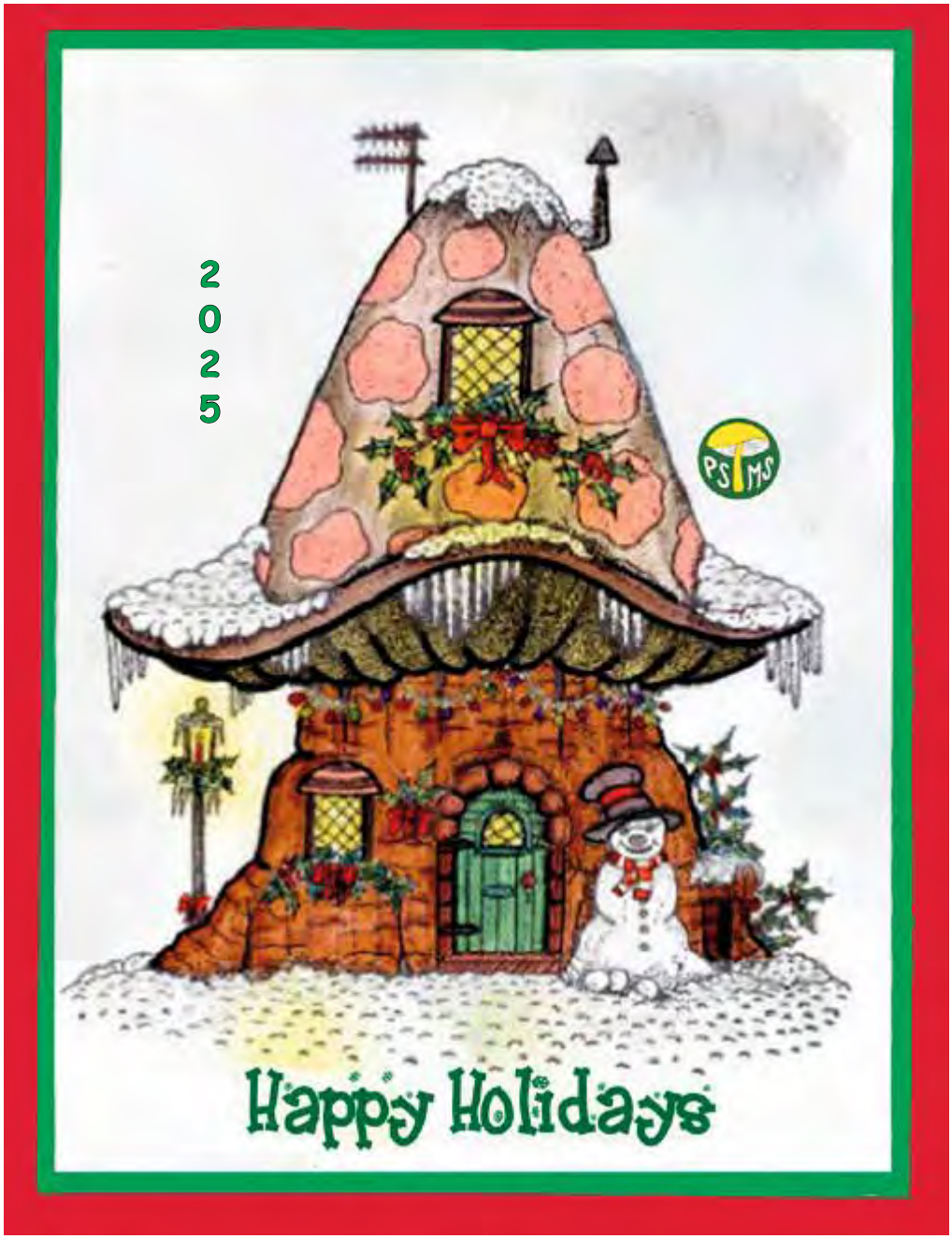
SPORE PRINTS

BULLETIN OF THE PUGET SOUND MYCOLOGICAL SOCIETY
Number 617 December 2025



Spore Prints

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CALENDAR

Dec. 7	Mushrooms 101 beginner classes, 8:30 am to 4:30 pm, CUH (registration required)
Dec. 9	Holiday Social, 7:30–10 pm, CUH (registration required)
Dec. 10	Board meeting, 7:30 CUH board room
Dec. 16	*Spore Prints* deadline
Jan. 13	Membership meeting, 7:30, CUH

BOARD NEWS

Kelsey Hudson

The board convened to review several key operational and membership items. As required by our bylaws, a Nominating Committee must be formed this month to identify board and officer candidates for the 2026 cycle. Several current members have terms ending, with Amy Foster, Laurie Wu, and Clay Dawson planning to run again and Cindy Brewster, Joe Zapotosky, Andy Iwata, Megan Brewster, and Peg Rutchik stepping down. Marian Maxwell, Peg Rutchik, and Megan Brewster agreed to serve on the Nominating Committee.

The board reviewed current library checkout procedures. Historically, members had to hold at least one year of membership and provide a deposit to borrow books owing to past losses. After discussion, the board approved a motion to loosen these restrictions. Beginner titles may now be checked out by any member without a deposit. Danny Miller, our librarian, will have discretion to manage these loans. The group acknowledged the need to monitor losses and may explore alternatives such as collecting credit card information or adjusting the handling of more valuable titles if issues persist.

Preparations are underway to select candidates for the upcoming Golden Mushroom Award. The need to have a jeweler produce new award pins was emphasized. In addition, Kelsey introduced Wren Hodgins' idea of member longevity awards, proposing pins starting at 25-year members, with suggestions to recognize longer membership milestones as well. The group also discussed ways to honor "super volunteers," though the lack of a comprehensive volunteer tracking system is an obstacle to implementing this.

Field trip hosting continues to be an area needing attention. Post-COVID, we have struggled to recruit and retain field trip hosts. We discussed options to lessen the burden on hosts and to encourage repeat volunteers. We discussed increasing the host budget to $250, offering only beverage service at field trips, and encouraging participants to bring snacks/breakfast items. It was brought to the board's attention that field trip attendees have shown disrespect toward the hosts at recent field trips. We strategized options for reinforcing expectations at these events and to encourage respectful behavior. Plans are underway for a volunteer recruitment push at an upcoming meeting.

Finally, the board acknowledged and celebrated Dr. Denis Benjamin's generous contribution to PSMS. Following his final public presentation at the show, he has given the organization rights to his artwork, with the simple request that he receive copies of any merchandise created using it.

MEMBERS MEETING & HOLIDAY SOCIAL

Brenda Fong

Date: December 9, 2025
Time: 7:30 pm to 9:30 pm
Cost: $10 per member
Place: UW Center for Urban Horticulture

Our December *members only* meeting (no Zoom) will be a trustee-hosted "Holiday Bash." This event will include light finger foods and alcoholic and non-alcoholic beverages. COVID restrictions have been dropped, so masking is optional. We will have hand sanitizer available. Doors will open and check-in will begin at 7:00 pm.

This will be a good opportunity to share your mushrooming foraging successes after a mixed fall mushrooming season and to get to know others in the club. Books and mushroom-

related merchandise will be available. Once again, we are renting the atrium and garden areas to allow people to spread out, get some fresh air, and mingle in small groups.

Since space is limited, we require pre-registration to attend. Sign-ups will begin on December 1, and you will be receiving a special announcement in your email providing details on signing up.

This event is hosted by your PSMS board (past and present) and provides an opportunity to meet them as well as our committee chairs.




MEANY MUSHROOM WEEKEND — Jerry Stein

On Friday, October 31, about 50 participants and 25 lodge volunteers and PSMS guides made their way to The Mountaineers' Meany Lodge, located near Stampede Pass, for the 35th annual Meany Mushroom Weekend. (The 2020 event was canceled.) Participants included PSMS members, Mountaineers members, and nonmembers.

On Friday evening, Wren Hudgins and I shared some fungus fundamentals and foraging tips with the participants, then helped them use the Kit Scates gilled mushroom key to identify *Lactarius* (*deliciosus*) and *Stropharia* (*ambigua*). We also fielded questions about the 50 or so other mushroom species that Randy Richardson and I had gathered along Tinkham Road that afternoon.

Mushroom weekend, Meany Hall, The Mountaineers.

The next morning, the lodge participants were divided into groups, each led by a PSMS guide. Some carpooled to nearby locations such as Lake Kachess while others foraged on the lodge grounds, which is a ski area in winter. It was a rainy day, but people returned to the lodge with plenty of mushrooms, smiles, and curiosity. The most common edibles were red-capped *Leccinum*, the Admirable Bolete, and a number of *Suillus* species. A few people found matsutake, white chanterelles, golden chanterelles, Bear's Head, and Hedgehog mushrooms. Wren and Derek and I worked steadily to sort the specimens by genus and label some to species. Danny Miller wasn't able to join us this year; we missed his expertise, but we were able to identify about 100 species.

Throughout the weekend, participants enjoyed the fungal feasts prepared by the Meany Lodge kitchen crew. Appetizers were prepared with *Lactarius* and morel mushrooms, and Saturday's dinner featured roasted pork loin stuffed with mushrooms or a meatless option with mushroom rice pilaf and green beans. After dinner, Wren shared a presentation of his "top 20" edible PNW mushrooms. The presentation was followed by the traditional Meany Mushroom Weekend dessert buffet.

On Sunday morning, I led a "tray tour" of the genera and species that were brought in the previous day. Marion Richards conducted a mushroom dye demonstration, and Sui Chan from the kitchen crew did a cooking demo of a salad shrimp, tofu, and a bolete stir fry. People who stuck around for Sunday lunch enjoyed the stir fry and a mixed wild mushroom cream soup before heading home with a log kit of either oyster or shiitake mushrooms from Sno-Valley Mushrooms.

Thank you to the PSMS members who assisted in the planning and execution of another successful Meany Mushroom Weekend, including primary identifier and guest speaker Wren Hudgins and forage group guides Paul Hill, Becky Chan, Derek Hevel, Marion Richards, Tea McMillan, and Randy Richardson.

The first Meany Mushroom Weekend was held in 1989 as an activity of the Naturalists committee of the Seattle Mountaineers. It was the brainchild of Mountaineers and PSMS members Coleman Leuthy and Patti Polinski, who are missed and remembered fondly by myself and many of the lodge crew.

WHAT DO CHANTERELLES, TUXEDOS, AND TROMBONES HAVE IN COMMON? — Derek Hevel

Derek Hevel

Thompson mimicking Arora.

We have all seen the cover of David Arora's *All That the Rain Promises and More…*, which features an unlikely composition of a man (David) wearing a tuxedo, and holding a trombone and a cluster of chanterelles. The cover has surely elicited a lot of questions since it was first published in 1991: What led up to the decision to include such a scene on the cover of a mushroom field guide? What is the back-story here? Tell us more about that ambiguous smile…is it just a treasure hunter's delight or a bragger's teasing grin? Many of these questions have been answered in the decades, but many of us still yearn to step into the mind and shoes of David Arora himself to fully appreciate the making of mycological history.

Well, one man did just that. At this fall's Mushroom Weekend at Meany Lodge, hosted in a joint effort by The Mountaineers and PSMS, one of our club's newest members, Dylan Thompson, re-created this epic cover. Despite a cold and wet mushroom weekend, Dylan appeared out of thin air, dressed in a tux and carrying a trombone. It took only seconds for a few folks to comprehend what was going on, but as soon as it was clear, there were smiles all around and excitement for a re-enactment.

With a few of us in tow, Dylan found a good forest backdrop outside, and we began the photo shoot. Two or three folks gave him direction on just the right pose to closely replicate the original shot. After lots of test shots, we got a winning shot, plus some "making of" photos.

Thanks for the fun idea, Dylan, and we are glad to have joined you to mark another historical milestone for mycology!

FIELD TRIP REPORT, Nov. 2 — Brian Luther

This was a brand new field trip location. The facility was luxurious, with a big parking lot, a large inside meeting room, counter space with a sink, outlets, and microwave, lots of tables and chairs, and inside bathrooms—and it was even free. Its location was also good, with numerous options for mushroom collecting areas all around.

It was our first field trip after the annual PSMS wild mushroom exhibit, and we always get lots of new members. This year we had an incredible 141 members sign in, 50 of whom were on their very first field trip.

Our morning hosts included Lara Yuan, Johnson Zhuang, and Pei-Ru Liao, and they did a great job of getting us morning snacks and hot coffee. We all appreciated what you did—thank you!

Field trip guides included Andrew White, Vern Hodgson, Dan Paull, Andy Iwata, Rachel Hedlof, Karen & Clay Dawson, and Patrick Rice. Thank you for helping our new members!

This is the first time that I can remember that we've had the same number of mushroom species brought in as the number of members attending, and that's a lot of mushrooms! Several tables and benches were covered with fungi. Because we had so many members attending, I was unable to get around to helping everyone with their collections before the end of the day, being the only identifier on this field trip.

Carolina Kohler

Brian Luther identifying mushrooms.

A number of good edible species were found, but none in abundance; also it was so late in the season, many were past their prime. Some of the interesting nonedible species collected included *Tricholoma arvernense* and *Tapinella panuoides*. The smelliest mushroom was *Tricholoma sulphureum*, with a very strong, objectionable and putrid odor of coal tar gas.

Brian S. Luther

Tricholoma arvernense.

An excellent potluck at 3:00 pm attended by quite a few topped off the day and included some tasty hot dishes. A great team effort by many gathered all the specimens up, cleaned and put away all the tables and chairs, wiped the counter and sink, swept the floors and took all the garbage. We left with the place looking as good, or better, than when we got there.

Thanks to all PSMS volunteers who contributed to the fall field trips. Stay tuned for the announcement of the spring 2026 field trips that'll come out in early April. With so many forest fires this summer and fall, we'll be emphasizing going after morels.

We wish you all a great holiday season and a happy new year.

CITY FUNGI ARE EVOLVING TO SURVIVE THE HEAT—AND POSSIBLY INFECT HUMANS

Rodielon Putol

https://www.earth.com/, Nov. 10, 2025

Most people don't think much about fungi unless it's mold on bread or mushrooms on pizza. But behind the scenes, fungi—especially the microscopic kind—are everywhere.

earth.com

Urban mushrooms.

And now, a new study suggests that fungi are changing in ways that could put us at risk. The researchers took a close look at how fungi living in city environments are adapting to heat.

The team found that fungi in warmer spots within the same city seemed to be toughening up against heat. That is concerning, since the one thing that keeps most fungi from infecting humans is our body heat.

Fungi and Human Health

Fungi, like molds and yeasts, usually can't survive at 98.6°F—the average temperature of the human body. That's what makes us naturally resistant to most fungal infections. But this protective line, known as the thermal barrier, might be thinning.

A small group of fungi already know how to cross it. One of the most dangerous is *Candida auris*. It first showed up in a human patient in 2009.

Since then, it's been linked to thousands of infections each year in the U.S. alone. It doesn't respond well to drugs, spreads easily, and kills a lot of people. What makes *C. auris* different is that it can tolerate higher heat.

Researchers suspect that *C. auris* didn't always have this ability. It may have developed it over time, possibly owing to global warming. As outdoor temperatures rise, fungi face pressure to adapt or die. Some are adapting—and fast.

Studying Fungi from Across the City

To test how fungi are handling heat in cities, researchers from the Bloomberg School of Public Health at Johns Hopkins set out in Baltimore with candy. Yes, actual sticky candy. It turns out that taffy-like candy works well to pick up tiny microbes from city sidewalks.

The team picked four areas in the city: one hot, one above average, one average, and one cool. Then they checked how fungi from each site handled heat stress. What they found was unsettling.

Fungi from the hottest spots had less pigmentation. That may sound like a small thing, but it could mean a lot.

In cooler environments, fungi often make darker pigments— like melanin—to soak up heat. But in warm spots, less pigment may help them avoid overheating. It's a sign of possible temperature adaptation.

Fungi are Adapting Quickly

Back in the lab, the team exposed the fungi to high heat—above 131°F—and tracked how well they survived.

The fungi from warmer areas didn't just survive better. They also showed stronger heat resistance, even when they belonged to the exact same species as the ones from cooler spots.

One type of yeast they found, *Rhodotorula mucilaginosa*, isn't usually a big threat to people. But the sample taken from the hottest site handled heat much better than its cooler counterparts.

Even more surprising, a sample of *Cystobasidium minutum* taken from a sidewalk heated to 101°F grew just fine at human body temperature. That's not common for this species, and it suggests it's adapting to thrive in hotter conditions.

What This Means for the Future

"This study opens the door for future research into these adaptations and the identification of urban fungal species that may emerge as potential human pathogens in the near future," said Daniel Smith, a postdoctoral researcher at the Bloomberg School.

Smith chose the sampling locations using temperature data from the National Oceanic and Atmospheric Administration. He also confirmed temperatures by measuring the sidewalk and dirt temperatures himself during collection.

The results suggest that urban fungi might already be inching closer to overcoming the body's natural heat barrier. That's concerning because it means that fungi we used to ignore may one day cause infections we can't easily treat.

"These findings are consistent with the idea that high temperatures in an urban environment can induce fungal heat adaptations, thus narrowing the thermal barrier to human infection," said Arturo Casadevall, the study's senior author.

The Evolution of City Fungi

Right now, the findings are early and based on one city. The team emphasized that more studies in different cities are needed.

The researchers also noted several possible variables they couldn't fully control, like sunlight exposure, foot traffic, and animals.

"These data are preliminary, and we need more and larger studies of this kind to help us understand how fungi are adapting to rising temperatures," Casadevall said.

Even so, this study raises real questions. As cities get hotter due to climate change and urban heat islands, fungi are quietly adjusting. If more species evolve to withstand human body heat, the result could be a new wave of fungal infections—ones we may not be prepared to handle.

The study was published in the journal *ISME Communications*.

CRISPR SUPERCHARGES A MEAT-LIKE FUNGUS INTO A SUSTAINABLE PROTEIN POWERHOUSE

https://scitechdaily.com/, Nov. 19, 2025

A study released today (Nov.19) in the journal *Trends in Biotechnology* describes how scientists used the gene-editing tool CRISPR to improve a fungus's ability to produce protein while lowering the environmental impact of its production by up to 61 percent—and they achieved this without inserting any foreign DNA. The modified fungus has a meat-like flavor and is easier for people to digest than the wild form.

Xiao Liu

Fusarium venenatum. CRISPR turned a simple fungus into a fast-growing, meat-like protein source with impressively low environmental impact.

"There is a popular demand for better and more sustainable protein for food," says corresponding author Xiao Liu of Jiangnan University in Wuxi, China. "We successfully made a fungus not only more nutritious but also more environmentally friendly by tweaking its genes."

Animal agriculture contributes roughly 14 percent of global greenhouse gas emissions. It also requires large areas of land and significant amounts of fresh water, which are already under pressure from climate change and human activity. Because of these drawbacks, microbial proteins found in organisms such as yeast and fungi are gaining attention as a more sustainable alternative to traditional meat.

Why Fungi are Key to Cutting Food Emissions

Among the different mycoprotein sources that researchers have examined, the fungus *Fusarium venenatum* has become a leading candidate because its natural taste and fibrous structure resemble meat. It is already approved for consumption in several countries, including the United Kingdom, China, and the United States.

Despite these benefits, *Fusarium venenatum* has thick cell walls that limit the extent to which humans can digest its nutrients. Producing it also requires considerable resources. The spores must be grown in large metal tanks filled with a mixture of sugar and nutrients such as ammonium sulfate.

Liu and his colleagues wanted to determine whether CRISPR could improve both digestibility and production efficiency in *Fusarium venenatum* without introducing foreign DNA into its genome.

Gene Tweaks That Transform *Fusarium venenatum*

To test this idea, the researchers deleted two genes linked to the enzymes chitin synthase and pyruvate decarboxylase. Removing the chitin synthase gene reduced the thickness of the cell wall, making more of the protein inside the fungus accessible for digestion. Eliminating the pyruvate decarboxylase gene adjusted the organism's metabolic pathways so that it could create protein using fewer nutrients.

cont. on page 6

CRISPR Supercharges *F. venenatum* *cont. from page 5*

Their analyses showed that the resulting strain, named FCPD, used 44 percent less sugar to generate the same amount of protein as the unmodified strain and did so 88 percent more quickly.

"A lot of people thought growing mycoprotein was more sustainable, but no one had really considered how to reduce the environmental impact of the entire production process, especially when compared to other alternative protein products" says first author, Xiaohui Wu of Jiangnan University.

Reducing the Full Life-Cycle Environmental Impact

The researchers then calculated the environmental footprint of Full Life-Cycle Environmental Impact, from spores in the laboratory to inactivated meat-like products, at an industrial scale. They simulated FCPD production in six countries with different energy structures—including Finland, which uses mostly renewable energy, and China, which relies more heavily on coal—and found that FCPD had a lower environmental impact than traditional *Fusarium venenatum* production did, regardless of location. Overall, FCPD production resulted in up to 60 percent fewer greenhouse gas emissions for the entirety of its life cycle.

Comparing Fungal Protein to Animal Agriculture

The team also investigated the impact of FCPD production compared to the resources required to produce animal protein. When compared to chicken production in China, they found that myoprotein from FCPD requires 70 percent less land and reduces the risk of freshwater pollution by 78 percent.

"Gene-edited foods like this can meet growing food demands without the environmental costs of conventional farming," says Liu.

MUSHROOMS MAY STAY FRESH FOR 7 DAYS WITH SIMPLE STORAGE TRICK **Sophie Buchan**

https://www.lancs.live/, Nov. 18, 2025

Mushrooms are a versatile ingredient that can be used in a variety of dishes, but they can quickly turn slimy in the fridge, rapidly transforming from crisp and tasty to gooey and inedible. According to mushroom expert Elliot Webb, this problem might be prevented with one straightforward storage trick.

"One of the most common mistakes people make is leaving them in the plastic packaging they come in, as this traps moisture and accelerates spoilage. Instead, transferring them to a paper bag lined with kitchen towel provides better airflow and absorbs excess moisture, significantly extending their shelf life."

He added that whole mushrooms stored this way in the fridge could last up to seven days, compared to sliced mushrooms which typically last only one to two days. The key is keeping them whole and avoiding pre-washing them

THEY SEARCHED THE INTERNET TO IDENTIFY THE MUSHROOMS: THEY WERE POISONED

https://www.unionesarda.it/, Nov. 21, 2025

Two Italian women, aged 66 and 68, ended up in the emergency room after consuming a poisonous mushroom, *Omphalotus olearius*, that they mistook for the edible *Cantharellus cibarius*, the more common "chanterelle."

What would have misled them was a search engine they used to check their edibility.

The poisoning, fortunately, was not serious. Emergency room staff consulted the Mycological Inspectorate of the Gallura Local Health Authority, who confirmed the identification. The two women also brought some of the mushrooms they had consumed with them, allowing the technicians to quickly identify their poisonous nature.

"Our mycologists intervened immediately," explains Maria Adelia Aini, director of the Food Hygiene and Nutrition Service, "enabling health workers to administer the appropriate treatment.

Unfortunately, the use of websites and apps that cannot guarantee the necessary reliability is increasingly widespread. It is essential to consult our facilities and certified mycologists before consuming wild mushrooms."

GREEK COUPLE IN URGENT NEED OF A LIVER TRANSPLANT AFTER SUFFERING ACUTE LIVER FAILURE AFTER EATING WILD MUSHROOMS

https://www.news247.gr/, Nov. 21, 2025

A couple in northern Greece—a 65-year-old man and a 55-year-old woman—was diagnosed with acute liver failure after eating wild mushrooms.

According to information, they were transferred to AHEPA Hospital in Thessalonik, where they are currently being treated, after consuming mushrooms during an event involving mushroom gathering and eating in a region of northern Greece.

An immediate alert was issued by the Hellenic Transplant Organization (EOM), as both individuals must undergo an urgent liver transplant.

According to information from NEWS 24/7, the woman has already been accepted by a transplant center in Italy, with EOM urgently preparing the process for her air transport.

At the same time, the EOM is in contact with transplant centers in Italy so that her husband can also be accepted.

MUSHROOMS CREATE MUSIC WITH BIONIC ARMS USING THEIR OWN ENERGY

Michael Thompson

https://www.valleyvanguardonline.com/, Nov. 11, 2025

Mushrooms have found a new stage. In a creative mash-up of biology, electronics, and performance art, a UK-based project is using robotic arms to let fungi and plants play instruments, turning tiny electrical pulses into audible music and visual performance.

By reading the bioelectrical activity inside living organisms and converting those signals into precise arm movements, these non-human collaborators can strike drum pads, press synth keys, and even swap sticks for paintbrushes—offering a fresh way to experience the hidden rhythms of nature.

At the core of the project is a simple idea: living tissues produce electrical patterns. With sensors attached, those patterns can be translated into commands for robotic actuators. The result is a direct line from a mushroom's internal fluctuations to a physical action that produces sound.

The tonal output is shaped by a human collaborator who maps the electrical input to synth patches and drum machines, creating an electronic soundscape that reflects the living partner's internal state. The music isn't just an experiment in novelty—it reveals how rich and varied those electrical signatures can be.

Mushrooms playing keyboard.

UNUSUAL MUSHROOMS FOUND IN ABANDONED BOURNEMOUTH BINGO HALL

Richard McLaughlin

https://www.bournemouthecho.co.uk/, Nov. 19, 2025

A biohazard-based cleaning company encountered some peculiar looking mushrooms after it was hired to clean up an abandoned bingo hall in Westbourne.

Megan Johnstone, founder of Pro Clean Commercials which she runs with her business partner Jack Tozer, spent the day clearing out the interesting-ooking mold and fungi from The Grand Cinema in Bournemouth.

"I never seen anything like this on a job," she said. "This was new for me." She said the mold and growth was "pretty much everywhere" throughout building.

After posting photos of the unique mushrooms on Facebook, Megan said the post had received a lot of impressions and gained a lot of attention.

Shoveling up fungi in Bournemouth Theater.

The job took her and her brother four hours to clean out between the pair of them but involved "hacking away" at the infestation.

"The process was quite simple really. It was just a case of getting shovels, bagging it all up, and dealing with what was left behind."

Megan said she believes the building had been left in this state for "years and years" which had caused the large and usual mushrooms and mold to grow.

RESEARCHERS DISCOVER NEW TINY FUNGI SPECIES IN ALBERTA, CANADA

Bev Betkowski

https://phys.org/, Nov. 20, 2025

[abridged] Several species of tiny fungi completely new to science—and all from Alberta—have been discovered through University of Alberta research.

Three new evolutionary groups and 13 new species of "stubble fungi"—so named because they resemble beard whiskers—have been identified and described through a 13-year study, which also reported an additional 29 species found in the province for the first time, including nine in Edmonton.

The findings bring the total number of what are known as calicioids to 73 in Alberta, and "show the undiscovered biodiversity we have right in our own backyard," says lichen scientist Diane Haughland, a lecturer in the faculty of Agricultural, Life & Environmental Sciences who led the study now published in *The Bryologist*.

Found in areas ranging from a dog park in Edmonton's river valley and a southern Alberta farmyard to wetlands and foothills forests, the wee, pin-like fungi with large heads grow on shrubs like wild rose bushes and carragana hedges, on dead wood, and on native Alberta trees such as alder, poplar, and spruce.

The presence of the new species signals hidden richness across the province's Parkland Natural Region, which is often heavily altered by development for urban and agricultural uses, she adds. One of the discoveries, for example, marks the first time stubble fungi were found on wild rose bushes growing on agricultural land.

"Alberta is home to 13 new species that have not been found anywhere else on the planet, including a few in our own urban backyard. And while we tend to be blinkered and think our cities and parklands are not very interesting, they harbor exciting diversity that we don't necessarily understand or appreciate yet. It makes me wonder about the unique conditions that are allowing these species to live here."


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2025 PSMS WILD MUSHROOM SHOW

Derek Hevel

For our 62nd annual Wild Mushroom Show on October 25 and 26, we returned to Shoreline Community College for the fourth time. PSMS show chairs Milton Tam, Marion Richards, Derek Hevel, and Peg Rutchik are so happy about how it went!

First off, we were very busy, welcoming almost 3,000 guests. Some highlights included tasty mycophagy offerings, a streamlined sorting and tray arranging process for our mushroom display, wonderful giant art mushrooms in the entry, and a great new space for kids and educationa displays. We welcomed some iconic speakers like Michael Beug and Denis Benjamin. Other improvements included more signage, more intentional places for lines up to certain activities, and more breathing room for vendors. We all feel that we put on another amazing show.

Thank you to the mushroom collectors, who did an extraordinary job searching for all those great specimens. Our overall fruiting this year was not terrific, but the specimens brought in were unexpectedly generous, which shows how dedicated our collectors are. Please know that you are appreciated and YOU made the whole show happen.

Thanks to the leaders of the display activities—Wren Hudgins, Denise Banaszewski, Shannon Adams, Colin Meyer, Dennis Oliver, and Joe Zapotosky. Thanks to Noah Siegel, who led the entire sorting and identifying effort. Thanks to Irene Iwata at admissions and coordinator Peg Rutchik at volunteer/vendor/reentry check-in, two huge roles that they met with tremendous amounts of skill and patience. Thank you to membership chair Pacita Roberts for helping guests to become PSMS members. Thanks to our great speakers—Daniel Winkler, Noah Siegel, Michael Beug, Denis Benjamin, Katherine Glew, and Chad Hyatt. Thanks to Milton Tam for getting our lecturers on board. Big thanks to Cindy Ide and Shannon Stevens for cooking up some yummy mushroom bites for guests. Milton Tam again led at the cultivation table, where a record number of oyster kits

were made and sold out by early afternoon on Sunday. Thanks to IDers Brian Luther, Wren Hudgins, Noah Siegel, Michael Beug, and Colin Meyer for your time and expertise. Thanks to Marion Richards for engaging guests with all things mushroom art, including many skeins of mushroom-dyed fabric. Thanks to Paolo Assandri at books and merchandise sales, Dory Maubach at the microscopes and touch & feel tables, Kate Turner at the kid's tables, Brenda Fong for leading hospitality, Laurie Wu for the putting together the photo show, and Wren Hudgins for the ASK ME program. Richard Martija and Austin Johnson joined Andrew Sudangnoi and Derek Hevel in teaching people about fluorescent mushrooms in the glowing haunted house. Thanks again to Daniel Winkler, Colin Meyer, Wren Hudgins, and Stewart Wechsler for giving tray tours, which are always a favorite with the public. Thank you to the lichen table leads Katherine Glew and Dennis Oliver. Our treasurer Cindy Brewster (and assistant Megan Brewster) did a great job accounting for all the financials at the show. Thanks to Molly Watts, Milt, and Marion for organizing the vendors. HUGE thanks to Vern Hodgson and Sunida Bintasan for driving and navigating the rental truck, especially considering the added stop to the storage unit. Thanks to Derek, Kelsey, and Cindy for getting the SCC contract wrapped up. This year's graphic design for the poster, post cards, and digital media was done by Jarrod Taylor. Thank you again, Marian Maxwell, for helping to set up the volunteer shifts online and helping with so many communications leading up to the show.

Finally, thanks to all the volunteers who found a couple of hours or devoted their entire weekend to make the show successful. We again enjoyed working with you and we could not have done it without your hard work. A huge thank you to the loaders and unloaders of the truck, and those who set up and took down the show.

And so everyone is clear what it takes to put on a mushroom show, here's a list of all the volunteers not already mentioned above (with apologies to anyone we missed):

Christie Aesquivel
Jan Agosti
Jo Alex
Arlene Amaya
Grace Arend
Yves Arrouye
William Baker
Darlene Bakes
Denise Banaszewski
Janet Barturen
Cassandra Beaumont
Chris Behrens
Sunida Bintasan
Jacquelyn Bonjean
Paul Bonjean
Alina Boychenko
Mark Boyle
Jessica Breznau
Chris Bright
Tatiana Browning
Diane Bruckner
Peggy Bruster
Fanbin Bu
Bruce Busby
Chigako Butler
William Butler
Cath Carine
Patrice Carrol
Judith Cederblom
PC Chan
Echo Chang
Matt Chatham
Jane Chen
Joan Chen
Yan Chen
Fengling Cheng
Shane Chiao
Gordon Chodakauskas
Sara Clark
David Corley
Jenny Cunningham
Gianluca D'Alessandro
Fiona Dang
Richard Davis
Clay Dawson
Karen Dawson
Kendra Dedinsky
Erika Degens
Sebastian Degens
Thea DeYoung
Jill Dineen
Tom Doorn
Vivian Doorn
Josh Downes
Elizabeth Dunning
Lisa Dunton
Tom Eng
Laura Feinstein
Jane Ann Feldman
Kenneth Feldman
Julie Fetveit
Nathan Field-Patton
Lily Fisher
Michon Fontenelle
Amy Foster
Madeleine Fougere
Maria Gerace
Lance Gerasimenko
Brook Goddard
William Hawley
Rachel Hedlof
Gwendolyn Heib
Kaisee Herres
Robyn Hodges
Natsuyo Hodgson
Vern Hodgson
Jennifer Hsiao
Kai Huang
Suzi Ibach
Lori Idemoto
Irene Iwata
Judith Jacques
Gaia Johannesen
Austin Johnson
Debra Johnson
Julie Keister
Owen Kovarik
Candace Kukino
Wei-Ming Lam
Gail Landress
Alexandria LeClerc
Larry Lee
Jiaxin Li
Qingyang Li
Xiao Li
Pei-Ru Liao
Jane Lien
Meishiou Lin
Katherine Littman
Kitty Loceff
Jim Lund
Sue Lynette
Joy Ma
Qinglin Ma
Tracy Madole
Tenny Mallory-Canning
Peter Manias
Richard Martija
Marco Mazzoni
Tea McMillan
Asher Meyer
Izumi Mitsuoka
Daniel Monteagudo
Alison Moon
Ben Moore
Donna Naruo
Paul Nevin
Patty Nimmanant
Carolina Nurik
Marc Nurik
Tomoko Okubo
Rich Pakker
Pamela Pakker-Kozicki
Rupa Palasamudram
Jung Park
Edward Patton
Charles Perkins
Barbara Peterson
Mario Petrocco
Nguyen Pham
Lynn Phillips
Nicole Pifer
Steven Pollak
Ron Post
Stephanie Prince
Jason Qian
Natasha Quamily
Ken Renner
Paulina Reyes
Aaron Richards
Sarah Richards
Randy Richardson
Maimun Ringold
Eric Rosko
Tom Rutchik
Andrew Scheppe
Kelsey Scherer
Nicole Schmitt Zuber
Gwynne Schnaittacher
Isabel Sharp
Shelly Sharp
Maria Skalsky
Kathy Slattengren
Nataliya Slyusarchuk
Oleg Slyusarchuk
Skyler Spain
Jerry Stein
Kristin Stemke
Debra Stevens
Christopher Stringari
Rachel Su
Andrew Sudangnoi
Geneva Sullivan
PeiPei Sung
Reiko Takahashi
Reba Tam
Anne Tarver
Thaedra Thullbery
Feng Tien
Daniel Tobin
Tony Tschanz
Vincent Tseng
Kathyrn Turner
Joshua Vanveldhuizen
Hazael Vidales
Rita Vincent
Kai Voeks
James Wang
Jane Wang
Shaojun Wang
Yiwen Wang
Ashur Warner
Dave Weber
Wuqi Weber
Sara White
Brian Widmer
Jill Williams
Richard Williams
Sylvia Rose Wilson
Misha Wipplinger
Jamie Wise
Theodora Wu
Zhaopeng Xing
Shujun Ye
Kay Yesuwan
Adam Young
Joanne Young
Irene Zuo

Great work, everyone! Only 11 months until we get to do it again next year!