

Next Meeting March 13<sup>th</sup>, 2006

# SPORES Afield

The newsletter of the Colorado Mycological Society

March 2006

## Presidents Column

By Norm Birchler



Welcome to the 2006 season of the Colorado Mycological Society. Hope you all had a great winter and are ready for some mushroom hunting.

I have been a member of CMS for about eleven years now and have been helping out the society for the last six years in various capacities, mainly as the editor of *SporesAfield* but also as the fair chair-person last year, a "City mushroom" display booth at the fair when the Salzman's are out of town, a helper at several fairs and leading and helping out on forays. I really didn't get to know anyone in the society until I started volunteering and that made a huge difference in the experience and enjoyment I get from CMS. I encourage each and every one of you to volunteer where you can and really start to learn about the mushrooms you find and make new friends in the process.

Here's a good way to start getting to know people in the society. The board of CMS has an issue that we need your help with. Last year an issue came before the board about advertising (e-mail or USPS) and the use of the CMS membership roster. Before the March 13<sup>th</sup> meeting the board would like to hear from CMS members to help us make a decision on what CMS policy should be.

*(Continued in column 2)*

## Topic of the March meeting:

### "Mushroom Stories"

You've all heard of fish stories. Well, mushroom stories are much better. Find out for yourself at our March 13 meeting when some of our club's most experienced mushroom hunters tell their favorite, real-life mushroom stories. You'll find out just how crazy, fun, and satisfying mushroom foraging can be. Panelists include: Chris Hardwick, Ellen Jacobson, Ed Lubow, Marilyn Shaw, and Bill Windsor.

Don't miss this unique evening of fungal storytelling.

*(Presidents continued from column 1)*

**Please see the related article on page 7 for more information.** Do you or do you not want to receive mail or e-mails on mushroom related topics? We need to know and welcome your input. Please plan on attending this special board meeting so your opinion can be heard.

The March meeting topic was suggested by long time member Ruth Davis, she wanted to hear about mushroom hunting stories that other CMS members have experienced, maybe some will be funny, maybe some will be harrowing, we will have to wait and see. There will also be time for you to share your stories. I look forward to seeing you at the March meeting.

Happy Hunting!

## Upcoming Events

- March 13<sup>th</sup> "Mushroom Stories"  
See page 1 for more information
- April 10<sup>th</sup> Chef Smailer from the Boulder  
Cork Restaurant
- May 8<sup>th</sup> CMS member Jeffrey Dann, will  
speak on the use of mushrooms in  
chinese medicine
- June 12<sup>th</sup> To be announced
- July 10<sup>th</sup> To be announced
- Aug. 12<sup>th</sup> Fair Setup
- Aug. 13<sup>th</sup> Annual CMS Mushroom Fair at  
Denver Botanic Gardens, The  
Fair identifier this year is Roy  
Halling of the New York Botanical  
Gardens.
- Aug. 14<sup>th</sup> Roy Halling, New York Botanical  
Gardens. Topic to be announced.
- Sept. 11<sup>th</sup> Cook & Taste, Chairperson  
William Windsor, contact him at  
wnwindsor@comcast.net. or  
303-544-6069  
**Note: this meeting will be held in  
Gates Hall**
- Oct. 9<sup>th</sup> Gary Lincoff on psychoactive  
mushrooms

Bring mushrooms for identification and display to  
any meeting.

All meeting are held at the Denver Botanic  
Gardens in Mitchell Hall at 7:30 pm unless  
otherwise announced.

## Welcome to CMS!

This is the first issue for 2006 of *SporesAfield*, the  
newsletter of the Colorado Mycological Society.  
The purpose of this newsletter is to provide a  
forum for members to share experiences, infor-  
mation, and insight on mushrooms of Colorado  
and the Rocky Mountains.

The Colorado Mycological Society is a nonprofit  
corporation established in 1967 to advance the  
understanding of, and to stimulate interest in, the  
field of mycology. Our members collect spec-  
imens for identification, preservation and study.  
CMS is affiliated with the North American My-  
cological Association (NAMA). CMS provides  
consulting services to the Denver Botanic Gardens  
and the Rocky Mountain Poison and Drug Center.

## Monthly Meetings

CMS meetings provide an informal opportunity  
to socialize and exchange information with others  
interested in mycology. Meetings are usually held  
the second Monday night of each month, from  
March through October, at 7:30 pm at the Denver  
Botanic Gardens, 1005 York Street, Denver, CO.  
The meetings are held in Mitchell Hall. There  
is no charge to get into the Botanic Gardens to  
attend the meetings. Members and visitors are  
welcome.

### *Spores Afield*

*Spores Afield* is published from March  
through October by the Colorado Mycological  
Society. CMS dues are \$23 for the first year  
and \$20 thereafter. Send membership dues to  
CMS Membership Chair, Box 9621, Denver,  
CO 80209. All CMS members receive *Spores  
Afield* as part of their membership.

CMS is an affiliated member of the North  
American Mycological Association.

CMS web site: <http://www.cmsweb.org>

## CMS Officers for 2005

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<b>CMS Forays</b>	Tom Ruzicka 303-447-2740 tomruzicka@mindspring.com
<b>Toxicology</b>	Marilyn Shaw 303-377-1278 marihshaw@aol.com

**This year our Foray Chair is Tom Ruzicka.  
Please contact Tom if you would like to lead a  
foray**

## Other Society Activities

### Forays:

When the mushroom season gets going, mushroom forays are led by experienced members of CMS to different locations around the state. We usually hold forays on Saturday and Sunday. These forays are limited to members only. Forays are probably the best way to learn to recognize different kinds of mushrooms.

### Mushroom Fair:

A mushroom fair is held each year in August at the Denver Botanic Gardens. August is the height of the mushroom season in Colorado, and members from around the state bring in a large variety of mushrooms for identification and display. The fair is open to the general public on Sunday. It is a great time to learn about mushrooms!

### Resources:

CMS offers free use of the mycology reference library to CMS members. Please contact Julie Holmes at 303-569-2681 to check out a book or to find out more about the collection.

### Books For Sale:

We also offer a variety of books for sale at each meeting. The books are usually available to members at a discount.

### CMS Web site

CMS is on the World Wide Web at: <http://www.cmsweb.org>. The web site is full of information on the society's events, forays, and links to other sites in an easy to use format.

## 2005 CMS Fungi Feast

### "Excellent"

By Norm Birchler

On Sunday October 23<sup>rd</sup> 2005 the Boulder Cork Restaurant hosted the annual CMS "End of the Season Fungi Feast" for the 9<sup>th</sup> consecutive year. The chef of the Boulder Cork is Jim Smailer, if you look back at your October 05 *SporesAfield* you can read his impressive bio. He gave a wonderful lecture at the Oct. 05 meeting unfortunately because of a fall blizzard the Denver Botanic Gardens closed early, only allowing CMS in for our meeting which was sparsely attended. We have asked Chef Smailer back for the April 06 meeting so more people can enjoy his interactive lecture.

The well attended dinner featured 10 different types of mushrooms from all over the world. The list of mushrooms consisted of:

15 lbs. of wild *Cantharellus cibarius*, common name Chanterelle from Oregon.

2 lbs. of wild *Tricholoma magnivelare*, common name Matsutake from Northern California.

3 lbs. of wild *Hydnum repandum*, common name Hedgehog from Europe.

3 lbs. of wild *Laetiporus sulphureus*, common name Sulfur Shelf from Oregon.

3 lbs. of wild *Craterellus cornucopioides*, common name Black Trumpet from Europe, my personal favorite.

3 lbs. of wild *Sparassis crispa*, common name the Cauliflower mushroom from Oregon

10 lbs. of cultivated *Lentinula edodes*, common name Shiitake from the USA.

3 lbs. of wild *Cantharellus tubiformis*, common name Yellow Foot from Europe.

3 lbs. of cultivated *Pleurotus eryngii*, common name Royal Trumpet from the USA.

3 lbs. of wild *Lyophyllum decastes*, common name Fried Chicken mushroom from Oregon.

You can look back at the August 05 issue and see what dishes were prepared with these mushrooms. The dinner was excellent with lots of good conversation. I don't know of anyplace that you can get this variety for mushrooms in a single meal.

Another fun thing was Chef Smailer auctioned off the extra mushrooms that did not go into the meal, probably 10-15 lbs of mushrooms at well over \$100 in value. William Windsor and I pooled our money and were the highest bidder. We shared them with a few people and I had two more days of mushroomy meals.

Be sure to watch for the announcement in an upcoming edition of *SporesAfield* for the menu and date of the 10th anniversary of the CMS "End of the Season Fungi Feast".

## Membership Dues are Due

If you have not paid your CMS dues for 2006, please pay as soon as possible. If you are not sure if you have already paid, check your membership expiration date in the upper right corner of the mailing label of this issue. To renew your membership, send a check for \$20 and a note to:

Linda deLeon  
CMS Membership Chair  
14310 W. Fifth Ave.  
Golden, CO 80401-5226

(Note: New membership is \$23)

If you have any questions as to the accuracy of the expiration date on the label or change of address, please contact:

Linda deLeon  
14310 W. Fifth Ave.  
Golden, CO 80401-5226  
ldeleon@comcast.net  
303-278-9582

# Robot moved by a slime mould's fears

Reprinted from  
NewScientist.com news service  
By Will Knight  
13 February 2006



A bright yellow slime mould that can grow to several metres in diameter has been put in charge of a scrabbling, six-legged robot. How far will building robots around life forms go?

The *Physarum polycephalum* slime, which naturally shies away from light, controls the robot's movement

so that it too keeps out of light and seeks out dark places in which to hide itself.

Klaus-Peter Zauner at the University of Southampton, UK, who developed the slime-controlled bot with colleagues from Kobe University in south-central Japan, says the idea is to find simpler ways to control a robot's behavior.

"The computers we have today are very good for what we built them for," he told New Scientist. "But, in a complex or paradoxical environment, things tend not to work out."

*Physarum polycephalum* is a large single-celled organism that responds to food sources, such as bacteria and fungi, by moving towards and engulfing it. It also moves away from light and favours humid, moist places to inhabit. The mould uses a network of tiny tubes filled with cytoplasm to both sense its environment and decide how to respond to it. Zauner's team decided to harness this simple control mechanism to direct a small six-legged (hexapod) walking bot.

## Mechanical embodiment

They grew slime in a six-pointed star shape on top of a circuit and connected it remotely, via a computer, to the hexapod bot. Any light shone on sensors mounted on top of the robot were used to control light shone onto one of the six points of the circuit-mounted mould – each corresponding to a leg of the bot.

As the slime tried to get away from the light its movement was sensed by the circuit and used to control one of the robot's six legs. The robot then scrabbled away from bright lights as a mechanical embodiment of the mould. Eventually, this type of control could be incorporated into the bot itself rather than used remotely.

Zauner believes engineers will need to look towards this type of simple control mechanism, especially as components are scaled down. "On the nanoscale, we have to learn how to work with autonomous components," he says. "We have to let molecules do what they naturally do."

## Available energy

Biology is already influencing the evolution of robots in other ways. For example, researchers led by Chris Melhuish at the University of the West of England in Bristol, UK, have developed robots that generate power by consuming flies.

"Computational autonomy has been studied for some time," says Ioannis Ieropoulos of the University of Western England team. "For a truly autonomous robot, the level of computational complexity will depend on the available energy."

Details of the slime-bot project were presented at the Second International Workshop on Biologically Inspired Approaches to Advanced Information Technology, held in Osaka, Japan, on 26 and 27 January

# Mycology: The whiff of danger

Reprinted from  
News and Views  
Nature 437, 1248 (27 October 2005) | doi:  
10.1038/4371248a  
By Tim Lincoln



You don't take the death cap (*Amanita phalloides*) home for tea. This species, pictured here, is infamously poisonous, with many other mushrooms being toxic to a greater or lesser degree.

Thomas N. Sherratt,  
David M. Wilkinson  
and Roderick

S. Bain have addressed two issues raised by the existence of poisonous mushrooms (*Am. Nat.* doi:10.1086/497399). The first question was what purposes possession of poisons might serve in mushrooms. One possibility is that toxins are simply a metabolic by-product. Another that has been suggested by several authors is that they act as a deterrent to predators, which might otherwise destroy the mushroom before its spores have matured and dispersed. Fungus-loving vertebrates could in particular be highly destructive.

An evolutionary principle is that if you as an organism go to the bother of being unpalatable, you might as well signal that fact. Does this apply in mushrooms? To investigate this second issue, Sherratt et al. turned to data compilation and neural-network analysis. They made use of modern evolutionary trees to judge the incidence of poisonousness in mushrooms, then analyzed data sets, culled from field guides, to see whether poisonous species tend to have particular ecological correlates — whether, for instance, they are more colorful, more aggregated or have a more noticeable odor.

Overall odor (and not cap color) came out as the best predictor of toxicity, a result that was supported by pair wise comparisons of related poisonous and edible forms. Given that many animals forage by night, and that nocturnal mammals tend to have relatively poor color vision, the authors suspect that odor provides the more effective signal.

Sherratt et al. make plain that their study is correlative only, and that — for them and others — this is a work in progress. There is rich scope for further investigation of the hypothesis that poisonous mushrooms use odors as warning signals, and of the likely exceptions.

## For Sale:

A set of rare books on perhaps the most fascinating of all mushrooms, the hallucinogens of Mexico by Gordon Wasson.

Maria Sabina and her Mushroom Velada, first edition, leather and linen bound. Boxed with 4 LP records of the chants and their transcripts. This is the documentation of Wasson's 1958 expedition into the Mazatec region of Oaxaca, Mexico.

The wondrous Mushroom, signed, first edition, boxed, leather and linen bound. Theories on the influence of hallucinogenic mushrooms on pre and postcolonial Mesoamerican indigenous culture. These beautiful books were very limited editions of exceptional quality. They are examples of the highest level in the craft of European bookbinding. They are in excellent condition. A mycological treasure. Offered at \$ 4000.00 Contact Sam Lemly at 303-987-2952.

# Membership Notice of Policy Discussion Regarding Commercial Use of Membership List

By William Windsor

Greetings Members:

The Board of Directors will be reviewing CMS policy regarding the use of our membership list for commercial purposes. Members are invited to voice their opinion on the issue either prior to, or at the next Board Meeting scheduled for March 13, 2006 at 6:00pm in Mitchell Hall at the Denver Botanic Garden. Up until 24 hours before the Board meeting, you can send your opinion on the matter to Bill Windsor at [wnwindsor@comcast.net](mailto:wnwindsor@comcast.net) or mail it to Bill Windsor, 735 20th St., Apt. #3, Boulder, CO 80302. At the Board Meeting there will be a scheduled time period for member comments for members who may wish to attend the meeting. Each individual comment period is limited to 3 minutes at the meeting in order to allow time for other Board business discussions. Please review the outline of the issue below.

**Purpose** - In the past few years we have experienced an increased use of the CMS roster for commercial use. This has included members being placed on email advertising lists and hard copy mailings to member's homes. Two years ago, the Board set a policy that the CMS roster was not to be used for commercial purposes, even if the 'product' was mushroom related. When this policy was enforced last year it resulted in an email debate in which comments from members were nearly evenly divided in support and in opposition to the policy. In response to this debate the Board of Directors have decided to 'revisit' the policy and establish a clear written outline of CMS policy in regards to commercial use of the roster.

**Outline** - The membership roster is designed as a contact list for members to be able to reach each other for private use communication. There is

a clear and distinct difference between private communication and commercial solicitation. The CMS roster can potentially be 'abused' for (A) Mass Mailings through the US Mail; and (B) Telephone Marketing; and (C) Email Solicitations. These solicitations can additionally be broken down to being (1) Mushroom related; and (2) Non-Mushroom related.

**Current Policy** - CMS currently forbids all commercial use of the CMS roster. Mushroom Festivals and events are listed for free in the Spores Newsletter and CMS Web Site. Event Organizers, CMS Members and Commercial Businesses are not allowed to use the CMS roster to contact members on US Mail, Telephone and Email Lists for the purpose of soliciting business.

**Considerations** - A significant number of members have expressed that they would desire to receive commercial solicitations if the solicitations were mushroom related. A slightly larger number of members have expressed that they do not want to receive any commercial solicitations. An important consideration is the matter of action and responsibility. For example, should a member be responsible to take an action to place themselves on a Mailing, Telephone or Email List, or should a member be responsible to take an action to remove themselves from a Mailing, Telephone or Email List. Under the current policy, the Board has voted that a member should NOT have to take an action in order to REMOVE themselves from a Mailing, Telephone or Email List, and that those members who desire to be on such lists should take an action to place themselves (and only themselves) on a given mailing list.

A related discussion and policy needs to be derived regarding the CMS website and links to commercial sites. Members are invited to comment on this issue as outlined above.

## **Authors, Artists, and Poets**

The editor of *SporesAfield* needs your help. Please consider submitting an article, line drawing, digital photographs, a poem, editorial, comic, report on mushroom sightings, news items, announcements of upcoming events, or any other contributions to your newsletter. This is your chance to share with your fellow members. Send items by the 15<sup>th</sup> of each month to:

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