

SPORE PRINTS

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THE BEST PLACES IN THE WORLD TO TRAVEL IF YOU LOVE MUSHROOMS

Kaitlyn McInnis

<https://www.travelandleisure.com/>, April 20, 2019

The culinary world owes a lot to whoever first discovered the magic of mushrooms. Fungi—from everyday cremini to decadent morels—are an undeniable gift from nature. A vegetarian’s delight, the fleshy, umami-packed morsels offer an unparalleled, meaty addition to everything from soup and sauces to pasta and pastries.

But the best thing about mushrooms? They occur naturally all over the world. Unlike a lot of seasonal or state-side veggies, like squash or corn, the versatile—and sustainable—mushroom varies from country to country, making it a cultural Easter egg that varies based on dish and destination.

You don’t have to stick to truffles or morels, either. What’s great about mushrooms is that the everyday cremini or enoki mushroom can be just as decadent when prepared properly. An enoki-packed bowl of ramen in Tokyo can be just as satisfying as a fresh truffle butter pasta in Piedmont. Whatever your culinary preference may be, here’s where to travel to satisfy your inner fungus fiend.

Brussels, Belgium

Europe is home to a wide variety of decadent and everyday mushrooms, but to get a taste of the entire European fungi spectrum, head to Café des Spores. This decidedly cool, but surprisingly affordable bistro nestled in the trendy Saint Gilles neighborhood serves mushrooms in every single dish—including dessert. While the menu changes seasonally, expect everything from porcini and cheese croquettes to mussels with Jerusalem artichokes and black chanterelles.



Café des Spores

Café des Spores,
Belgium.

Rotterdam, Netherlands

While mushrooms are, for the most part, naturally occurring, two friends from Rotterdam took fungus production into their own hands by collecting coffee grinds from cafés across the city and growing no-waste oyster mushrooms. Known as Rotterzwam, the innovative mushroom producers now supply many local restaurants and continue to operate in a sustainable manner, fostering a no-waste ecosystem across the city.



Michiel Vaartjes/Alamy

Home-grown mushrooms,
Rotterzwam, the Netherlands.

Mexico City, Mexico

Think mushrooms only grow in meadows and woods? Think again. Huitlacoche—otherwise known as corn smut, or, more elegantly put, Mexican truffle—is technically a plant disease that spreads into ears of corn but tastes undeniably decadent. The blue-black spores are considered a delicacy, and are best served on huarache or tostadas. Head to the Mercado de Coyoacán, just around the corner from the Frida Kahlo museum, for a huitlacoche tostado—or two. And unlike traditional truffle dishes, a huitlacoche tostada will run you less than a dollar.



Euphonia/shutterstock

Mushrooms and huitlacoche,
Coyoacan market,
Mexico City.

British Columbia

The West Coast of Canada has some of the most vast, biodiverse wilderness in all of North America—making it a great spot to forage for fungi. Just outside of Vancouver, there are countless forests with plenty of everything from chanterelles to lobster mushrooms. Many fishing resorts, like Nimmo Bay Wilderness Resort in British Columbia’s Great Bear Rainforest, offer foraging classes from experts—and actually incorporate the wild mushrooms guests find into their meals.



Kyoto, Japan

Home to the traditional Japanese Kaiseki set meal, Kyoto has some of the most Michelin-three-starred restaurants in the world. It goes without saying, you’ll have no problem finding some of the best sashimi and tofu of your life. But Kyoto also has a handle on Sansai (Japanese mountain vegetables) including mushrooms unique to Japan such as matsutake, nameko, and maitake. If you’re in the mood to be spoiled, head to Michelin-starred Kichisen for a multi-course Kaiseki dinner, complete with fresh foraged Sansai, expertly prepared and presented. Be sure to make a reservation in advance.



Gerry Images

Kaiseki, Kichisen.

Piedmont, Italy

The truffle is one of the most sought-after mushrooms in the world—and for good reason. Synonymous with decadence and fine dining, truffles are seasonally harvested in autumn until December and are otherwise considerably hard to come by. While travelers opt for guided foraging trips throughout Italy, The International

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CALENDAR

- May 12 Field trip (see PSMS website)
May 14 Membership meeting, 7:30 pm, CUH
May 17-19 Field trip (see PSMS website)
May 19 Mushroom Maynia, Phinney Center
Community Hall, 12:30-5 pm,
6532 Phinney Ave N, Seattle, WA
May 20 PSMS board meeting, 7:30 pm,
CUH board room
May 21 *Spore Prints* deadline
May 24-26 Special volunteers' field trip
(see PSMS website)
May 31-June 2 Field trip (see PSMS website)
June 8 Field trip (see PSMS website)



MEMBERSHIP MEETING

Tuesday, May 14, 2019, at 7:30 pm at the Center for Urban Horticulture, 3501 NE 41st Street, Seattle



David Giblin

Our speaker for May will be David Giblin, and his topic will be "The Burke Museum Fungal Collections: Past and Present, Significance, and Ideas for Their Future." It this all sounds familiar, David was scheduled to speak to PSMS in February, but got cancelled by Snowmageddon! Now we get another chance.

The University of Washington Herbarium is the Burke Museum's botanical research collection. Founded in the late 19th century, the herbarium comprises five collections: macrofungi, lichenized fungi, vascular plants, nonvascular plants, and marine algae. Of the herbarium's 700,000 specimens, over 75,000 are macrofungi and nearly 32,000 are lichenized fungi. The herbarium's fungal collections are an invaluable resource for professional, academic, and amateur mycologists alike. In this presentation David Giblin will provide a brief history of the fungal collections, review the substantial efforts made over the past decade to enhance access to these collections, and discuss ideas about the collections' future.

David Giblin has been Collections Manager of the UW Herbarium since 2002, where he oversees the plant, fungal, and marine algae collections. His research interest is the vascular plant flora of the Pacific Northwest, where has led plant collecting trips from Washington to northern Nevada, eastward to Idaho and Montana. In the collections he has led efforts to database and image the collections, and he led the creation of online resources such as the Consortium of Pacific Northwest Herbaria, and the Plants and Fungi of Washington Image Gallery. He is lead editor for *Flora of the Pacific Northwest*, 2nd edition, co-author of print wildflower guides to the Olympic, North Cascades, and Mt. Rainier national parks, project lead and contributor to the Washington Wildflower and Idaho Wildflower plant identification apps, and editor and board member for the Flora of North America project.

BOARD NEWS

Luise Asif

The spring deadline for the Ben Woo Scholarship was March 1, and PSMS received six applications. Although all were worthy, the board was able to award only three. September 1 is the deadline for fall scholarship applications. A reminder that the Ben Woo Scholarship is set up for both students and amateur mycologists. Thank you to all who support the program with donations and support of auctions and raffles. PSMS is cosponsoring the Andrew MacKinnon talk at 7:00 pm May 4 at The Mountaineers. Mushroom Maynia is well under way. Thank you to all who have volunteered to help. We still need a few more people to help with book sales and cultivation. The Bridle Trails Study has started again for the spring, meeting alternate Sundays and Mondays. The Monday sessions combine with the spring ID clinics. Marian and Scott Maxwell, Marion Richards, and Paul Hill represented PSMS at Bellevue College on April 24 as part of their Earth Day program.

PRESIDENT'S MESSAGE

Randy Richardson

Many years after joining PSMS, following a misidentification that (literally) left a bitter taste in my mouth, I find myself now an executive of this amazing club. Spring is here, and the long winter wait is about over. ID clinics start up again the 29th, at CUH, Mondays from 4–7 pm. I highly recommend attending, as the best way to learn mushrooms.



Mushroom Maynia will be for one day, at Phinney, on May 19th—always an enjoyable event. And Brian's Memorial Day gathering has everyone excited; this year it is being run as a volunteer appreciation occasion. Read the new rules concerning utensils and waste on field trips.

Classes are being held to help us get to know and understand the phenomenal variety of mushrooms out there; the classes often fill quickly, and, like field trips, are for members only.

Volunteers are the heart of this group, and we could not possibly function without all the willing participants. Thank you to all those who help out.



Best Mushroom Places, cont. from page 1

De Agostini via Getty Images



Alba white truffles.

Alba Truffle Fair—just outside of Piedmont—draws local restaurateurs, renowned chefs, and tourists alike to appreciate and purchase the best truffles Italy has to offer. The fair runs from early October to late November.

Copenhagen, Denmark

Copenhagen is home to the famous Noma. A bucket list item for many, Noma strives for culinary perfection—from taste and atmosphere to sustainability. Their seasonal ingredients are locally foraged, meaning mushrooms regularly act as the star of the show. Be sure to book far in advance, the two-Michelin-star restaurant by chef René Redzepi is not easy to get into—but it's worth planning for.



Noma, Copenhagen, reindeer moss and mushrooms.

businessinsider.com

Kennett Square, Pennsylvania

Don't have the time for an international trip at the moment? Just head to Kennett Square, Pennsylvania, which boasts the largest—and tastiest—selection of mushrooms in the U.S. The Woodlands at Phillips Mushroom Farms (just outside of Kennett Square) offers cooking demonstrations with local chefs, a selection of handpicked mushroom varieties (think everything from cremini and shiitake to royal trumpet and lion's mane), as well as a quirky mushroom exhibit—which shows the mushroom-growing process, from start to finish.



The Woodlands at Phillips

A FRENEMY FUNGUS PROVIDES CLUES ABOUT A NEW DEADLY ONE

<http://theconversation.com/>, April 15, 2019

It seems like every few years there's a virus or bacterium that threatens human health in a new way. But a new fungus that is a threat to humans? That doesn't happen very often. That's why we in the medical mycology community—the people who study dangerous fungi—are so intrigued and concerned by news reports about a new, deadly fungus called *Candida auris*.

Candida auris is believed to have been first identified in 2009 in the ear canal of a patient in Japan, but has taken the medical community by surprise with its rapid spread across the globe in the last decade. *Candida auris* has now been detected in about 20 countries and shows no evidence of stopping.

What makes this well-traveled fungus fascinating and scary? Unlike other species of *Candida*, it is known to survive in hospital rooms for prolonged periods of time and is responsible for several outbreaks due to patient-to-patient transmission. The most concerning characteristic of this fungus, however, is its ability to withstand anti-fungal treatment.

We are a team of medical mycologists working at Tufts University and specializing in the study of a different fungus, *Candida albicans*, and how it affects human health. We have been interested in *C. albicans* for years because its interactions with humans are so complex: Sometimes it seems friendly and sometimes it is our enemy. The new fungus *C. auris* seems very mysterious, but we believe we can use what we have learned from studying other fungi to deal with this new organism.

A Formidable New Adversary

Fungi are among the most successful, resilient, and fascinating groups of organisms on Earth. In fact, the largest organism on

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PSMS ID LABELS AND KEEPING UP WITH MUSHROOM NAME CHANGES

Wren Hudgins & Danny Miller



Wren Hudgins

PSMS ID labelers hard at work.

Even two-year-old Lisa knows that her puppy is different from an oak tree. When her neighbor comes over with his puppy, Lisa immediately knows this new puppy is like her puppy and not like the oak tree in the back yard. As she grows up, she'll have different names for dogs, perhaps moving from doggie to dog to puppy to terrier to *Canis familiaris*. She is sorting and categorizing things as her way of understanding her world, and her vocabulary changes. We categorize things so we can understand exactly what we are talking about and communicate clearly.

The scientific way of categorizing our world is called taxonomy, and its language is Latin.

History of Taxonomy

The first generally accepted taxonomic system was developed in the 18th century by Carolus Linnaeus of Sweden. Living things were placed in the same genus if they seemed to share many characteristics and then into the same species if they seemed to share all or almost all characteristics. Using mushrooms as examples, two mushrooms were considered the same genus and species if they seemed to share the same stem, gill attachment, spore color, cap details, substrate, and habitat characteristics, at least as far as we could see.

The system worked well for a hundred years or so, until microscopes began to be employed in taxonomic work. Now we could see finer details and discern that these two mushrooms that looked identical to the naked eye, in fact, differed on a microscopic level. Perhaps they shared some characteristics and could remain in the same genus, but no longer could they be considered the same species.

So, with the aid of this new tool, we entered into an era of reclassification in mycology wherein mushrooms moved around, some acquiring a new species name, some moving to a known but different species, and some moving to an entirely new genus and species. All that done, this new system lasted fairly well for another hundred years or so.

Starting in the 1970s we developed yet another tool destined to change taxonomic work: DNA analysis (AKA genetic testing).

Taxonomy in the Era of DNA

It took a while to refine this tool and then to apply it to mycology. Once we were able to apply it, we discovered fine differences between mushrooms that were formerly classified as the same species. We also discovered that many mushrooms were even in incorrect families (a taxonomic level above genus). So started another era of reclassification of mushrooms.

Genetic testing costs money and mycology research money is scarce, so this reclassification of mushroom names became a slow-moving wave with name changes and family assignments dribbling out over time.

With our ability to detect extremely fine differences between two mushrooms comes another dilemma. How much of a difference can we tolerate between two members of the same species and still call them members of the same species?

The answer depends on whether you are a "lumper" or a "splitter." Lumpers are willing to lump mushrooms with small differences all together under one species name. Splitters on the other hand tolerate little or no difference between members of one species. A lumper might argue that these five mushrooms are all the same genus and species, whereas a splitter might argue that they are five different species within the same genus. Extreme lumping would result in a mushy lack of clarity, so probably would not be helpful. Extreme splitting, on the other hand, might result in a 500-fold increase in the number of species we have. Is that helpful?

It seems that the extremes in either direction might not be helpful, but where is the sweet spot of maximum helpfulness? Currently there is no consensus, although the mycological community leans more toward splitting than lumping.

The net result of genetic testing so far is greater identification accuracy, an increase in the number of total species, some new genus and family assignments, and quite a lot of new names. So how does a mushroom club cope with all these fast-changing mushroom names?

Not every mushroom club can cope with them. PSMS is lucky enough to have two expert identifiers, besides our scientific advisor, who keep up on the research and stay current with the ever-evolving names and reclassifications.

Updating the PSMS Mushroom Show Tags

Recently we (Danny and Wren) decided to undertake the project of updating the identification tags we use at our annual wild mushroom show to label each mushroom as to genus, species, and edibility.

We had two goals for this project. The first was greater accuracy on current names and taxonomic classification. The second was boosting education.

On average, we display about 280 species at our annual show. However, over the past 20 years, we have displayed a collective total of 900 species, a few showing up only once in 20 years and others showing up every year, with most in between.

Danny Miller generously gave his time to create new labels for 900 mushrooms. Some mushrooms have multiple identical labels, so actually Danny created 2000 new labels.

In the past we printed these labels individually with a label maker, a process that would not be feasible for creating 2000 new labels.

So we switched to computer printing of adhesive paper labels. This process allowed us to create a master list on the computer, which will be easily updatable when names continue to change. Not all mushrooms have new names, but since we changed the labels themselves and also how they are printed, we had to reprint labels for all 900 species.

To contribute an educational component, we added some taxonomic information to the tags of gilled mushrooms. In many cases, we added the family to which the genus belongs. Sometimes we used a “type” instead of a family, like “collybioid” for things that look like collybias. There were also some changes in organization which may very well result in changes in how we display these mushrooms in the show. Mostly, gilled mushrooms are still organized by spore color. Dark and white spored mushrooms are so numerous that we were able to do some organizing within spore color, by genetic relatedness.

There were a lot of pieces of the puzzle to organize. To put it all together, we held a work party on April 7, 2019. Fifteen members gave up most of a Sunday for this work. They were:

Shannon Adams	Les Rawlings
Luise Asif	Randy Richardson
Jesse Clark	Reba Tam
Wren Hudgins	Kim Traverse
Iain McConnell	Dave and Wuqi Weber
Danny Miller	Andrew White
Dan Paull	Joe Zapotsky

We created new plastic tags, affixed the printed identification labels, and organized the tags alphabetically within genus (mostly). All the above for 2000 tags. In the final hour, Danny gave a lecture on how all the agarics (gilled mushrooms) can be divided and organized into about 20 categories.

There will probably be some name changes between now and the annual show in October, but we now have a system that allows fairly easy updating and, for the first time in 30 years, we’ll produce a show with up-to-date, accurate names.

FIRST ARCHITECTURAL ARCHES GROWN IN A LAB
Katharine Schwab
<https://www.fastcompany.com/>, April 15, 2019

Mushrooms have become many designers’ favorite food. But not because of how they taste: the root of mushrooms, called mycelium, can be used to make an organic material that’s sturdy enough to use in chairs, buildings, and even cities. It’s also been used to create faux leather, lab-grown meat, and even 3D-printed organs.

But mycelium doesn’t have to be purely practical: This year at the world’s largest design fair in Milan, Carlo Ratti Associati designed a series of elegant, 13-foot-high arches made out of 1 km (or 0.6 miles) of the material. The 60 arches, which are artfully arranged in groups over a path in Milan’s botanical gar-



Carlo Ratti

den, were grown with the help of the Dutch Krown Bio lab over the course of two months. They create a whimsical architectural element in the gardens that looks right out of *Alice in Wonderland*.

The arches were designed using a technique called the inverted catenary method, which was invented in the 18th century to create compression structures—like arches—and later popularized by Spanish architect Antoni Gaudi. The technique involves hanging the arches upside down first to find their natural curve before turning them upright. After determining the ideal shape, the designers packed the mycelium into molds around a light wooden core before letting it grow and then dry.

Once the firm’s exhibition is over on April 19, the arches will be returned to the soil, fulfilling the installation’s name: *The Circular Garden*. That makes the arches different from most installations at Milan. Most temporary festivals or fairs are often full of one-off installations that end up being wasteful—just like the cheap conference swag that companies often give away. But Carlo Ratti Associati’s installation manages to demonstrate the potential of an emerging material in a way that is fully sustainable.

Mushroom Dance

*Dancing on the mushrooms
 Jumping on their hats
 We are the faeries of the night
 You can't see us if there's light
 Can you see us as you're passing by?
 We like to see our shadows when we dance
 But only by candlelight!
 We are the faeries of the night
 And before daylight comeswe're gone!
 And though you'll never in this lifetime see us
 twice
 You'll always remember us with an enchanted sigh
 Dancing on the mushrooms at night
 By candlelight!
 —Daphne*



PSMS MEMBER CREATES MOREL GAME APP

As a solo project, PSMS member Brian Laager spent much of 2018 creating a game for smartphones and tablets themed around mushroom foraging. *Morels* is now released on available on the App Store (iPhones and iPads) and Google Play (Android devices). It’s actually a digital version of the already existing 2-player card game named *Morels*. Players forage, sell, and cook varieties of mushrooms to outscore their opponent. The game includes wonderful art of chanterelles, porcini, lawyer’s wigs, and of course, morels. If you have any questions, you can contact Brian at blaager@gmail.com or visit the following links:

Game Site: <https://www.mossbark.com/morels>
 Game Trailer: https://youtube/s8T0bb_kspl

***Candida albicans* vs *Candida auris*, cont. from page 3**

Earth is believed to be a mushroom. We do not know exactly how long fungi have been around, but it is believed that they might be some of the oldest land dwellers on Earth.

During their existence, fungi have dealt with a multitude of global catastrophes, including five—and perhaps a coming sixth—mass extinctions. In order to survive and thrive during these extreme conditions, fungi have developed amazing strategies which have allowed them to conquer every environment imaginable. Out of the estimated 1.5 to 5 million fungal species on Earth, about 300 are able to cause disease in humans. In the case of *C. auris*, we know whom it is related to, but we do not know where it came from or how people acquire it.

Unlike anti-bacterials, the number of types of useful anti-fungal drugs is quite limited. There are only three main classes, and the chance of discovering new drugs is limited by the fact that fungi are in the group of organisms called eukaryotes, as humans are, which makes it difficult to find a drug that can kill a fungus but not a person. Additionally, anti-fungal resistance has been emerging over the past few decades in some fungi that cause disease in humans, but *C. auris*' resistance to anti-fungals leaves other resistant fungi in the dust. Some *C. auris* strains are resistant to all classes of clinically used anti-fungals, which is extremely alarming.

Candida auris is also able to form biofilms, which are microbial communities attached to a surface and protected by a “glue-like” layer. The architecture of the biofilm protects *C. auris* from anti-fungals and immune system attacks. In the context of health care, microbial biofilms often form on plastics such as catheters, pace-makers, and other implanted devices. These biofilms have been well studied for many microbes, but we do not fully understand the importance of biofilms formed by *C. auris* in the context of human disease.

Where did this new pathogen come from? Why is it highly drug-resistant and able to spread so easily? How does it interact with our body and the other microbes in and on our body? While we don't know much about *C. auris* yet, we know quite a bit more about its distant cousin, *C. albicans*.

Lessons from *C. albicans*

The fungus *C. albicans* was first described by Hippocrates in 400 B.C. when he was describing oral thrush, a disease characterized by white lesions that form in the oral cavity when there is overgrowth of *C. albicans*. Since then, *C. albicans* has become one of the most studied fungi next to *Saccharomyces cerevisiae*, the baker's and brewer's yeast.

Candida albicans can cause fatal infections in humans, but more commonly this fungus resides in the human body, in the gut or on the skin, as a harmless member of the microbiome, which is the whole collection of microorganisms in and on our bodies.

In a study from the 1970s, investigators showed that if you test one-month-old babies for fungi, you find that almost every one of them had acquired a fungus, usually *C. albicans*. The conclusion was that it is completely normal for a person to have *C. albicans* in their body.

Yet, if the person develops a weakened immune system, the *C. albicans* that was already inhabiting their gut could become dangerous by changing its shape to elongated cells known as hyphae.

These hyphae are then able to invade and destroy tissue, enter the bloodstream, and cause a potentially fatal infection.

Hope in the Time of *C. auris*

A few years ago, our group started to wonder why this happens. Why is it OK that humans would have a fungus in our bodies that might kill us if conditions changed? Is there anything that the fungus does that might be good? We decided to investigate this question using a mouse model of infection.

We found that mice that carried *C. albicans* in their guts were protected from lethal doses of the bacterium *Clostridioides difficile* (*C. diff*). These findings showed that *C. albicans* has wide-ranging effects on its human host and in some situations could actually be beneficial.

Many aspects of *C. albicans* biology have been studied. We have a good understanding of what type of conditions push *C. albicans* to become a disease-causing organism and form biofilms. We also have identified some of the tricks that allow it to become drug resistant, such as acquiring mutations in a gene called ERG11. Interestingly, the ERG11 gene of *C. auris* has also acquired mutations that contribute to its drug resistance.

So why is it important to consider *C. albicans* and other related *Candida* species when we are dealing with *C. auris*? If we understand some of the complex ways that *C. albicans* interacts with humans, this knowledge gives us a window to understand how *C. auris* might cause disease in people. Additionally, the lessons learned from studying *C. albicans* and other related fungi could help us develop solutions to deal with *C. auris*.

Know thy enemy, in this case, by understanding its family.

RARE, ISRAELI-CULTIVATED DESERT TRUFFLES MAY SOON BE AVAILABLE

Klara Strube

<http://nocamels.com/>, April 21, 2019

Israel's culinary landscape has often been praised for offering a multicultural flavor palette and adventurous food combinations. Over the past several years, Israeli researchers have been cultivating a rare desert treat to add more widely to the local cuisine.

In the dry lands of the Negev, researchers at the Ramat HaNegev Desert Agriculture Center have cultivated a unique desert truffle known as *Terfezia leonis*, a prized delicacy across the Middle East and North Africa.



*Cultivating
Terfezia
leonis.*

nocamels.com

But in Israel supplies are unstable and costs unpredictable, making the rare fungus a hard-to-come-by ingredient. The Jewish Telegraphic Society reported last year that market prices for the truffles reached \$120 per pound, “slightly less than the cost of silver and four times that of uranium.”



Terfezia leonis.

“Today, the fungus you find in the market is there because of the Bedouins,” explains Professor Yaron Sitrit, who is head of the research project that aims to commercialize the cultivation of desert truffles in Israel’s south. “The Bedouins know the host plant, can track the mushroom down, and sell it in the market. But it’s collected in the wild, and the yield is heavily influenced by the rains. This year, for example, the rain patterns were very bad, so you can find almost no fungi in the markets, and the prices are very high. People can buy the fungus today, but they are dependent on rain, God, and the Bedouins who will collect and sell it to them.”

This is about to change. In a long-term research endeavor, the researchers managed to decode the intricate relationship between the fungus and its host plant *Helianthemum sessiliflorum*, commonly known as the Desert Trap, in a successful experiment first unveiled last year in Israeli news daily *Ynet*. The experiment was a joint cooperation between the Ramat HaNegev Desert Agriculture Center and Sitrit.

Both the fungus and the host plant require little water and no fertilizer, making it potentially a very cost-effective agricultural crop. The plant grows in the dry dunes of the Mediterranean desert lands but, despite all adjustments, is unable to absorb phosphorus by itself.

“The fungus does that much better,” explains Sitrit. “It transfers the phosphorus it absorbs to the plant and in return gets sugars and other nutrients from it that can only be produced through the plant’s photosynthesis, nutrients the fungus needs to be able to grow underground.”

The challenge was to not only keep the conditions stable enough for both the plant and the truffles to grow, but also keep their intricate, necessary symbiosis in the experimental field.

In the beginning, about 30 kg (66 lb) of truffles were farmed per hectare (2.4 acres)—not enough to make the endeavor profitable. “So we came up with more ideas, and over the last three years, we jumped from 30–130 kg (286 lb) to 140–150 kg (330 lb) per hectare, so we are getting closer and closer to commercialization,” says Sitrit.

According to his calculations, approximately 300 kg (727 lb) per hectare would be needed to make truffle-farming marketable in Israel, a goal that seems attainable.

But the professor’s dreams are bigger than just making the delicacy available for Israeli foodies all year round. For him, the truffles also present an excellent opportunity to give Israel a new touristic feature.

Much as families can go cherry-picking or harvest strawberries on a sunny Saturday, truffle-hunting could become the next attraction. The truffles grow especially well in areas near Egypt’s Sinai region, which are usually not very popular travel destinations. “But in the villages here, there is room for tourists. They can come with their families, take them to the fields, go truffle hunting—that’s nice for kids and adults.”

LOST AND FOUND

Mushroom-hunting season’s here again—and again a few folks are getting lost in the great outdoors and finding things they didn’t want to.

Oregon Mushroomer Missing

Jamie Parfitt

<https://www.kdrv.com/>, April 18, 2019

TRAIL, Ore. - Search and rescue teams are looking for a Trail man who has been missing since April 13, according to the Jackson County Sheriff’s Office (JCSO).

Dale Westrom, 43, was reportedly headed out on a hunt for mushrooms, and was last seen around 6 am on Saturday. He had been walking along Highway 227 at the 44-mile marker, near the intersection with National Forest Road 32.

A friend reported Westrom missing on Monday after he did not return. “Westrom has difficulty communicating verbally due to a medical condition,” JCSO said.

Ohio Mushroom Hunters Find Body

<https://www.xeniagazette.com/>, April 17, 2019

YELLOW SPRINGS, OH - The body of Leonid Clark, 26, of Yellow Springs, was discovered by three men hunting mushrooms April 12 in Glen Helen Nature Preserve near Grinnell Road near the river. The Miami Valley Regional Crime Lab was able to identify the body as Clark’s by his palm print.

Clark was reported missing to the Yellow Springs Police Department Feb. 5 by his family. According to Yellow Springs Police Chief Brian Carlson, Clark had not made any contact with his family or had been active on social media since Jan. 13.

“The wounds on the body indicate to us that a second party is involved,” Greene County Sheriff Gene Fischer said, adding that “a homicide investigation has begun. ... We’re going now from a missing person to investigating a crime.”

Indiana Mushroom Hunters Discover Human Remains

Bob Blake

<https://www.theindychannel.com/>, April 17, 2019

ANDERSON, IN - Police in Anderson are investigating after a father and son hunting mushrooms discovered human skeletal remains in an Anderson park near the White River. According to Anderson police Maj. Joel Sandefur, police were called to River Bend Park shortly before 11 am Wednesday. Based on the condition of the remains, Sandefur said they had been there for a while.

Officers processing the scene discovered an identification card belonging to a male who has been reported missing, Sandefur said. Police are not releasing additional details regarding the missing person case pending efforts to determine if the remains found match the name on the identification card, he said.



CHICKEN BREASTS WITH MORELS

Craig Claiborne

<https://cooking.nytimes.com/>

Ingredients

- 1 cup dried morels, about 1¼ oz.
- 8 skinless, boneless halved chicken breasts, about ¼ lb each
- Salt to taste if desired
- Freshly ground pepper to taste
- 4 TBs butter
- 3 TBs finely chopped shallots
- ½ cup dry white wine
- ½ cup heavy cream
- ⅓ cup rich chicken broth



Preparation

Put morels in mixing bowl and add warm water to cover. Let stand 30 minutes or longer. Drain.

Put each chicken breast half on flat surface, trim off all remnants of fat, and sprinkle with salt and pepper.

Heat 1 TBs of butter in small heavy skillet and add 1 TBs of shallots. Cook, stirring, until wilted. Add drained morels, salt, and pepper. Cook, stirring, about 1 minute and add 1/2 of wine. Cook until liquid is reduced by half. Add cream and cook 2 minutes.

Heat 2 TBs of butter in skillet large enough to hold chicken in one layer. Add chicken pieces and cook over moderately high heat. As

chicken pieces cook, stir gently without turning about 3 minutes or until nicely browned. Turn and continue cooking about 5 minutes.

Transfer chicken to warm serving dish, arranging neatly. Add remaining shallots to skillet and stir briefly. Add remaining wine and stir to dissolve brown particles that cling to bottom of pan. Cook down until not quite evaporated. Add chicken broth and cook 1 minute.

Heat morels in cream and spoon around chicken.

Swirl remaining tablespoon of butter into sauce with chicken broth and spoon over chicken pieces.

Serves 4



May is morel month!

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