

Next Meeting, August 12th 2002

SPORES Afield

The newsletter of the Colorado Mycological Society

August 2002

The CMS Mushroom Fair is Sunday, August 11th. Bring this issue of Spores or your membership card.

Step right up! There are still plenty of activities to take part in to help pull the Fair together. For newer members a brief review of the process is in order. (OK, you experienced members can read this, too.)

First, start doing those rain dances! Then, a few days before the Fair, begin collecting. Conditions permitting, there will be a foray with Dr. Jack States on Fri., Aug. 9. Meet at the usual place at the usual time. Best to call if the drought continues to be sure it is still on. See the article in this issue (page 6) on how to collect to keep those beautiful specimens in prime condition. Don't just heap them all together in a box or basket. We sometimes have to discard whole collections because they are too dirty and broken to use. Also, our identifiers need information about habitat in order to properly name species, so be sure to have as much info as possible with each of your collections. Some will be new to our Fair, and some might even be brand new species.

Specimens need to be refrigerated after collecting.

Bring your collections to the Gardens on Saturday afternoon, if possible, or on Sunday morning.

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Speaker for the August Meeting: Dr. Jack States

"Mystery and Magic of Mushrooms in the Rocky Mountains"

The avid mycophagist is well acquainted with the magical phenomenon of "now you see 'em, now you don't" associated with search for mushrooms. Beyond common knowledge that moisture and warmth are essential for fungal fruiting, an understanding of the varied biological roles that fungi play in forest habitats helps explain the incredible biological diversity of fungi in the Rockies, and more importantly, assists in their identification, solves the mystery of when and where they will occur, and even determines whether they can be grown artificially. Can the great mystery of why some are poisonous to humans and others are not also be explained?

Using photographic illustrations and graphics, the talk will focus on some of the new classification schemes proposed in mycology, and the resulting surprises/nightmares? in species identification faced by professional and amateur mycologists alike.

Dr. States taught biology and mycology at Northern Arizona University, Flagstaff for 25 years, now retired as Emeritus Professor of Biology, and Adjunct Professor of Botany at University of Wyoming, Laramie. Author of a field guide, "Mushrooms and Truffles of the Southwest" Univ. of Arizona Press 1990. (Available in our library)

(Continued on page 3)

Upcoming Events

- Aug. 9th** Foray with Jack States, collecting for the mushroom fair
- Aug. 10th** Mushroom fair setup
- Aug. 11th** Annual **CMS Mushroom Fair** at Denver Botanic Gardens
- Aug. 12th** Speaker: Jack States, "Mystery and Magic in Mushroom Identification: Will the REAL *Boletus edulis* please stand up"
Please note: Held in Gates Hall See, "Fair Facts" page 3
- Aug. 16-18** Crested Butte Wild Mushroom Festival Weekend
- Aug. 22-25** 21st Annual Telluride Mushroom Festival
Call: 303-296-9359
Write: Fungophile
Box 480503
Denver, CO 80248-0503
- Sept. 9th** Speaker: Nancy Smith Weber, "Morels"
- Oct. 14th** Speaker: Terri Jensen and Karen Aguiar, "Medicinal Mushrooms"
- Nov 3rd** End of Season Fungi Feast

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 associate member of the North American Mycological Association.

CMS website: <http://www.cmsweb.org>

Upcoming Forays

Important Notice: Due to the ongoing weather conditions please call the foray leader to confirm the foray is going as scheduled. The forays meet in the northeast parking lot of I-70 and Morrison Road, Exit 259, also known as the "T-Rex" lot. Meet in the parking lot about 15 minutes early and be sure to check in with the foray leader and fill out a release form. At that time the location will be announced. Car-pooling is highly recommended from this point because most foray locations do not have enough parking for a large number of cars.

- Aug 3rd** Foray with Tom Ruzicka. Meet at the usual place, 8:30 am. Contact Tom at; 303-447-2740
- Aug. 4th** Foray with Jon Sommer has been **Canceled**
- Aug. 9th** Ellen Jacobson will lead a foray with Jack States. Meet at the usual place at 9:00 am. The foray is to collect for the Fair and not for edibles. Jack is a wonderful teacher and an expert on Colorado "truffles" and hypogeous fungi and will be looking for same. This is a terrific chance to meet and collect with our chief identifier. Contact Ellen at: 303-741-3836
- Aug.17th** Ed Lubow has agreed to lead a foray. Meet at the usual place at 9:00 am.
Contact Ed at: 303-744-9120
- Aug. 24th** Tom Taggart will lead a foray into the foothills west of Denver. Meet at the usual place at 9:00 am. Contact Tom at: 303-423-5317
- Sept. 7th** Larry Renshaw will lead a matsutake foray into the foothills west of Denver. Meet at the usual place at 9:00 am
Contact Larry at: 303-648-0048

(Mushroom Fair Continued from page 1)

Dr. States, Vera Evenson, Ellen Jacobson and other members will be working hard to identify and record as many species as possible. We usually have over 200 species at a typical Fair.

An important word about getting into the Gardens to help. Please bring your August issue of Spores with your up-to-date mailing label on it or your membership card and show this for free admission. We plan to have an updated roster at the gate, too, so be sure your membership is current.

On Saturday afternoon, Mitchell Hall will be set up to sort and identify mushrooms. Not pretty, but efficient. Lots of hands and feet are needed to simply carry mushrooms around and get them to the right place at the right time. Work continues from about 1:00 pm to 5:00 pm or 6:00 pm. You'll be amazed at how much more you know at 5:00 pm than you did at 1:00 pm.

The big push begins at 8:00 am Sunday morning. By 11:00 am Mitchell Hall will be magically transformed into the colorful Fifth Kingdom of Fungi and the gates will then be flung open to the public. When it is a good mushroom year this is one of the Garden's busiest Sundays.

Our Mushroom Fair is now an institution. People tell us they look forward to it and come every year. The benefit to the public is great, but it is, perhaps, even greater for our own members. It is the most rewarding and fun thing we do all year. Don't miss being a part of it!

(Speaker Continued from page 1)

Dr. States coauthored a recent series of published papers on the Hypogeous Mycoflora of the Great Basin. His current research is on the ecology of biological soil crusts in the Inter-Mountain region and authored a chapter in a just published book on soil crusts.

Important Notice: This lecture will be held in Gates Hall.

Location: In the same building as always but continue past the door to Mitchell Hall and past the fountain, the door to Gates Hall is in the next open hall on the left.

Spores Afield

Fair facts:

Fair Location: Mitchell Hall at the Denver Botanic Gardens

Fair Date & Time: August 11th, Gates open at 11:00AM

Fair is free to members if:

Please bring your August issue of Spores with your up-to-date mailing label on it or your membership card and show this for free admission.

Volunteers Wanted for Saturday and Sunday:

There will be plenty of opportunities to help, no special knowledge is needed. Call either the Fair Chair, Jae Lucas, 303-697-4417, President, Tom Ruzicka, 303-447-2740 or Editor, Norm Birchler, 303-440-7123 to let them know you will help, or just show up and get an assignment.

If you have expenses (purchasing sod, for instance, for the City Mushrooms display) be sure to keep your receipts and turn them in to our treasurer for reimbursement. Just note what the items were and that they were for the Fair.

All volunteers should check in at the gate as members of the Mushroom Fair and they will be given free access. Bring a sack lunch or plan to buy something at the Garden's food cart. Additional coolers will not be needed, we are able to use the refrigerators this year.

ARTS AND CRAFTS DISPLAY

If you have any items with a mushroom theme, please bring them in early Sunday morning, then be sure to pick them up after the Fair closes. This is a display, only. No sales are permitted.

For more information related to CMS, contact:

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Scientific names can be friendly, too

By Ed Lubow

I know that when I first started identifying mushrooms, the names of the mushrooms in the books I used (my first book was Dr. O.K. Miller's *Mushrooms of North America*) seemed to be difficult. Instead of memorable and descriptive names like "Blue Spruce" or "Subalpine fir" I was confronted with names like *Boletus edulis* and *Lactarius deliciosus*. While *Boletus edulis* is an improvement over the plethora of common names (King Bolete, Steinpilz, Cepe, Porcini, to name a very few), how could I ever hope to remember more than a few of these names? Hopefully this article will help somebody along the path I chose, which was learning enough Latin and Greek roots to make the descriptive names descriptive. An excellent reference is in the back of David Arora's *Mushrooms Demystified*. It is also worth noting that Vera Evenson's *Mushrooms of Colorado* includes English "translations" of all the species names in the book.

Honestly, I don't think that most genus names are all that descriptive. *Boletus* basically means "group of superior mushrooms", and *Agaricus* just means "group of mushrooms", while *Lactarius* at least includes the root lact- which refers to milk. Fortunately, the majority of mushrooms most of us are interested in fall into a handful of genera, so remembering those isn't too awful.

When we get to descriptive specific names, the mycologists have mostly done a good job. While *Boletus edulis* (edible) and *Lactarius deliciosus* (delicious) don't help me identify the mushroom, at least *edulis* resembles "edible" and *deliciosus* resembles "delicious".

Remember that much of English is derived from the same roots as these Latin and Greek derived names are. Think of English words which are similar and you are likely to find words from the same roots which will give you the correct meaning. Many of the words, unfortunately, are techni-

cal or not in everyday use, but you can also think of this as an opportunity to improve your English vocabulary. When there aren't English words, you can just try to remember the root.

Rather than drone on endlessly, here are some examples. Once you start learning these, there gets to be a cascade effect where you hear a new name and can give a partial description of the mushroom, even though you've never seen one.

(*Hygrophorus*) *conicus* conic (cone shaped)

(*Russula*) *decolorans* color (de-coloring - fading or changing colors)

(*Russula*) *emetica* emetic (medicine which induces vomiting - obviously, don't eat these)

(*Russula*) *xerampelina* xer- (prefix meaning dry), ampel (grapevine) (dry wine colored cap)

(*Russula*) *brevipes* brief (short), pedestrian (-ped, foot) (short foot/stem)

(*Collybia*) *butyracea* butyraceous (resembling butter) (the cap is slimy, like butter)

(*Flammulina*) *velutipes* velour (a velvety fabric), pedestrian (-ped, foot) the stem is velvety

(*Marasmius*) *oreades* oread (a mountain nymph) they grow in fairy rings

(*Tricholoma*) *saponaceum* saponaceous (resembling soap) these usually smell like soap

(*Cortinarius*) *violaceus* violet these mushrooms are intensely violet colored all over

(*Panaeolus*) *semiovatus* semi- (half), ova (egg) the cap is shaped like half an egg

(*Psilocybe*) *coprophila* coprophilia (marked interest in dung) these grow in dung

(*Agaricus*) *xanthodermis* xanthoderma (yellow skin color) the mushroom bruises yellow

(*Chroogomphus*) *vinicolor* vinic (relating to wine), color the flesh is wine colored

(*Suillus*) *tomentosus* tomentose (covered with densely matted hairs) the cap is hairy

Bountiful Harvest

By William Windsor

One of my most memorable forays took place on a cool late summer morning just north of Tucson, Arizona. At the time I lived in the small town of Summerhaven on top of Mount Lemmon. About a week before this morning I had collected Chantrelles and Hedgehog mushrooms with my daughters. These mushrooms fruit in mid September on Mt. Lemmon and typically mark the end of the mushroom fruiting season.

On this morning, I was commuting to my office in downtown Tucson on my Motorcycle. Although it was light out, the sun had not yet climbed above the Rincon Mountains to the east. Spotting an area that looks like a good habitat for schrooms, I pull over just past Willow Canyon. As I lock up my motorcycle, I remove a paper bag from my briefcase. Now to you folks who foray for fruiting fungi, that last sentence makes perfect sense. Just about everyone else will not understand why a briefcase would contain a supply of paper bags.

There is no path here, instead I wander uphill into the forest while absorbing the morning sights and sounds. It is still early enough that the birds are vocalizing their territorial claims. A lone raven passes overhead and shouts at my intrusion. I return its call in brotherhood. I don't know why I do this, I just do. OK, its true, mycophiles are just a bit...ummmm, ...different. I pass a grove of tiny plants with even smaller pink flowers. I have to kneel down to see them clearly. Cool! I get up and walk slowly, constantly scanning the ground.

After a short while I come to the crest of a hill which is covered with huge boulders. I look up and weigh the return-to-effort ratio as I contemplate a scramble to the top. I decide to make the climb and eventually emerge above the tops of the nearby trees. A view of east Tucson opens before me as the rock face drops hundreds of feet just in front of my shoes. I am on top of the world. A light wind blows in across the Tucson basin and

with views unbroken in every direction I feel like I have taken flight. I lift my arms and have a remarkable sensation that the entire world is attached to my feet.

Far, far below, a few hundred thousand people are beginning their day. Not one of them can see me on this boulder, a man flying alone with the earth tethered to his feet. A flash of light over the Rincon Mountains commands my attention. It is the sun and I have carried the earth to meet it. Warm beams of brilliant gold light play across my face. This light of life is still invisible to the city dwellers below and it will take another 15 minutes or so for it to make its way into the valley.

I linger for a moment savoring the feelings of flight and of warmth, then slowly walk back to my motorcycle. All the while, I continue to scan the ground for mushrooms. I do not find a single fruiting body, but I make a mental note to return to this area next late next summer. It has nice open glades of Ponderosa Pine cut with shallow drainages, a perfect environment for Boletes.

I arrive back at my motorcycle and return the paper bag to its place in my briefcase. Firing up the bike I pull onto the twisty mountain road. A smile crosses my face with the realization of having gathered a bountiful harvest without finding a thing.

Send me Articles:

I'm always looking for material for the newsletter and my goal is to have the full 7-8 pages each issue. The best stuff comes from our own members; foray leaders how about a short trip report, anyone find something interesting the last time you were out? Been to a good restaurant that served a dish other than the usual *Agaricus*, tell us about it! I'm sure there are a lot of good ideas out there, write up a short or long for that matter article. Please send in a poem, article, or recipe by the 20th of each month and I will try to get it in the next issue (room permitting). Announcements that must make the next issue should be in by the 15th of each month.

Bring 'em back alive!

Some suggestions for collecting mushrooms for further study and identification.

From the Herbarium of Fungi at the Denver Botanic Gardens.

When you find a mushroom that you want to show to an expert for identification (and possibly have it preserved for further study), here are some reminders:

Collect only fresh, moist, whole specimens. Unless you believe it to be very rare or unusual, do not bring in a "single-one". Try to get buttons along with other young to mature individuals. Use good collecting techniques, getting base of stipes. Brush dirt off lightly and make sure too much dirt doesn't damage the specimen.

Make a few notes on a small piece of paper to include with the specimen, record habitat, and a sprig or leaf of host plant or tree in with the specimen as a reminder. If the mushrooms are small and in moss or other bryophytes, leave that plant material around the specimen to help keep it moist. If possible, write down obvious features that might disappear, such as veil attachment, colors, odor, or taste. Make a note where you found the mushroom.

Put specimen in a container, using a firm container for small, delicate specimens and waxed paper for larger ones. Keep each collection separate from other kinds. Place it in a firm container such as a cottage cheese box or other small, lidded box (if the mushrooms are small). We find compartmented boxes used by fly fishermen excellent. Place a piece of damp paper towel in the bottom to keep the specimens moist. Desiccated specimens are hard to identify.

Make a spore print for assessment of spore color to help with identification. Slip a piece of white paper under the gills. By the time you get home, you may have a usable print if you arrange the paper just below the gills. RosaLee uses the shiny side of freezer paper.

A few "do not" suggestions:

Do not freeze or wash or put specimens in water.
Do not leave specimens in a hot car. Refrigerate or put in a cooler.

Do not collect specimens in plastic bags. They sweat!

If you give a properly collected specimen to an expert (or bring it in to the Fair in August), your specimen may be preserved "in perpetuity" for science! We at the Herbarium are always grateful for your contributions. You may bring us a new Colorado record, or a new species! We have hundreds of great specimens (and some very rare ones) donated by members of CMS. Come see them!

By: Vera Evenson, Curator
RosaLee Brace, Volunteer

For sale: mushroom growing equipment

11 - 941 All American pressure cookers	\$200 each
2000 - Narrow mouth jar lids plastic/metal	\$0.10 each
2 - Scalpel sterilizers,	
1 gas	\$200
1 electric	\$200
1 - Quart Ebebach liquid vessel and blender. (Never used)	\$400
2 - 18" bag sealers for "Space bags"	\$100 each
1 - 20,000 BTU industrial gas burner propane	\$100
2 - 99.99 HEPA 1' filter boxes	
1 with fan	\$200
without fan	\$100
1 - 8' 2 bulb Vapor proof 160 watt light	\$150

Contact: Trace 303-743-3513

Tired of this life? Then try the Telluride Mushroom Festival

Gathering of mushroom hunters slated for Aug. 22-25th.

Highlights: Mushroom Forays, Lectures, "Shroom Parade," and Feast

The annual Telluride Mushroom Festival—designed for people interested in edible, psychoactive, and poisonous wild mushrooms—will be held in Telluride, Colorado, Aug. 22-25th.

The festival features mushroom lectures, forays, hands-on identification and cultivation workshops, and a mushroom feast. There's even mushroom poetry and a mushroom parade—down the main street of Telluride.

Experienced guides will lead daily fungus forays in the forests surrounding Telluride, generally productive of a wide variety of wild mushrooms, particularly edible species, like chanterelles and porcini.

Nationally recognized authorities on mushrooms will present lectures and workshops:

Dr. Andrew Weil, author of the bestselling book *Spontaneous Healing*, on "Mushrooms and Health;" Gary Lincoff, past President of the North American Mycological Association, on "Wild Mushroom Identification;" Paul Stamets, President of Fungi Perfecti (www.fungi.com), on "Medicinal Mushrooms;" Dr. Emanuel Salzman, Coeditor of *Mushroom Poisoning*, on "Mushroom Poisoning;" John Corbin, Cultivation Specialist, on "Growing Mushrooms on Straw;" Dr. Lynn Margulis, Distinguished Professor, University of Massachusetts, on "The Secret Life of the Fungal Underground," U.S. District Judge John L. Kane, Jr., on "The War on Drugs: An Impossible Dream;" and Dr. David Grinspoon, author of the forthcoming, *Lonely Planets: The Natural Philosophy of Alien Life*, on *Psychedelic Mushrooms and Alien Life*."

For information about registration and fees, check out www.telluride.com/mushroom.html or contact:

Fungophile
Box 480503
Denver, CO 80248-0503
Tel/FAX: 303-296-9359

Based in Denver, Fungophile has sponsored the Telluride Mushroom Festival for 21 years.
www.telluride.com/mushroom.html

Other Society Activities

Classes:

Classes in beginning mushroom identification are offered periodically. CMS sometimes sponsors classes on growing edible mushrooms, mushroom photography and other subjects.

Classes are occasionally available through the Denver Botanic Gardens and Rocky Mountain Natural History Association.

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!

CMS Library

CMS has an extensive library of mushroom books available for all members to check out. Our library is located at our Vice President's home in the Denver area.
Chris Hardwick 303-237-0356

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.