entry refers to a collection by the Listers themselves and not to material sent to them by others - is possibly lost. We do have evidence for collection activities by both A. & G. Lister during their visit to Canada in the form of a collection of *Arcyria denudata* from August 1897, but this collection was made from woods by Toronto (BM.3064), not from British Columbia”.

The Listers’ visit to Victoria occurred in September. Perhaps it was a warm, dry September and slime molds were not yet fruiting.

1. http://en.wikipedia.org/wiki/Slime_mold

2. Danda Humphreys. 2008. Historic operating room a monument to the advent of antisepsis. CMAJ 178(2): 193-194.

3. Pemberton Memorial Operating Room, National Historic Site, Restoration Project; A project of the Victoria Medical Heritage Society. Brochure.



How about KNITTING a mushroom a day for a year? A fibre artist from Oklahoma is doing just that and is well on her way to 52 forms of fungi in 2013. You can see her work at Knitting and Nature, www.bromeleighad.com

Photo with permission of the artist.

FUNGIFAMA DEADLINE

Please submit your stories, announcements, and photos by **December 15th** for the next edition of the newsletter.

jillstanjs@hotmail.com

WELCOME TO OUR NEW MEMBERS!

Wyatt Harris

Linda Harris

Larissa Taylor

Andre & Holly Bailly

James Ashcroft & Sadie Young

Stephanie Hurst

Kurt Raeder

Donna Montgomery & Dan Carroll

Vic O'Connor & Kathryn Legros

Jennifer Oakes

Don How

Judy Cashin

Peter & Brenda Day

Jayne Hemming

Jason Smith & Erin McLeese

Alice & Fred Waldie

George Butcher

Jaz Grenier

Julian Young

May Blair

Larry Guilbert

WELCOME BACK!

Barry Plewes

Pat Sokolowski

UPCOMING

October 18-20, 2013

SVIMS Annual Foray

Forestry Research Centre
Lake Cowichan

October 27 , 2013, 10-4pm

SVIMS Annual Mushroom Show

Swan Lake Nature Centre

November 7, 2013, 7pm

SVIMS Meeting, Pacific Forestry Building

Huitlacoche, other smuts and rusts

Britt Bunyard, Fungi Magazine

December 5, 2013, 7pm

SVIMS Meeting, Pacific Forestry Building

A Photographic Tour of the BC Coast,

Including Fungus/Invertebrate Relations

Juliet Pendray and James Holkko
Vancouver Mycological Society

FURTHER AFIELD

October 18-20, 2013

Fungus Among Us Mushroom Festival

Whistler, BC

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

October 18-20, 2013

Shroom Mushroom Festival

With Robert Rogers

Sechelt, BC

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

October 24-27, 2013

NAMA Annual Foray

The Ozarks AK

<http://www.namyco.org/events/NAMA2013/index2013.html>

November 1-2, 2013

Saturna Island Foray

Michael@paprika.ca

November 2, 2013

Quadra Island Foray

<http://qioutdoorclub.org/>

November 2, 2013

Galiano Mushroom Festival

galianonaturalists@gmail.com

January 24-26, 2013

Oregon Truffle Festival

www.oregontrufflefestival.com



MEMBERSHIP NEWS



In June 2013, Oluna and Adolf Ceska were invited to present the prestigious **Weresub Memorial Lecture in Mycology** at the annual meeting of the **Canadian Botanical Association (CBA/ABC)** in Kamloops, BC. In a presentation entitled “**Mycofloristics is an Uphill Battle**”, Oluna spoke about their long-term study of the macrofungi on Observatory Hill a project that started in 2004 and has been supported by the Herzberg Institute of Astrophysics and several anonymous donors.

After 9 years and close to 300 visits Oluna and Adolf have collected and identified over 1,160 species of macrofungi from an area of about 75 ha. The Ceskas’ collections have provided rich material for mycological projects dealing with taxonomical problems of several genera (e.g., *Tubaria*, *Cortinarius*, *Inocybe*, *Russula*) and several new species are being described based on it.

Their presentation was very well received, and as Dr. Guinel, the CBA President, noted, it was “inspiring, informative and funny, and provided an example, perhaps one of the finest in the world of what can be discovered with long-term commitment to mycology survey.”

Congratulations to Oluna and Adolf.



Sisyphus on the screen behind Oluna and Adolf.

Photo credit: H. Massicotte

Biography

Oldriska (Oluna) Ceska has a Masters degree (equivalent) in mycology from the Charles University in Prague (thesis on “Melanconiales of Czechoslovakia”). After coming to Canada in 1969, she worked on a Ph.T. (“Putting Hubby Through”) at the University of Victoria in phytochemistry and in genetics of the flavonoids in corn and the coumarins in umbellifers. Her greatest achievement during this part of her career was the discovery of coriandrin, an until then unknown furanocoumarin in cilantro. In the late 1990s she returned to mycology and has been working on the mycofloristics of various parts of British Columbia.

Adolf Ceska is a plant ecologist with focus on vegetation and vegetation classification. He has been involved in Oluna’s projects as a car driver, field assistant, mushroom photographer, computer operator, library liaison, and chef.

THE GREAT ALBERTA FORAY 2013

by Jean Johnson

Photo: Paul Kroeger



Bernie & Jill Stanley, Jean & Steve Johnson

Not content to wait until westcoast rains produced mushrooms, four SVIMS members attended the Great Alberta Mushroom Foray at Castle Mountain Wilderness - Westcastle, AB at the end of August.

At 4,700 feet, the Castle Mountain Ski Resort provided camping, plug-ins for RVs, and a hostel for accommodations. Over 60 folks attended the foray including Vancouver Mycological Society's Paul Kroeger.

These annual Alberta forays are more than “pick for the pot” experiences, although avid pot hunters would not have been disappointed. Fungal specimens are picked, identified, numbered and entered on a database. Rare or extremely interesting species are photographed and dried for future storage.

Dr. Patrick Leacock, adjunct curator (fungi) of the Field Museum of Natural History in Chicago, Illinois gave an excellent presentation on how to collect and preserve field specimens.

Dr. Tom Bruns, professor, University of California Berkeley added a new aspect to fungal collecting: processing a specimen for DNA analysis. It requires a uniquely manufactured “card” and a hammer. A tiny portion of the fungus is laid on a card made of proprietary materials, then hammered so that the specimen is imbedded in the card. The sound of pounding from scientists, not boom boxes, was heard until late in the night.

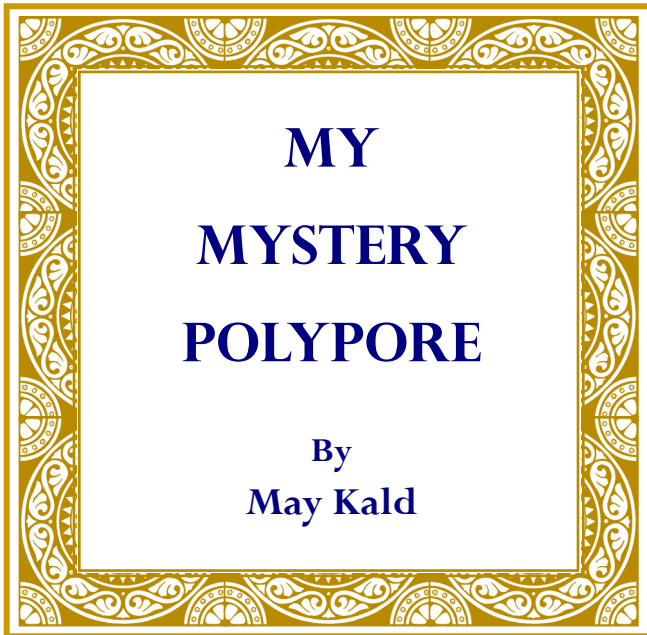
Paul Kroeger held us spellbound with his talk about Poison Mushrooms or, as he calls them, “Darwin’s Elves”.

The terrain varied—from wetlands, subalpine coniferous forests, to old growth aspens and douglas firs. The killer foray was straight up one of the ski hills to a plateau teeming with ripe wild blueberries and huckleberries.

We all got our share of edibles such as *bolete*, *leccinum*, and *suillus* species, *armillaria* (also known as honey mushrooms), *Lactarius deliciosus*, *hericium*, and green *russulas*.

The Alberta folks are extremely friendly and welcoming. Next year, if you, too, cannot wait until Vancouver Island mushrooming begins, consider attending the Great Alberta Foray. It is in a new location every year but the food, accommodations, and camaraderie are always plentiful.

Alberta Mycological Society website: www.wildmushrooms.ws The annual foray is usually held on the Labour Day Weekend.



I'll start right at the end. My mystery polypore is, without doubt, *Climacocystis borealis*.

Dr. Jim Ginns, polypore expert, determined the identification, verified by photomicrographs sent to him by Brenda Callan, mycologist at the Pacific Forestry Centre. A mystery no longer, it now sits in a dehydrator at the PFC, from where it will move into permanent residency in the herbarium as the only sample found on Vancouver Island.



It took longer to travel this journey than I imagined....

On September 16, walking along a very familiar trail with a visitor from Saskatchewan, I was surprised to see a large, pretty, bright yellow and white polypore. Wow, look at that! Though I had never seen one in this location, from its general shape, colour and habitat I assumed it was *Laetiporus conifericola*.

There was no time to have a really good look. Instead, my guest and I just took a few pictures.

The next day, when I had a chance to study my photos, I realized that my assumption was probably wrong. This did NOT look like previous *L. conifericola* that I had seen. So I went back, had a closer look and took more photos.



Pore surface and margin detail

Though I was now positive that I had never seen this kind of polypore before, I thought identifying it would be relatively easy.



Upper surface and margin detail

After all, there really are not a lot of polypore species around here that are big and showy. Right! So I tried the [PNW Key Council Keys to Mushrooms of the Pacific Northwest](#), couldn't find a match; Googled "Polypore" with no reasonable results; struggled through many levels of keys in Mushrooms Demystified with no more success, and almost gave up. Seems like "big and showy" is not a high-level key, a serious lack in my opinion. And did I need to know its name anyway?

Apparently I did need to know its name. I next sent a description and photos to SVIMS, confident that someone among its many members would recognize my mystery polypore immediately. I did get replies, but not the kind I had expected. Much to my surprise, no one seemed sure. I was at a loss as to where to go next till Shannon Berch recommended I contact Dr. Jim Ginns.

Jim eventually suggested *Climacocystis borealis*. Though he had personally not seen many fruiting bodies of it, photos he had seen online, plus the description, would make it the most likely fit. I could wait to see how the polypore developed to rule out the possibility that it was a pale version of *Phaeolus schweintzii*. "Microscopically, the two species should be easily distinguished..." he added.

Happy to have a name, I went online, looking for photos and descriptions of *C. borealis*. This is where inexperience led me astray. I did not come across photos that looked like mine. Unfortunately I didn't have [MatchMaker](#) (I do now), which does have good photos of it. I looked in Rogers Mushrooms and

part of the description, “felty to hairy, becoming partly smooth and partly covered in stiff hairs when dry” convinced me this was NOT my polypore. Oops!



No, whatever images “hairy” conjured in my brain, none fit what I saw on my polypore.

Does this look felty or hairy to you? OK, I am NOT a mycologist! I described it as soft but tough fibres like the flesh of a pineapple.

Meanwhile, I was becoming worried that my polypore might disappear without anyone else having seen it. Then who would believe me?

So I was happy to take Jean and Steve Johnson to have “Wow” when they saw it! No, they didn’t know what that the tree it was on was a hemlock.



a look. Even happier at their it was. But Steve did confirm

Uncomfortably, I thought Jim might be mistaken because I had not provided him the correct data for a proper identification. As they say “Garbage in, garbage out!”

Wanting desperately to change this situation, I took a small piece of the polypore and subjected it to as much scrutiny as I knew how to do. I also checked it against more sites online - if I ignored my bias against the word “hairy”, everything else fit! And I finally found more photos that did look like mine. This is the pore surface.



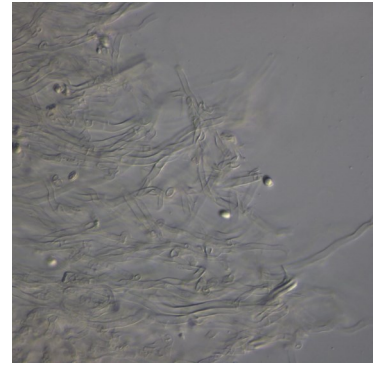
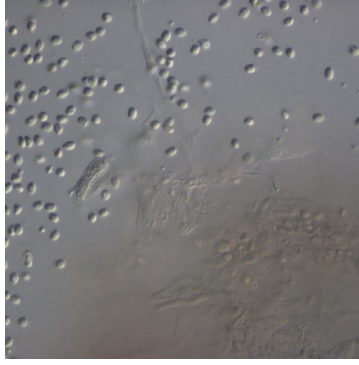
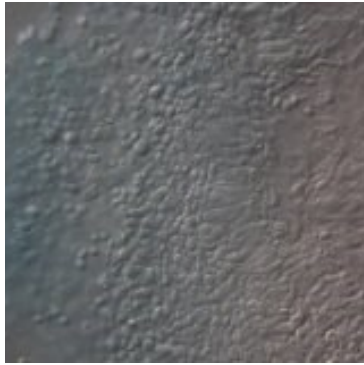
Whew! Of course Jim was right!

Meanwhile, Brenda Callan had volunteered to do the microscopic analysis. Working on the assumption that this polypore would indeed turn out to be *Climacocystis borealis*, I was asked to take the whole thing to the PFC so it could be saved in the herbarium. Weighing 1750 grams and being 24 cm wide, it was not a tiny thing I could just slip into my pocket!



Feeling like a thief, and totally unprepared to explain what I was up to, I sawed it away from its host tree and quickly left, thankful to run into no one.

Brenda took a sample and showed me the relevant bits on the slide. And here they are:



To those of you who know, presumably these show clamp connections on the hyphae and distinctive cystidia in the hymenium... I'll take Brenda's and Jim's word for it!

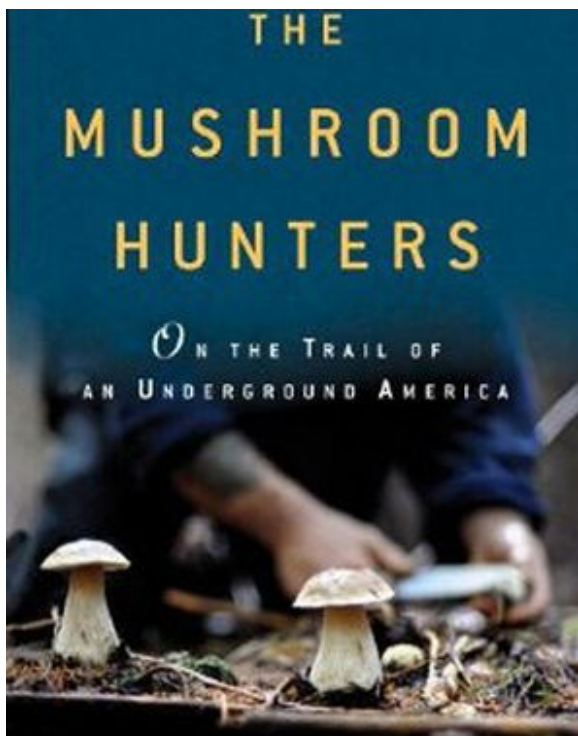
Thanks to everyone who took an interest and contributed to this quest for a name, and special thanks to Jim, Brenda, and Shannon!



MORE POLYPORES

Leigh Martin at www.bromeleighad.com





FOR YOUR BOOKSHELF

The Mushroom Hunters: On the Trail of an Underground America

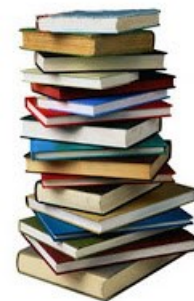
By Langdon Cook

September 2013

Publisher: Ballantine

\$30 CAD

ISBN: 0345536258



In the tradition of Michael Pollan's *The Omnivore's Dilemma*, Susan Orlean's *The Orchid Thief*, and Mark Kurlansky's *Cod*—a renowned culinary adventurer goes into the woods with the iconoclasts and outlaws who seek the world's most coveted ingredient . . . and one of nature's last truly wild foods: the uncultivated, uncontrollable mushroom.

Within the dark corners of America's forests grow culinary treasures. Chefs pay top dollar to showcase these elusive and beguiling ingredients on their menus. Whether dressing up a filet mignon with smoky morels or shaving luxurious white truffles over pasta, the most elegant restaurants across the country now feature an abundance of wild mushrooms.

The mushroom hunters, by contrast, are a rough lot. They live in the wilderness and move with the seasons. Motivated by Gold Rush desires, they haul improbable quantities of fungi from the woods for cash. Langdon Cook embeds himself in this shadowy subculture, reporting from both rural fringes and big-city eateries with the flair of a novelist, uncovering along the way what might be the last gasp of frontier-style capitalism.

Meet Doug, an ex-logger and crabber—now an itinerant mushroom picker trying to pay his bills and stay out of trouble; and Jeremy, a former cook turned wild food entrepreneur, crisscrossing the continent to build a business amid cutthroat competition; their friend Matt, an up-and-coming chef whose kitchen alchemy is turning heads; and the woman who inspires them all.

Rich with the science and lore of edible fungi—from seductive chanterelles to exotic porcini—*The Mushroom Hunters* is equal parts gonzo travelogue and culinary history lesson, a rollicking, character-driven tour through a world that is by turns secretive, dangerous, and tragically American.

David Laskin in the *Seattle Times* writes that Cook “shines a light on a shady subculture operating at the seam between wilderness and commerce.” It is a “beguiling, surprising book.”



CHRIS GEBHARD'S CHANTERELLE SAUSAGE

Two years ago while on a cycling holiday in Holland, I tasted a fantastic liver sausage with mushrooms. I have had a hankerin' for something like that ever since. And I have freezer full of Chanterelles, so I gave it a go. I made 3.5 kg. of sausage. The taste was not like the Dutch version, but nevertheless quite tasty. The liver flavour is mild, overall quite delicate with nothing overwhelming. Great on a slice of rye bread, but needs a condiment for a finish. Enjoy it for breakfast with a dollop of German mustard and a sour pickle!

Makes 1kg

300g pork liver
500g Class II pork
200g pork fat
175g chanterelle mushrooms,
cleaned, sliced and dry sauteed
50 g raw white onion
18g salt
2.5g Cure #1
8g dextrose
3g white pepper
2g marjoram
2g. coriander
pinch ground cloves
pinch ginger



Soak liver for one hour in cold water, remove veins and poach for 10 min. Poach fat for 5 min. Cool and then combine with the meat and onions and run through a fine plate (I used a 3mm.) two times. Add spices and mushrooms, mix well.

Stuff into whatever you like. I used beef middles to give it that rustic look.

Poach in 80° water until IT reaches 68-70°. Cool in ice water then transfer to fridge.

Then I cold smoked it for 5 hours, but that is optional. I would, however, recommend it.

CHANTERELLE TACOS

Adapted from Heidi Swanson's Super Natural Every Day

2TB olive oil
 2TB butter
 1/2 white onion, finely chopped
 1 small serrano chile (hot) or jalapeno (less so)
 2 cloves garlic
 Sea salt to taste
 12 oz chanterelles (or any mix of wild mushrooms)
 1 1/2 tsp Mexican oregano (available at Fairway)
 1/2C freshly grated parmesan
 4 taco shells or tortillas

1. Heat oil and butter, saute onion, chili, garlic and salt until translucent.

2. Dry saute chanterelles over high heat.

Combine 1 and 2.

Sprinkle chants with oregano, spoon into tortillas, top with parmesan or cheese of your choice.



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Victoria and environs is a busy place for mycophiles this fall. You won't want to miss an event, so check out Kem Luther's comprehensive and regularly updated list of events at

[http://
metchosinbiodiversity.com/
mushrooms](http://metchosinbiodiversity.com/mushrooms)

There's a foray, class, culinary event, festival or talk waiting for you!

THE LAST WORD

Seems lots of folks get excited about the fragrant Pine mushroom or Matsutake (*Tricholoma magnivelare*) around this time of year. I'm one of them, but I am not very successful at finding them on Vancouver Island.

Just in time for this fall's forays, I came across Matsiman's website which, if you can find your way through a jungle of links, gives all kinds of useful information. I learned that yellow coral is an indicator, as is the plant *Allotropa virgata*. Pines also like edges...of trails, timber cuts, roads, ridges...and fruit in areas that cool first. As the season progresses and cools, warmer situations begin to fruit. If you are lucky to have found a patch, it's useful to note the age of the mushrooms. "Whatever age you find indicates older mushrooms in cooler places, and younger in sunnier." And, of course, there is advice on how to pick well and responsibly, probably the first thing to think about when we are in the flush of excitement from a find!

Armed with this information and much more, I'm off to the logging roads this week. Wish me luck! And, if you need some knowledge to back up your enthusiasm, you can download a whole (free) booklet here http://matsiman.com/booklet/matsutake_booklet.

Happy trails!

Jill