



Spore Print

2009 No. 1 (The Newsletter of the Alberta Mycological Society)

Thirty plus Years of Mushroom Poisoning: Summary of the Approximately 2,000 Reports in the NAMA Case Registry

By Michael W. Beug, Marilyn Shaw, and Kenneth W. Cochran

In the early years of NAMA, toxicology was one of the concerns of the Mycophagy Committee. The existence of toxicology committees in the Puget Sound and Colorado clubs stimulated the NAMA officers to separate the good and bad aspects of ingesting mushrooms. In 1973 they established a standing Toxicology Committee initially chaired by Dr. Duane H. (Sam) Mitchel, a Denver, Colorado MD who founded the Colorado Mycological Society. In the early 1970s, Sam worked with Dr. Barry Rumack, then director of the Rocky Mountain Poison Center (RMPC) to establish a protocol for handling information on mushroom poisonings resulting in the center becoming nationally recognized for handling mushroom poisonings. Encouraged by Dr Orson Miller and acting on a motion by Kit Scates, the NAMA trustees then created the Mushroom Poisoning Case Registry in 1982. Dr. Kenneth Cochran laid the groundwork for maintaining the Registry at the University of Michigan. Dr. Cochran continues to maintain the gateway through which

individuals can report mushroom poisonings using the NAMA website (www.namyco.org). The reporting is an entirely volunteer effort and at the end of each year members of the NAMA toxicology committee assemble all of the reports for the previous year as well as any other earlier cases that can still be documented. Individuals are encouraged to submit reports directly through the NAMA website. In addition members of the toxicology committee work with Poison Centers to directly gather mushroom poisoning reports. Marilyn Shaw (Colorado, Montana, Idaho, Hawaii and Las Vegas, NV), Dr. Bill Freedman (California), Jan Lindgren (Washington and Oregon), Judy Roger (Washington and Oregon), Dr. Ken Cochran (Michigan and the upper Midwest), Hanna Tschekunow (Florida and Eastern U.S., now Washington), Dr. Denis Benjamin (Washington and now Texas) and many others have worked hard to track down and record details of mushroom poisoning cases.

The first annual NAMA report of mushroom poisoning cases was published by Dr. Cochran in



Paxillus involutus.
Photo courtesy of Mike Beug

Mushroom: The Journal in 1985 (Cochran, 1985). All subsequent reports are in McIlvainea (Beug 2006; Cochran, 1986, 1988, 1999, 2000; Lampe, 1989; and Trestrail 1991, 1992, 1994, 1995, 1996, 1997, 1998). In some of Dr. Trestrail's reports (Trestrail 1992, 1994, 1995, 1996) he compares numbers of mushroom toxic exposures reported to NAMA to reports to the Poison Control Centers compiled through the Toxic Exposure Surveillance System of the American Association of Poison Control Centers. From this data we can infer that mushrooms account for about 0.4 to 0.5% of total

(Foray ...continued on page 3)

Mushroom Poisoning

(continued from page 1)

toxic exposures. NAMA is receiving reports totaling about 1% of mushroom poisoning cases that are reported to Poison Control Centers each year. While about 90% of mushrooms in the Toxic Exposure Surveillance System are unidentified, NAMA involvement drops the % unidentified mushrooms into the range of 10 to 30%. Also, since approximately 80% of the reports to PCCs involve asymptomatic events, we conclude that NAMA reports get filed for about 10% of the symptomatic poisoning cases (and probably well over 50% of the cases involving a fatality).

The NAMA database that is maintained of all of the poisoning case reports that have been received by the toxicology committee is not readily accessible when questions arise. This paper summarizes all reports in the database where the mushroom could be reasonably well identified. We cover all material through December 2005. Unlike the annual reports, we will not delve into treatments or why the person may have consumed the mushroom (e.g. for food, for recreation, mistaken identification, etc.). The only age determination we make is for adults

(and here we treat teenagers as adults) versus children. However, bear in mind that symptoms can be most severe in individuals whose health is previously compromised (due to age, alcohol or chronic disease) and in children whose digestive and immune systems are not yet fully developed. There are unusual cases where the death is not directly due to mushroom toxins. These include a previously severely ill elderly man who ate several successive huge meals of a *Gyromitra* species but the symptoms related to his death did not match any known mushroom symptoms. A quadriplegic consumed purchased *Psilocybe cubensis* (of uncertain quality), went into anaphylactic shock and died. One woman of a group of 5 ate what was probably *Laetiporus sulphureus* suffered severe GI symptoms, dermatitis, and died in 19 hours while no one else in the group was even sick. After passing unconscious from a large meal of *Amanita muscaria*, a man froze to death in his tent in Michigan. On the other side of the coin, we have not entered numerous cases where someone consumed an *Amanita* in the "Destroying Angel" group and had no ill effects or consumed a plateful of *Chlorophyllum molybdites* or some *Amanita muscaria*, etc. without getting sick. We have also not reported on the huge number of cases (roughly 33% of the total) where the cause of the

poisoning is unclear due to the ingestion of several species at a time or due to the failure to preserve or produce any of the mushrooms for later identification.

The reports that have been summarized here are voluntary



Inocybe sororia gills. Photo courtesy of Martin Osis.

reports. In some regions (the Rocky Mountain region and the Pacific Northwest) the reporting is quite extensive (though undoubtedly not complete). In other regions the reporting is very spotty because at times during the past 23 years there have been few active experts in the area. Sometimes one can be quite certain about what mushroom was consumed but at other times it is just an educated guess based on mushrooms gathered near where the suspect mushrooms were picked or from pictures that the victim pointed out in a book.

We have generally not attempted to use the most current name but have followed the names used in the reports. The approach has also been that of a "lumper." For example *Armillaria mellea* and *Laetiporus sulphureus*, are now

(Mushroom Poisoning ...continued on page 10)



Gyromitra esculenta. Photo courtesy of John Plischke.

Sicamous Foray 2008

September 25-28 found 5 AMS members braving the 10-12 hour drive from Edmonton to Shuswap Lake area to enjoy a weekend of foraging and foraging. The whole weekend was unseasonably pleasant weather the locals assured us, with mostly sunny picking conditions in lush undergrowth absolutely full of a variety of fungi that most Albertans only rarely see. So the conditions were set and with the Vancouver and area mycology societies well represented, AMS members either picked on their own or joined organized outings with BC resident expert Paul Kroeger as a guide.

Yard Creek Park, a former WW2 POW work camp near Malakwa, was one of the first areas visited. An abundance of wild

mushroom varieties such as Blewitt (*Lepista nuda*), Lobster (*Hypomyces lactifluorem*), Honey (*Armillaria mellea*), Black Trumpet (*Craterellus cornucopioides*), and Golden Chantrelles

(*Cantharellus subalbidus*) were found throughout the campground and surrounding riparian habitat. Access was very easy and filling a foraging basket was possible as much as one pleased. Many other varieties were present which provided plenty of opportunity for amateur taxonomic pursuits.

With cedar and hemlock forests rising out of the steep Interior Wetbelt that creates the conditions for the

plentiful fungal habitats, the selection of sites for picking seemed limitless.

Across the highway from Yard Creek at the Eagle River Nature Trails was more area to explore which revealed more mushroom

adventuring and an opportunity to see many plants common to the area. Interestingly, a trip down an embankment into a typical rainforest

creek bottom revealed no obvious fungi. Other naturalists were encountered on the trails and in the bush, some taking photographs, some interested in plants,

and some just appreciating the unique wilderness that East Sicamous presents.

This glorious trip to Sicamous was made even better by the Weekend Fungi Festival put on by a local resort and featuring a very enjoyable line-up of fungalicious entertainment. There was plenty of original, great local music, a couple of slide seminars showing off local mushroom habitat and culture,



Hypomyces lactifluorem. Photo courtesy of Robert Rogers



Among the bountiful harvest were the ever popular *Armillaria mellea*. Photo courtesy of Robert Rogers

fantastic opportunities for mycological gastronomy, and the ever-attendant beer garden. An incredible display of captured fungi, well labeled and with local expertise to discuss anything mycological, was put on by the fair and allowed for any individual to bring in specimens for displaying and/or identifying. The incredible Pine Mushroom or Matsutake (*Tricholoma magnivelare*) was available here for tasting as the festival somewhat coincided with the legendary Matsutake harvest of the area. While most pine mushroom picking sites are carefully guarded secrets, an attempt to locate one by scouting for mature Jack pine forests was relatively unsuccessful, although driving the backroads up and down mountains was spiritually and naturalistically rewarding.

Accommodations for this weekend are usually centered around the Paradise Motel where there are comfortable rooms and outdoor BBQ facilities, friendly owners, centrally located, and a hub of socializing. Do consider this destination as a must do event in any of your future foray plans that will satiate any mycologist, mycophagist or just plain old naturalist.

 Patrick Tackaberry



Lambert Creek Foray

September 13 & 14, 2008

Mushrooms were collected, food was shared and the odd beer was downed. Another great foray out at Lambert Creek. A huge collection of mushrooms were found by about 25 attendees over 81 different species. As opposed to other years no



Stropharia cyanea. Photo courtesy of Martin Osis.

dominant edible species was found but rather a great variety of many edibles. At least eighteen or more different known edible mushroom species were found, depending on how many *Russulas* you were including. Yet the usually hugely abundant Honey Mushroom was missing in action, not ONE specimen was found. Of course our list of seventeen known and undisputed edibles would be greatly expanded on by Charles McIlvaine and other braver mycophagists.

Most exciting for me was finding a mushroom never before recorded



Stropharia alces. Photo courtesy of Martin Osis.

in Alberta. *Stropharia cyanea*, a pretty little green mushroom with purplish gills and traces of a ring around the stalk. It was also joined by another fairly rare mushroom with only one other previous recording in the province, *Stropharia alces*. This one is much easier to identify, what gives it away is its species name, *alces*, meaning Moose. No, it does not look, smell, or taste like a moose but grows stately on a piece of moose dung.

The only complaint heard was about the huge amount of traffic that went by the campground at all hours. This year we will solve that by reserving the group camp across the highway. This is tucked away from the major throughfares along the banks of the Embarrass River. Should be a lovely weekend.

 Martin Osis

Species List For Lambert Creek Foray

Calvatia booniana
Gyromitra infula
Helvella crispa
Hypomyces luteo virens
Leccinum Fibrillosum
Leccinum insigne
Leccinum snellii
Suillus grevillii
Suillus tomentosus
Suillus umbonatus
Gomphus clavatus
Clavariadelphus ligula
Clavariadelphus borealis
Ramaria sp.
Geastrum Coronatum
Fomitopsis pinicola
Trichaptum bifforme
Trichaptum abietinum
Hydnellum caeruleum
Hydnellum peckii
Hydnellum aurantiacum

Hygrophorus eburneus
Hygrophorus conica
Hygrophorus picea
Hygrophorus speciosa
Hygrophorus chrysodon
Hygrophorus sp.
Entoloma sp
Cantharellula umbonata
Agaricus silvicola
Stropharia alces
Stropharia cyanea
Cortinarius trivialis
Cortinarius albviolaceus
Cortinarius semi sanguineus
Cortinarius caperata
Cortinarius sp 1
Cortinarius sp 2
Cortinarius sp 3
Cortinarius sp 4
Melanoleuca melaleuca

Melanoleuca cognata
Cystoderma amaianinum
Cystoderma sp
Hypholoma capnoides
Lactarius rufus
Lactarius uvidus
Lactarius representaneus
Lactarius sp.
Russula decolorans
Russula fragilis
Russula sp
Russula foetens
Russula xerampelina
Russula veteriosa
Pholiota squarrosa
Rhodocollybia maculata
Laccaria laccata
Tricholoma virgatum
Tricholoma vaccinum
Tricholoma flavovirens

Tricholoma caligatum
Tricholoma saponaceum
Tricholoma aurantium
Cantharellus tubeaformis
Gleophyllum sepiarium
Gleophyllum sp.
Telephora terrestris
Coprinus comatus
Albatrellus ovinus
Lycogala epidendron
Chroogomphus vinicolor
Hebeloma crustuliniforme
Hebeloma sp
Mycena sp
Mycena sp
Clitocybe dilatata
Clitocybe claviceps
Psathyrella velutina

Shiitake Mushrooms

Though originally from Korea and Japan, where it is also known as "Chinese Black Mushrooms" and "Forest Mushrooms" this mushroom is now being cultivated in the U.S., where it is sometimes called "Golden Oak".

As far as mushrooms go in the world of Culinary Careers, Shiitake Mushrooms are considered to be a power house of flavour and texture. They need other bold flavours to stand up to them otherwise everything is drowned out and tastes like Shiitake.

For this reason they are dominant in Asian cuisine where they pair well with ginger, garlic, basil, cabbage, peanut, konbu (seaweed), Soya sauce, Shiso, beef, lemongrass, lime, cilantro, sesame, etc. Also they go well paired with big flavoured and bodied wines such as "meaty" Pinot Noirs or traditional Sangiovese from Tuscany.

The attached recipe showcases the earthiness and big flavours of Shiitake and accompanies it with Peanut and heat. In the photo it is garnished with Toasted Peanuts and Crisp Shiitake Mushroom Chips.

Enjoy!

Chef Doug Overes

Doug Overes is an award winning Chef who has won gold medals in international competitions as both an individual member and Captain of Team Alberta. Currently he is a member of the Faculty of Professional Cooking at Lethbridge College. As well he is the President of the Southern Alberta Academy of Chefs and a new AMS member.

Recipe

Shiitake Velouté w/ Peanut Sabayon

Yield: 8 - 1 cup portions

Ingredients:

| | |
|-----------------|--|
| 1 cup (250 mL) | unsalted butter |
| ¼ lb. (115 g) | unsalted, skinless raw peanuts |
| 4 cups (1 L) | heavy cream |
| | Kosher salt and freshly cracked black pepper |
| 6 large | egg yolks |
| 2 lb. (900 g) | shiitake mushrooms, cleaned, stemmed and quartered |
| 3 | shallots, thinly sliced |
| 8 cups (2 L) | chicken stock |
| | Freshly ground white pepper |
| 1 cup (250 mL) | clarified butter |
| 1 cup (250 mL) | thinly sliced shiitake mushroom caps |
| 2 Tbsp. (30 mL) | chili oil |
| 2 Tbsp. (30 mL) | chopped chives |

Procedure:

- ❖ Place ½ of the butter in a large sauté pan over medium-low heat.
- ❖ Cook, stirring frequently, until it turns noisette (*brown like a hazelnut*).
- ❖ Add the peanuts and sauté for about 10 minutes or until the peanuts are golden brown.
- ❖ Add the cream and season with salt and pepper.
- ❖ Bring to a simmer and cook for 5 minutes.
- ❖ Pour the peanut mixture into a blender and process to a smooth puree.
- ❖ Pour through a fine sieve into a clean container discarding the solids.
- ❖ Taste and adjust seasoning if necessary.
- ❖ Place the yolks in a small bowl and whisk about ½ cup of the peanut sauce into the eggs to temper then whisk into the remaining peanut sauce.
- ❖ Again strain through a fine sieve and pour into a foam canister and pressurize. If you don't have a foam canister then you can whip it as if you were making whipped cream.
- ❖ Refrigerate until ready to use.
- ❖ Heat the remaining ½ cup of butter in a large saucepan over medium heat and add the quartered mushrooms and sauté for about 20 minutes or until the mushrooms are a deep golden brown.
- ❖ Add the shallots and continue to sauté for about 10 minutes or until they begin to caramelize.
- ❖ Add the stock and season to taste.
- ❖ Bring to a simmer for 10 minutes.
- ❖ Pour into a blender and puree and season to taste so a heavy accent of freshly ground white pepper is present.
- ❖ Heat the clarified butter and sauté the sliced shiitakes until light brown and crisp.
- ❖ Pat dry and reserve as garnish.
- ❖ Pour warm soup into serving bowl, top with a rosette of whipped sabayon, sprinkle with crisp mushrooms and dot with chili oil.



The Other side of Mushroom Poisonings

Charles McIlvaine was an amateur mycologist who pioneered amateur mycology in North America. Old "Iron Guts" as he is sometimes called made a career of trying many known and unknown fungi in a quest to find the edibles ones. His commentaries on many poisonous mushrooms still leaves many questions unanswered today on which ones we can eat and which should be avoided. Many apparently known poisonous mushrooms and disgustingly inedible mushrooms he rates very highly with added commentaries on the best preparation methods. He complains of persistent inaccuracies by mycologists following each others erroneous information. He states; "It is necessary to personally test the edible qualities of hundreds of species." If he has "vouched" it safe it has been personally tested by himself and his "friends" eating full meals of them. The following is an excerpt from the preface of Charles McIlvaine's book "One Thousand American Fungi":

- Martin Osis

"A score of years ago (1880-1885) I was living in the mountains of West Virginia. While riding on horse back through the dense forests of that great unfenced state, I saw on every side luxuriant growths of fungi, so inviting in color, cleanliness and flesh that it occurred to me they ought to be eaten. I remembered having read a short time before this inspiration seized me, a very interesting article in the Popular Science Monthly for May, 1877, written by Mr. Julius A. Palmer, Jr., entitled "Toadstool eating." Hunting it up I studied it carefully, and soon found myself interested in a delightful study, which was not

***The Alberta Mycological Society
wish to express our sympathies to members of
the Mycological Society of Toronto.***

In January of 2009, both

President Vella Soots

and

Vice-President John Sparling

***passed away. This is a great loss to members of
MST, as well as to the mycological community
at large. We send our deepest condolences to
families and friends of Vella and John***

without immediate reward. Up to this time I had been living, literally, on the fat of the land – bacon; but my studies enabled me to supplement this, the staple dish of the state, with a vegetable luxury that centuries ago graced the dinners of the Caesars. So absorbing did the study become from gastronomic, culinary, and scientific points of view, that I have continued it ever since, with thorough intellectual enjoyment and much gratification of appetite as my reward. I hope to interest students in the study as I am myself interested.

For twenty years my little friends – the toadstools – have been my constant companions. They have interested me, delighted me, feed me, and I have found much pleasure in making the public acquainted with their habits, structure, lusciousness and food value.

My researches have been confined to the species large enough to appease the appetite of a hungry naturalist if found in reasonable quantity; and my work has been devoted to the segregating the edible and innocuous from the tough,

undesirable and poisonous kinds. To accomplish this, because of the persistent inaccuracy of the books on the subject, it was necessary to personally test the edible qualities of hundreds of species about which mycologists have either written nothing or have followed one another in giving erroneous information. While often wishing I had not undertaken the work because of the unpleasant results from personal testing fungi which proved poisonous, my reward has been generous in the discovery of many delicacies among the more than seven hundred edible varieties I have found.

(Editors Note: of the one thousand that he tried he found three hundred of them inedible and/or endured hundreds of self inflicted poisonings.)

Birds, flowers, insects, stones delight the observant. Why not Toadstools? A tramp after them is absorbing, study of them interesting, and eating of them health giving and supremely satisfying.



Charles McIlvaine

A Mushroom weekend!

Mushrooming in March, what a concept!

Over the last few years we have held wonderful full day Annual General Meetings with interesting topics and speakers. To balance the tedious but necessary business meeting, we have added more interesting fungal topics since starting this format. As well it gets us excited about the upcoming mushrooming year. The business part of the meeting usually takes an hour or so and the rest of the day is set aside for mushrooms and related topics. Since our Society has grown to a more provincial scale and we have more members from further afield we have decided to incorporate the President's Dinner as part of the weekend. This way out of town members can participate more easily.

We also are excited to go back to NAIT for the President's Dinner after several years absence. NAIT's School of Hospitality became a Society member this year and are very interested to have their students learn more about mushrooms. They have also graciously donated the venue for our AGM along with giving us a mushroom cooking demonstration as part of our AGM programming. What a great way to start the year!

President's Dinner

Friday March 20, 2009

Ernest's Dining Room NAIT - Learning Resource Centre. There will be a cost of \$40.00 per person. Please look for the registration form which will be sent via email.

6:00 to 7:00 - Cocktails and Cooking Demonstration by NAIT Students.

7:00 to 8:00 - President's Dinner

8:00 to 9:00 - President's Award

(A Mushroom Weekend ...continued on page 9)

President's Dinner Mushroom banquet

March 20th, 2009

Ernest's Dining Room - Nait School of Hospitality

Cocktails 6:00 pm

Assorted Passed Hors D'oeuvres

Lobster Mushroom Bisque
Crème Fraîche and Brandy

Wild Mushroom Terrine
Baby Arugula
Chokecherry Compote

Morel and Asparagus Stuffed Chicken Breast

Creamy Roasted Garlic Double Corn Polenta

Spring Vegetables

Or

Pan Seared Pork Tenderloin
Morel and Apricot Ragout
Rosemary Roasted Baby Potatoes
Spring Vegetables

Chocolate Truffle Cake

Mini Rhubarb and Vanilla Mascarpone Napoleon

Raspberry Rhubarb Sauce

Wine is included with dinner



Annual General Meeting

Saturday March 21,

2009

Ernest's Dining Room in "The Learning Resource Centre" on the North end of the downtown campus at 107 Street and 118 Avenue. Lunch will be catered by NAIT at no cost to members.

Schedule:

- 09:00 Coffee
- 09:15 President's message and reports.
- 10:30 Mushroom Cooking Demonstration - TBA
- 12:00 Lunch - Demonstration of the on-line Mycological Database.
- 13:00 Election of Officers, Voting on motions.
- 13:30 North Saskatchewan Watershed Alliance Presentation - A huge part of our mushroom picking habitats lay within the North Saskatchewan watershed. They will share some facts and concerns about the watershed.
- 14:30 Coffee break.
- 14:45 Photo contest slide show & winners. Excitement for the contestants but more importantly a presentation of beautiful mushrooms captured in their natural habitats.
- 15:30 Review and discussion of upcoming years events.
- 16:00 Wrap up

Annual Winter Foray

Sunday March 22,

2009

Polypore foray

10:00 a.m. Whitemud Creek ravine, map to follow.

Mycological Miracles

*Here are some interesting
"Guinness Records" of mine.
Perhaps other members can beat
the records or have other records
of their own*

Earliest collected mushroom in Alberta - *Coprinus macrocephalus* on March 26.

Latest collected mushroom - other than perennial polypores - *Stropharia semiglobata* on November 11.

Largest gilled mushroom - *Leucopaxillus giganteus* had a cap diameter of 40 cm.

Largest puffball - *Calvatia booniana* had a diameter of 35 cm.

Heaviest fungus - *Calvatia booniana* weighed in at 11.5 pounds.

Sean Abbott

*(taken from The Stinkhorn Volume 1, No. 1
1987)*

Mark Your
Calendars!

The **Alberta Foray** will be held at Lesser Slave Lake, based out of the Northern Lakes College in Grouard, August 20 through August 23.

A Mushroom I.D. Course will be held at Blue Lake Centre in William Switzer Provincial Park near Hinton on August 1 & 2, 2009.

Details for both events to follow.

Mushroom Poisoning

(continued from page 3)

recognized as complexes of several species, but there has often been no way to figure out what the actual culprit was, though by looking at the location one can sometimes make a good guess. A confounding factor here is that mushrooms can be contaminated by bacteria and molds and the symptoms from bacterial and mold contamination are extremely similar to most mushroom poisoning symptoms. Some of the cases certainly do appear to have been a result of consumption of spoiled mushrooms that were old before consumption or had been frozen raw (which allows the bacteria to keep growing). Also for mushrooms growing in lawns, flower beds, along roads and on golf courses there is the question of contamination by insecticides or heavy metals. In a few cases there was specific recollection of a recent Malathion or other insecticide spray. We have a Table of poisonings where alcohol is implicated because there were individuals who said that they could eat the mushrooms if they did not drink alcohol. We are certain that several additional GI cases were also alcohol related. We have tabulated all of the reported dermatitis cases because that information has remained scattered. Where the case involved both dermatitis and GI symptoms, the event was tabulated in both tables.

We were surprised at some of the things that we found (or did not find). In over 2,000 reports, there were only three cases total involving a *Cortinarius* species, even though that is a huge genus with many large fleshy fungi. We did not find a single mention of a poisoning that matched the symptoms of orellanine poisonings. So far orellanine has been found in only one small brown *Cortinarius* species in North America. A further check of other

available sources also failed to come up with any orellanine cases anywhere in North America. While we have often seen 50% quoted as a death rate for consumption of mushrooms containing amatoxins, we calculated an 11% death rate for reported cases of people who became ill. The overall rate of death from amatoxins is well under 10% when you count the people who showed no symptoms.

Furthermore, we only found record of 5 liver transplants for a transplant rate of 3.5% in amatoxin cases. From other sources, we know that *Galerina autumnalis* can be fatal, but none of those reports have made their way into the database. Similarly, many cases of *Galerina autumnalis* ingestion that did not lead to death did not make this report. The one death reported from mushrooms causing GI symptoms with unknown toxins/irritants was from *Boletus pulcherrimus*. To our surprise, there were no reported deaths from the mushrooms noted for causing kidney failure, *Amanita smithiana* and *Paxillus involutus*. Though *Amanita smithiana* was at one time thought to contain orellanine, orellanine is not present. The toxin in *Amanita smithiana* is allenic norleucine that is probably bound to a sugar in the mushroom. A second compound, chlorocrotylglycine, may also be toxic. The toxins in *Paxillus involutus* are unknown. We found cases where mothers became ill from a mushroom ingestion and nursing infants (and nursing puppies) became ill (the puppy died) from toxins in the milk. Though many people still eat



Amanita muscaria. Photo courtesy of Jim Malenczak.

Gyromitra esculenta, the large number of cases found where there was liver and/or kidney damage will hopefully lead individuals to cease this practice.

In examining animal poisoning cases, we were struck by how frequently dogs (and even cats) consume either *Amanita muscaria* or *Amanita pantherina*. Neither of these species is deadly in humans, but both can be lethal to cats and dogs. Similarly there were deaths of dogs from both *Inocybe* species and *Scleroderma* species, though we have no record of human deaths from these same species. We looked for mushroom poisonings of horses or cows. There were no poisonings recorded for these animals, though there were two poisonings recorded for a pig, including one death. We tried to answer a question for a woman from Oregon whose prize horse was healthy one day and dead the next. Her pasture was full of mushrooms. Her vet said that similar deaths of horses are not all that unusual. We hope that someone who reads this will become curious and some day have an answer of whether or not mushrooms are involved in these mysterious horse deaths. 🍄




President's Message

(continued from page 2)

Board has spent many, many hours in meetings, discussions, reviews and investigations into possible wrong doings. The Minutes of these investigations along with Markus' and other resignation letters will be made available and will be discussed at our Annual General Meeting. All questions from the floor will be addressed. At that time we will also have all our financial records available for examination by Society members. While the Board did not find any wrong doing per se they did have reservations about the way we keep and report our financial records. Efforts have been made to correct this. The Board has hired professional help to properly set up our book keeping so that we can better track all of our projects especially those which are connected to any grants. Jim Malenczak also resigned from the Board, on an unrelated work issue.

In this past year the manner in which we communicate with our members has had three strikes against it. **Strike one.** We have published only two scaled down versions of our newsletter. In past years we have most always published four editions. The reason for this is that we do not have a newsletter editor. Issues have been cobbled together piecemeal by executive members. On the positive side Geri Kolacz, our past editor, is still graciously doing our layouts, which means we still have the best looking newsletter in North America. We need one of our members to step up and take on this job or to at least chair a committee to look after this. This job is crucial to our club. **Strike two.** To make matters worse in the communication department, when Markus resigned we also lost our Web Master. For those of you who have visited our site lately you will see our site is not up to date. We require some significant work in this department as well, especially with our pending database launch. Do we have a Web Master out there or do you know of someone we could temporarily hire? **Strike three.** With Alan Fleming resigning from the Board and the membership chair is empty and we need a replacement there as well. Fortunately, Alan is still with us working on the database committee along with new committee member Mike Schulz. Alan did a wonderful job keeping members up to date on club activities and will be sorely missed in that role.

2008 was a year of great success and great challenges. As we move forward into 2009 we have some exciting new relationships forming and a very exciting year of events planned, the first of which will be the Annual General Meeting. On the challenging side we need a couple of members to step forward and take on some critical roles. It is your club and opportunity awaits.

 Acting President - Martin Osis

The last twenty years included many firsts and the following list contains a fair number of them. This list is not in any order - alphabetical or chronological.

-  The first issue of "the Stinkhorn" went out in October 1987. Editor Sean Abbott.
-  Leni Schalkwyk's book "Mushrooms of Western Canada" was published.
-  Our first website is setup January 2001.
-  In 2000 the Edmonton Mycological Club's newsletter is renamed "Spore Print".
-  In 1997 the Exotic Mushroom Banquet came to be and later was renamed The President's Dinner.
-  The Edmonton Mycological Club becomes a society and is renamed The Edmonton Mycological Society - December 6, 1994.
-  December 24, 2007 - The Edmonton Mycological Society becomes the Alberta Mycological Society.
-  Our first Annual Alberta Foray was held in 2005.
-  August 17-19, 2006 saw the Edmonton Mycological Society host the NAMA Foray in Hinton.
-  The EMS began to compile data for the database that would eventually have information on species found in Alberta - ongoing.
-  Annual President's Award Recognition- 2007.
-  First Annual Photo Contest - 2005.

AMS Calendar of Events for 2009

Please Join Us!!

All forays are undertaken at your own risk. You are responsible for transportation and accommodation.

March

- 20** **President's Dinner**
Location: NAIT, Ernest's Dining room
- 21** **Annual General Meeting**
Location: NAIT
- 22** **Polypore Foray**
Natural Region: Boreal Forest
Location: Edmonton: Whitemud Park North, access from Fox Drive

April

- 22** **Regular Meeting**

May

- 23** **Morels, Verpas and Spring Agarics**
Natural Region: Aspen Parkland/Boreal Forest
Location: St. Paul Grazing Reserve
- 27** **Regular Meeting**

June

- 20/21** **Volunteer Steward Commitment**
Natural Region: Lower Foothills
Location: Poplar Creek Natural Area Campout
- 24** **Summer Evening Foray**
Location: Edmonton River Valley
Location: TBA

July

- 18/19** **Summer Fungi**
Natural Region: Lower Foothills
Location: Bow Valley Provincial Park, Kananaskis
- 22** **Summer Evening Foray**
Edmonton River Valley
Location: TBA

August

- 1/2** **Mushroom Identification Course**
Natural Region: Foothills near Hinton
Location: Blue Lake
- 08** **Pre-Exposition Forays**
Natural Region: All Regions
Location: Your choice. Mushrooms to be collected for EXPO
- 09** **City of Champignons Mushroom EXPO**
Location: Devonian Gardens
- 20/23** **Alberta Foray**
Leccinum, Russula, Lacatrius and other Agarics
Location: Grouard, Northern Lakes College
- 26** **Summer Evening Foray**
Natural Region: Edmonton Area
Location: Devonian Botanic Gardens

September

- 05** **Leccinum, Russula, Agarics**
Natural Region: Foothills near Calgary
Location: Cochrane
- 11/13** **Foray - NFLD and Labrador**
Natural Region: Boreal Forest
Location: Central Newfoundland - Max Simm's Camp
- 12/13** **Foothills Foray**
Natural Region: Foothills
Location: Weald Provincial Recreation Area
- 23** **Regular Meeting**
- 25/27** **Chanterelles, Lobsters Galore!**
Location: The Fungi Festival, Shuswap, BC
- ### October
- 22** **Regular Meeting**
Mushroom Cooking Demonstration
Location: NAIT School of Catering
- ### November
- 26/29** **NAMA Annual Foray**
Location: Lafayette, Louisiana



General Member Meetings

Fourth Wednesday as listed above -

Time: 7:00 pm

Location: Riverbend Library

