

by susan vance • photography by joel strayer

mad about mushrooms

THE FANTASTIC FUNGI ARE GREAT FUN TO HUNT DOWN—
AND EVEN MORE WONDERFUL TO EAT.

“Heads down!”

Those are our marching orders as we make our way up a scrubby hillside in the Caribou Peak area above Nederland.

Like treasure hunters without treasure maps, we have no idea what we will find—if anything. We're seeking mushrooms, and one of the first rules you learn when scouring the woods for the little fungi is that you can either strike gold or return empty handed.

Our band of 20 intrepid mushroom hunters—some seasoned pros, some complete novices—has gathered at this spot, elevation 10,000 feet, for a fungi foray sponsored by the Colorado Mycological

Society, a group of about 300 mycophiles formed in 1964 by a Denver physician named Dr. Sam Mitchel who happened to love mushrooms (the society's newsletter is cheekily dubbed “Spores Afield”).

Our leader is Jon Sommer, a trained botanist and plant pathologist whose specialty is fungi mycology and who handles membership for the CMS. He has advised us beforehand to wear strong, comfortable hiking shoes and to bring a handled basket or other hard-sided container (soft backpacks can crush dainty finds), a field knife and pieces of waxed paper or paper

bags to hold our bounty—mushrooms sweat, so plastic bags are frowned upon.

It quickly becomes evident as we take off into the woods that we will need other tools as well: sharp eyes, an optimistic spirit and patience. A whole lot of patience. Though Colorado mushrooms can be quite showy (the *amanita muscaria*, a Rocky Mountain mushroom rock star, is a vibrant reddish-orange), as large as dinner plates (the cap of the *boletus edulis*, or porcini, can occasionally grow up to a foot across) and out in the open (on the sides of trees or logs, or even sitting like puffy loaves of bread amid grassy meadows), they are often reclusive and brown, camouflaged by their surroundings.

The fungi kingdom takes home the win for world's largest living organism:

The *Armillaria ostoyae* mushroom—or Humongous Fungus, as it's nicknamed—occupies roughly 2,385 acres in eastern Oregon's Malheur National Forest.



A cluster of approximately ten mushrooms, likely oyster mushrooms, are arranged on a dark, weathered wooden surface. The mushrooms have light-colored, textured caps and thick, pale stems. They are clustered together, with some standing upright and others leaning or lying down.

*magical and
mysterious*

Neither plant nor animal,
the mighty mushroom can
be super nutritious, mildly
(or very) poisonous and
even hallucinogenic.

BUT CAN I EAT IT?

While the Rocky Mountain Poison and Drug Center receives only 120 to 150 calls a year about mushrooms—out of 37,500 total calls—Dr. Caitlin Bonney, resident and toxicology fellow there, advises caution.

The rules are fairly simple: Do not consume a mushroom unless you've gotten the go-ahead from a certified mycologist. "Pretty much every non-toxic mushroom has a toxic look-alike," she says.

Michael Heim, president of the Colorado Mycological Society, recalls the humorous but wise words spoken by mycologist Gary Lincoff at the Telluride Mushroom Festival: "You can eat any mushroom at least once."

And while not all poisonous mushrooms are deadly, the side effects could have you leaning over the loo for hours.

Still, you're okay to touch, smell, feel and get as up close and personal as you want with mushrooms. Studying poisonous mushrooms in their natural habitat helps you gain familiarity with them.

But whatever you do, beware of the notorious *Amanita virosa*. It's nicknamed "destroying angel" for a reason.

—Hayden Gamble

Because of that, Sommer advises us to keep our eyes firmly on the ground as we hike off trail (kids often make good mushroom hunters because they are so close to the ground). It's an unfamiliar feeling—not only looking down instead of out at the views but also venturing off the beaten path. That's one reason mushroom hunters are also advised to carry GPS devices; you don't want to suddenly look up after a few hours and discover you don't know where you are.

Sommer's other advice: Look for mushrooms on the moist edges of melting snowbanks, among the roots of trees, and along seams of water—anywhere that's damp. That's why many mushroom hunters go out after spring and summer rains.

A RICH ENVIRONMENT

Despite Colorado's dry air, the state is home to a surprisingly wide variety of seasonal (mostly spring, summer and fall) mushrooms. "You can find mushrooms anywhere, but Colorado has a lot of different, unique habitats in the mountains, some of it relatively undisturbed, and that's where you will often find interesting mushrooms," says Sommer. "Ninety-five percent of all land plants have symbiotic relationships with fungi, including mushrooms. That's particularly true in undisturbed forests, where you find a great diversity of fungi. For example, Doug fir, which is a major tree species in Colorado, has about 1,200

different fungi that form relationships with it throughout the world."

No matter how plentiful the mushrooms, there is a certain etiquette to the society's mushroom forays. Rule No. 1: To be true citizen mycologists, never take more than your share. If there are several of the same variety in a specific area, take one and leave the rest for others. Rule No. 2: No beheading of mushrooms! To be able to properly identify a mushroom, you need to remove the entire thing—including a bit of the environment (like the soil, including things like pine needles) that it's growing in.

SEEKING EDIBILITY

ID-ing is crucial, particularly for home cooks. "Many, if not most, people get interested in collecting mushrooms because they are interested in identifying edible species," says Sommer. "But the purpose of our field trips is not to go out and collect every edible mushroom in sight. It's really to increase people's knowledge, understanding and appreciation of fungi."

That's not to say that Sommer doesn't appreciate edible mushrooms. Quite the opposite. "I might go out specifically to look for matsutake, which in my opinion is the best wild edible in the world—because of its flavor, texture and size. In Japan, they sell for about \$150 a pound. At times the matsutake is abundant in Colorado. But you have to know where to look, which is certain pines at about

9,000 feet in elevation." (Sommer even packs a little sauté pan in his trunk, for times when edibles turn up.)

Despite mushrooms' tasty and sometimes magical traits, we Americans are a mycophobic society; mycophiles, those who love mushrooms, are more commonly found in Slavic cultures. "In my experience," says Sommer, "if you go out into the woods and run across people collecting mushrooms, they're likely to be Slavic."

ASSESSING OUR BOUNTY

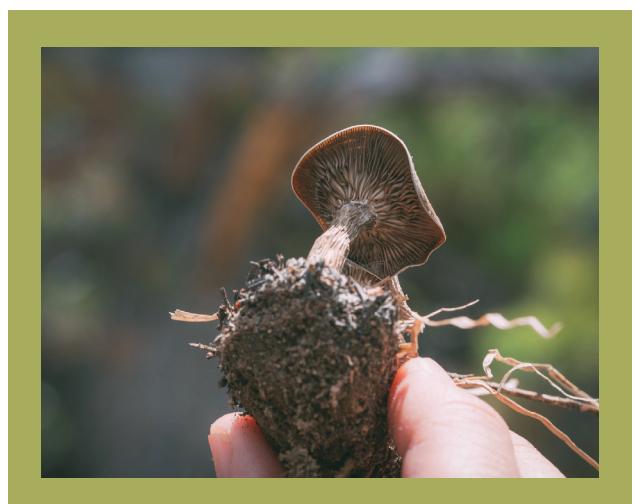
After three or four hours of hunting, our group gathers around the bumper of Sommer's car to assess our bounty. Though he can identify thousands of species by sight, Sommer wears a magnifying glass, like a jeweler's loupe, strung around his neck and keeps a bin full of mushroom guides in his trunk, including the inestimable *Mushrooms of the Rocky Mountain Region*, a product of the legendary mycologist Vera Stucky Evenson and the Denver Botanic Gardens.

Though Sommer says that an average CMS foray in July, August or September might turn up 100 to 120 species of mushrooms, the pickings have been slim and the varieties few for our little expedition.

But, as with all treasure hunts, half the fun has been the element of surprise. And, as Sommer points out, even those of us who didn't find mushrooms got a beautiful hike out of the experience. •••



In terms of DNA, mushrooms are more closely related to humans than to plants. And like us, they consist mostly of water: 85 to 95 percent, in fact.





'shroom service

MILE HIGH FUNGI IS BRINGING EXOTIC, GOURMET MUSHROOMS TO DENVER'S TABLES

despite its occasional abundance in Colorado's forested environments, the mushroom is an unusual farm-to-table crop. That's why Michael and Liz Nail, who both studied sustainable agriculture at Evergreen State College in Olympia, Washington, hatched the idea for Mile High Fungi in the summer of 2014. Today their tiny company—"It's still a two-person mom-and-pop business," says Liz—sells gourmet mushrooms from May through December in area farmers markets, through community-supported agriculture (including as an add-on to the Botanic Gardens' CSA) and to Colorado restaurants. We talked with Liz about the business.

Why mushrooms?

It was either a stroke of genius or insanity. We were living in Denver, and because mushrooms grow using vertical space, we thought they were something we could grow in an urban

environment using some of the organic waste the city produces. We started out in one bedroom in our house at 20th and Federal, then moved to two bedrooms, then to two shipping containers in our backyard. The city

of Denver very nicely told us we couldn't have those containers, so we moved to a 2,400-square-foot steel warehouse about 45 minutes away, in Deer Creek Canyon near Conifer.



Even though mushrooms have a long cultural association with things dark

and devilish, mushrooms and fungi are credited with more than 100 medical uses.

Top of the list: penicillin, which derives from the fungal species *Penicillium*.

nozzles like what you see in the produce aisle at the grocery store. But it's like mad science: We take cultures from the mushroom we're trying to duplicate, a little like mushroom clones, and grow them on a substrate made of hardwood chips and sawdust supplemented with organic soybean hull, oat bran and millet.

How many varieties do you grow?

We do standard-size shiitakes and petite shiitakes, lion's mane, king's trumpets, chestnuts, pioppinos and about five varieties of oyster mushrooms. Our powerhouse is a blue oyster mushroom, but we also do pink, golden and phoenix oysters, too. They taste similar but they're kind of like wine grapes; each one has a different kind of complexity. We can harvest 100 pounds a day—we really can never let up. We have to keep our rooms totally sterile; we handle the mushrooms with nitrile gloves.

Are any of those like the varieties one would find in the wild?

There are a few exceptions, like oyster mushrooms, but most of the mushrooms that are cultivated are different from the mushrooms in the forests, which have complex relationships with their environments that humans cannot duplicate.



MILE HIGH FUNGI

A grower of edible mushrooms that are sold at farmer's markets and through local CSAs.
milehighfungi.com

Want to do more than just cook 'shrooms with your carbonara?

Brew 'em. The king of medicinal mushrooms, antioxidant-rich Chaga, when simmered in water and sipped, will give your immune system a major boost.



SHIITAKES

These rich, buttery mushrooms are often used in Japanese and Chinese dishes. They grow wild on decaying deciduous trees.

LION'S MANES

Long used in Chinese medicine, this ball-shaped mushroom with dripping "teeth" is touted for its medicinal qualities.

OYSTERS

Commonly sought in the wild, this broad, fanlike mushroom has a slight odor like anise and is best picked when young.



PIOPPINOS

Firm, with a mildly nutty flavor, these have long white stems and are also known as Black Poplar mushrooms.

BLUE OYSTERS

Easy to grow, this mushroom can double in size in a day. Like all mushrooms, it breathes in oxygen and expels carbon dioxide.



CHESTNUTS

The same as white button mushrooms but allowed to grow browner, they are like creminis; when larger they are called portobellos.



A MUSHROOM FOR EVERY PALATE

An assortment of Mile High Fungi's edible offerings

mushrooms on the plate

Two amazing recipes from executive chef
Chris Royster at Flagstaff House

"This is a great dish that does what is classically done with roast beef. It has that roasted meat flavor, but it's 100 percent vegetarian."

—CHEF CHRIS ROYSTER



Mushroom popover, served with Domaine Laroche Chablis 2016

Mushroom Popovers

DOUGH INGREDIENTS

- 2 sticks butter
- 2 c. milk
- 2 c. flour
- 1 tsp. salt
- 1 tsp. white pepper
- 4 eggs

MUSHROOM FILLING INGREDIENTS

- 2 c. chanterelle mushrooms
- ½ c. diced onions
- ½ c. diced celery
- 1 tbsp. minced garlic
- 1 tbsp. fresh thyme
- ¼ c. fresh parsley
- White wine

DIRECTIONS

TO MAKE DOUGH

Brown butter in saucepan. Once it's browned, add milk and bring to a boil. Add flour, salt, and pepper. Cook until fully combined. Place in stand mixer with paddle attachment. Mix on slow; slowly add eggs. Once combined, whip for 30 seconds on high. Reserve dough.

TO PREPARE MUSHROOMS

Heat large sauté pan over high, add small amount of oil and sauté mushrooms until lightly browned. Add onion, garlic and celery and lightly sauté. Deglaze pan with splash of white wine (white burgundy or oak-aged chardonnay).

TO MAKE POPOVERS

Lightly grease large ramekin dishes or large muffin tins. Mold or pipe in dough, leaving space for mushroom filling in middle. Spoon mushrooms into center. Bake at 425–450 F for 10 to 12 minutes or until dough has popped up nice and high and browned around the top. Serve with a light salad or fava beans, roasted onions and cherry tomatoes.

Mushroom Ravioli

DOUGH INGREDIENTS

- 1 lb. flour
- 5 eggs

MUSHROOM FILLING INGREDIENTS

- 2 lbs. assorted mushrooms
- 1 onion, minced
- 1 fennel bulb, minced
- 1 Tbsp. garlic, minced
- 4 sticks butter
- 1 pint vegetable stock

PEA PURÉE INGREDIENTS

- 1 cup blanched fresh English peas
- 1 bunch watercress
- 1 shallot onion
- 1 clove garlic
- ½ cup cream
- 2 Tbsp. goat cheese

DIRECTIONS

TO MAKE DOUGH: Mix flour and eggs in food processor to bring dough together.
TO MAKE FILLING: Clean and dice mushrooms. Roast all ingredients in roasting pan until everything is browned and lightly caramelized; strain butter from dish.
TO MAKE PURÉE: Blend ingredients together until smooth. Serve immediately, or chill over ice rapidly.

TO FINISH DISH

Chill mushrooms. Start tempering pasta dough to room temperature, roll out into thin sheets, and cut into squares just bigger than desired size of ravioli. Take two squares, brush one side with an egg wash and place a small amount of filling in middle. Place second square on top and seal edges shut. Top with pea purée; garnish with goat cheese.

For complete recipe, go to denverlifemagazine.com

"This dish is really fun because it celebrates the mushroom itself. We use lots and lots of mushrooms—good varieties—and everything else is there to enhance them. Raviolis can be very simple, but, done right, they can also be very elegant."

—CHEF CHRIS ROYSTER



Mushroom ravioli,
served with Cantine
Valpane Barbera 2011



myco-mania

celebrate mushrooms at these events

MUSHROOM FAIR The Denver Botanic Gardens hosts a multitude of mushroom events, including the **Colorado Mycological Society's** 41st annual **Mushroom Fair**, on Sunday, Aug. 12, at Gates Hall. To prepare for the big event, listen to mycologist Michael Kuo share his knowledge on mushrooms and their edibility on Aug. 10; bring your mushrooms for identification. cmsweb.org

MUSHROOM FORAYS If you're looking for something totally hands-on, the CMS is lead-

ing two fungi forays in August: a **pre-CMS fair hunt** on Aug. 11 at Cheesman Park, followed by another foray on Aug. 26.

MUSHROOM FESTIVAL Celebrate all-things fungal and spore-bearing at the four-day **Telluride Mushroom Festival**, Aug. 16–19. The featured speaker is Paul Stamets, award-winning mycologist and author famed for his expertise in mushroom cultivation and medicinal fungi. Between seminars, lectures, workshops and demos, venture out into the wild

for daily mushroom forays with mycology experts from around the globe. telluridemushroomfest.org

MOUNTAINS AND MORELS Coinciding with the mushroom festival, the Hotel Telluride is offering a "**Mountains and Morels**" package, which includes lessons on mushroom diversity and foraging plus a private three-course gourmet dinner with harvested mushrooms and a wine pairing, from Aug. 1 to 28. thehoteltelluride.com
—Hayden Gamble



Dubbed "earth's natural internet," fungi are made up of tiny threads called mycelium that travel underground and connect the roots of different plants, so they can communicate.