LOST AND FOUND

Henry Pavelek

[ANTS CURRENT NEWS, No. American Truffling Soc.]

We believe it is desirable to periodically call to the attention of our members the precautions that should be taken to keep from getting lost in the woods while on forays. Lost people not only spoil an otherwise good day for themselves but also create considerable anxiety for everyone participating in the event.

We often operate in rugged country where it is easy to become disoriented. We also have forays in areas that are not familiar to us. Anyone not adequately prepared for the variety of conditions that exist in a foray area can get lost. In some relatively flat woodland sites, everything may look the same so it is difficult to orient oneself.

Even well-known and respected pioneers such as Daniel Boone had problems on occasion since he operated without many of the tools available to us, such as maps, man-made roads, and fences. A friend, familiar with Daniel Boone's adventures and exploits, one day asked him if he had ever been lost. Boone stroked his chin and thought for sometime before replying, "Well, no, but I can remember a time in the mountains when I was mighty confused for about three days."

A problem that may be even greater than getting lost is becoming injured. Many conditions exist in forested areas that can lead to injuries. To cope with this and the problem of being lost, it is well to stay close to others, at least in pairs. Keep in sight, or at least in hearing distance of them. One should wear proper clothing for the area, including footwear that adequately protects the ankle from injury. Boots, covering the leg up to midaft, are especially important in areas having rattlesnakes.

Some of the tools that should be carried are a compass, a whistle for contacting others, a map of the area, a good knife, and matches and paper for starting an emergency fire (your wax specimen bag will do in a pinch).

Start out by locating where you are on the map and study the direction of the existing roads and the direction of the flow of streams, as well as other map features.

If a map of the area is not available, study the landscape in the direction you will be going to orient yourself. Before leaving the car, take a compass bearing on the general direction of the road and the general direction that you will be going. You need only to reverse your direction to get back to the starting point.

As you travel, watch the terrain closely so...
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Calendar
Nov. 7 Beginners' class, 7:00-9:00 p.m., CUH
Nov. 8 Membership meeting, 7:30 p.m., CUH
Nov. 14 Beginners' class, 7:00-9:00 p.m., CUH
Nov. 14 Board meeting, 7:00 p.m., CUH
Nov. 15 Intermediate seminar, 7:00-9:00 p.m., CUH
Nov. 18 Spore Prints deadline
Dec. 5 Spore Prints mailing, 10:00 a.m., CUH

FORAYS WORKSHOPS RETREATS

Study Tour: Gary Lincoff, Andrew Well, and Emanuel
Salzman will lead a mushroom and wildlife study tour
of Madagascar from April 13 to April 28, 1989, with a
7 day post-tour extension to Mount Kilimanjaro. For
details, contact Fungophile, P.O. Box 5503, Denver,
CO 80217-5503 Tel: (303) 296-9359.

Stamets Workshop: Paul Stamets has offered 10% off
to all PSMS members who attend his mushroom cultivation
workshop on December 3 and 4. See the September
1988 Spore Prints or call (206) 426-9292 for details.

North Coast '88: The Mycological Society of San Francisco
invites members of other clubs to the Second
Annual North Coast Retreat on November 25 through
November 27. Reservations are needed by November 11.
Call (415) 387-3108 or write MSSF c/o Jerome Rainey,
1830 Page St. #B, San Francisco, CA 94117

Died: Rudolph Werth on August 24th of leukemia.
Rudy was a PSMS member for 18 years.

Died: Marcus M. Ohlson, charter member #91, on
September 21st. Our sympathy to his wife, Lois.

Died: PSMS member Bill Burnett Williams, 67.
Our sympathy to his wife, Ioleen.

Membership Meeting
Tuesday, November 8, at 7:30 p.m. in the Center for
Urban Horticulture, 3501 N.E. 41st Street, Seattle

Brian Luther's subject is "The Fascinating World of
Fungi on Antique Postcards." We are glad to have him
back. He told us about mushroom postage stamps last
November in a talk that has been repeated and widely
praised around the Puget Sound area. Brian has been
an enthusiastic, active PSMS member since his under-
graduate days at the University of Washington. His
special interest is taxonomy; he heads our i.d. com-
mittee and is a Pacific Northwest Key Council member.

SAVE THE RUSSULAS
Gregg Ferguson
[Mycological Society of San Francisco Mycena News]

Russula, usually preceded by "just another,"
is a large group of fleshy fungi with few
admirers. No other group of mushrooms is
so disliked and abused.

When I first started studying mush­
rooms, Russulas were a group I could
always count on finding every sea­
son. Many were brightly colored and
conspicuous. Others were dullest and
often hidden. All were a treat to
find and to photograph.

When I started associating with fellow fungophiles, I
was assured that all mushroom hunters acquired a
taste for stomping Russulas. I was shocked to hear
that these otherwise loving people admitted to de­
stroying any mushrooms for any reason. However, as I
picked a few years of hunting under my belt, I became
enlightened on the just causes of stomping Russulas.
I've hunted for matsutake in Manzanita thickets so
dense that rabbits lose fur scurrying through them.
I've crawled on my stomach 30 feet to uncover "just
another Russula" in those thickets. After finding
"just another Russula" once too often, I, too, shame­
fully admit to stomping and kicking my share.

It's not that I hate Russulas; I don't think of any
of us do. I think that when you're having a bad day
hunting, you need something you can release your ag­
gression on. If you have the choice of kicking your hunting partner(s) or a mushroom, any decent person
will kick a Russula. It is said that everything on
earth has a purpose. It just may be that God intend­
ed Russulas as therapy for us mushroom hunters.

I still have a strong affection for Russulas. I still
enjoy finding them (as long as I don't think
they are some other mushroom). I still enjoy photo­
graphing them, and I now enjoy eating a few varie­
ties. Russula xerampelina is an excellent edible.

I suppose this story is my attempt to win the Russu­
as some sympathy. They have been abused long
enough! So the next time you're in the woods and you
get the urge to stomp another Russula, stop and
think. Maybe the next person to walk past that Russu­
ula will be a novice and may have never seen a Russu­
la emetica quite so red or a Russula brevipes quite
so large. More important, the next person to pass
that Russula may have had a worse day than you. That
Russula may be just what he needs to release his pent
up rage at discovering that someone has been there
before him -- the perfect therapy for him (and his
partner). Saving the Russulas may save a friendship.
Think about it. Save the Russulas!
WANTED (ALIVE): *Agaricus Bisporus* Richard Kerrigan

I am gathering genetic information on wild strains and populations of *Agaricus bisporus* (*A. brunneescens*). I will promptly reimburse anyone who sends a wild collection of *A. bisporus* for their costs: $5.00 if spore prints are mailed, $15.00 if fresh materials are sent by courier. Please telephone (416) 828-5380 before sending material by courier so someone will be ready to receive it. Such shipments should be marked "Material for research. No commercial value." I am also negotiating for funding to provide monetary rewards of up to $100 for significant new collections of *A. bisporus* and the related, rare species *A. subfloccosus* and *A. subpersonatus*.

Very fresh, young mushrooms can be wrapped in a paper towel and covered with waxed paper, placed in a small, crush-proof box, and sent overnight by express-mail or courier. Cultures, on agar slants, padded inside a crush-proof box, can also be sent by overnight courier. Clean spore prints (on new aluminum foil; don't let moisture condense if possible; otherwise air-dry under a large clean bowl before mailing) are also useful, if fresh specimens or cultures cannot be sent. Send spore prints by first-class mail. All materials should be sent to Richard W. Kerrigan c/o Dr. James B. Anderson Dept. of Botany University of Toronto, Erindale Campus Mississauga, Ontario CANADA L5L 1C6

**OF TIME AND FUNGI**

Not only do mushrooms have a calendar to tell them when to fruit, but they also have an even more precise clock that keeps time even when isolated from external influences. Because they cohabit one big cell, all nuclei of the yellow slime mold *Physarum polycephalum*, for instance, simultaneously sense that it is time to untangle the DNA and divide, with the result that the slime mold pulses as it spreads. The bread mold *Neurospora* develops spores that show up as a sort of fuzz precisely every 22 hours, while the fungus *Nectria cinabrina*, when allowed to grow from a point inoculum, will make a ridge of spores every 16 hours at the edge of the slowly growing disk.

**LAKE WENATCHEE FIELD TRIP**

The weather was balmy for our second field trip this autumnal season. A couple of drenching rains in as many weeks preceding the outing brought the mushrooms up. Thirty-six people attended the event. The identifiers were Nick Popoff, Sara Clark, and Larry Baxter. Sixty-four species were brought in. Some of the edibles represented were *Boletus edulis*, *Cantharellus subalbidus*, *Gomphus clavatus*, and *Tricholoma ponderosum*.

**BOOK SALES**

We now have copies of the Louise Freedman's popular and good-looking cookbook *Wild About Mushrooms* issued by the Mycological Society of San Francisco. See me about this and other mushroom-related items, from books and posters to sweatshirts and towels, at the book sales counter at the next meeting.

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**HYBRID MUSHROOMS IN STORE?**

American Society for Microbiology

Although consumers gobble up tons of the common domestic mushroom, *Agaricus brunnescens*, annually, little is known about its genetics, and its life cycle makes hybridization difficult.

This may soon change. According to a recent report (Appl. Environ. Microbial. 54: 1643-1648, 1988), Canadian researchers James Anderson, Alan Castle, and Paul Horgen have now developed straightforward methods to produce hybrids and follow them precisely with molecular genetic techniques.

The first step in producing hybrid mushrooms is to obtain homokaryons, or cells with only one genetic nucleus. Unfortunately, most spores are heterokaryons containing two or more distinct genetic nuclei in each cell.

Using enzymes, Anderson and his colleagues produce protoplasts in liquid culture, 10% of which have only a single nucleus. They then mate them and pull out the hybrids. Crucial to the success of the new method is restriction fragment length polymorphism (RFLP) analysis, which relies on differences in neutral but constant DNA patterns to track the fate of various homokaryons.

Adaptation of RFLP analysis, which is now being used extensively to map human and other complex genomes, could well affect the international mushroom trade. Currently, mushroom growers have no way to protect special strains, and outright theft by competing mushroom growers is commonplace. With a definitive identification system, which RFLP analysis provides, special strains could be protected by enforceable patents.

Meanwhile, the ability to make hybrids more readily could lead to production of special mushrooms with improved commercial characteristics. Researchers are already studying and manipulating traits such as colonization and growth rate, color, and optimum growth temperature. The extent of their effort will depend largely on how eagerly the industry embraces the new technologies now available.

**GIANT MUSHROOMS**

Anatoly Gorbachev, a driver from Kubyshev, a city on the Volga, made a rare find. Not far from the driveway, in a clearing in the wood, he noticed two snow-white balls. They turned to be two huge puffballs, one weighing 7 kg and the other even more. There used to be finds of this kind in these parts, but two mushroom giants is a great rarity, to be sure.

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contributed by Tanya
you don't cross a ridge into another watershed. Also, as you travel, look back periodically in the direction from which you came. The landscape looks different looking back than it does looking forward, which often confuses people. If the sun is out, it is also good to periodically observe its direction for the time of day to help keep you oriented.

You should also be familiar with the accepted whistle signals: one whistle, "Where are you?"; two whistles, "Here I am."; three whistles, "HELP!"

Fortunately, to date we haven't had the experience of anyone being lost for an extended time, but on a few occasions we have had people returning later than they should have by not observing these principles. We sincerely hope we never do have anyone getting lost for an extended period of time.

[NATS not only doesn't want to lose its members, it doesn't want to lose its collecting sites, either. All truffle finds are reported with latitude and longitude — degrees, minutes, and seconds!]

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**MUSHROOM ASTROLOGY**  
Bob Lehman, LAMS

**Scorpio** (Oct. 23 - Nov. 21): You love the mysteriousness of mushrooms. You plot your mushroom hunting strategy in advance, taking into account the motives and likely strategies of competing mushroom hunters. While others on a foray engage in small talk, you sneak away from the group to fill your basket from your secret spot. Aries may cover more ground, but you know how to get more out of the ground you cover. You don't mind Leo's boasting about his chanterelles because you know he'll be proud to give you some. You are willing to endure difficult conditions in order to find the mushrooms you want. You are fascinated by poisonous mushrooms.

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**CHICKEN BREASTS WITH SHIITAKE**  
Louise Freedman  
*Mycenae News*

4 single chicken breasts, skinned and boned  
1/2 in. slice fresh ginger  
2 Tbs fresh lemon juice  
1-1/2 cups water  
5 garlic cloves, minced  
12 dried shiitakes, stems and rinsed

Rub the chicken breasts with lemon juice. Arrange chicken in a baking dish and bake for 15 to 20 min. in a preheated 400° oven or until the breasts are brown and juicy. Turn the chicken occasionally while cooking.

While the chicken breasts are cooking, pour the 1-1/2 cups water into a medium saucepan. Add the garlic, ginger, soy sauce, and the mushrooms. Simmer uncovered for about 15 min. Adjust the taste. If too salty, add more water; if not, add more soy sauce.

Place 3 caps over each breast on individual plates and spoon the sauce over each breast.

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**FIELD TRIP IDENTIFIERS**

In case you were wondering about the new names cropping up as field trip identifiers, three lucky apprentices have taken up i.d. chairman Brian Luther's offer to train a new cadre of mushroom identifiers. The three trainees are Larry Baxter, Sara Clark, and Nicholas Popoff, and we'll be hearing more from them as time goes on.

The Coprinus atramentarius  
Has a reputation nefarious.  
When we tried it with whiskey,  
That proved a bit risky  
But at least it didn't bury us!  
—Harley Barnhart, *Spores & Stipes*  

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Thanks, Ben — Thanks, everybody!  
For another good mushroom show!