

SPORE PRINTS

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TEAM FUNG-ICICLES TAKE HOME ICE CUP THIS YEAR AS SNOW CARVERS LEAVE THEIR MARK

Ethan Butterfield

<https://www.nnsl.com/>, Mar. 22, 2022



Team Fung-icicles' winning creation features several different mushrooms and other elements of the fungal world.

YELLOWKNIFE, NWT - The Fung-icicles team Maxence Jaillet, Madeleine Tetreault, and Roxanne Davis took home \$1,500 and the Ice Cup as the winners of the second annual community-based snow carving contest, March 20.

"We were so happy," Tetreault said after the team's frozen fungi forest was selected as the top entry. "We worked so long on it, it was so fun.

Despite the carving process going smoothly, it was a time consuming task for the triumphant trio to ensure everything was ready prior to the voting period, March 15 to 20.

"Because it was so elaborate, we were taking off a lot of the snow from the big chunk, and moving it around, and making it like a 3D sculpture," said Tetreault.

Their winning creation didn't remain exactly as planned for long.

"There was like two mushrooms that we had that were a little bit smaller and they kept getting broken and people kept jumping on them all the time," she said. "So like even before the competition was kind of over, we had to say goodbye to a couple of mushrooms."

The idea to carve a fungi forest out of a snow block was something that was inspired at the last minute.

"We had a few ideas that we were thinking about doing before that," said Tetreault. "But I had been working on the (snow) castle all month, like carving inside it, and so kind of near the end when the competition was about to start, I really wanted to try something a little bit more difficult and really push myself this year.

"So we came up with this more elaborate idea," she said. "I'm really into mushrooms and it just kind of came to us."

According to the team's calculations, their snow carving took close to 45 hours to complete.

Tetreault said she would love the opportunity to tackle more snow carving challenges as they arise. "I am so into it now," she said. "I just had such a blast doing that."

WHAT'S IN A NAME?

Intermountain Herbarium,
Utah State University

<https://herbarium.usu.edu/>

Scientific Names

A scientific name has two parts: the genus name and the species epithet. *Equus* is the genus name for horses and their close relatives. There can be many species in a genus. Another species in the genus *Equus* is *Equus burchellii*, the plains zebra of Africa. The species epithet *burchellii*, combined with the genus name *Equus* sets the zebra apart from the horse.

The system of scientific names is an information system that organizes life forms into groups, based on their biological and evolutionary relationships. The largest of these groups is called a "kingdom." There are five kingdoms, one of which is the Fungi. Within the Fungi, as in all the kingdoms, the members are organized into ascending ranks. Closely related species are grouped into the rank of genus.

Because "systematic" groups are based on biological and evolutionary relationships, all members of a group are similar to one another. For example, all species in the fungus genus *Puccinia* are plant rusts, a kind of parasite that grows on live plants. Genera are grouped into families, whose members may show more variety but are basically the same kind of organism. The genus *Puccinia* is placed in the family Pucciniaceae. All the genera in the family Pucciniaceae are plant parasites.

Common Names

Is it mold or mildew in that basement corner? Is the bright umbrella-shaped fungus you have found beneath a tree a mushroom or a toadstool? Have you ever seen a horse wearing a Dryad's Saddle or spread your morning toast with Witch's Butter? All the above terms, like toadstool, are common names. Common names are given to organisms in the language of the people who live with them. For example, "horse," "cheval," "el caballo," and "pferd" are all common names for the organism with the scientific name *Equus caballus*. In some countries, if a horse possesses white patches on a darker coat, it can also be called by the name of "Pinto." Its scientific name will still be *Equus caballus*, because

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MEMBERSHIP MEETING

Scott Maxwell

The membership meeting on April 12, 2022, will be a “hybrid” meeting, both in-person at the Center for Urban Horticulture and virtual on Zoom. Masks will be required for attendance in person. We will start letting people into the CUH meeting hall at about 7:00 pm and into the Zoom meeting at about 7:15. The lecture will begin at approximately 7:30 pm.

As has been our theme this winter, we once again are featuring one of our talented members of PSMS, Katherine Glew, who will present “What Everyone Should Know About Lichens.” Lichens are a vital yet many times overlooked part of our forest ecosystems, rangelands, and rural environments. Katherine will provide us insights into their environmental, ecological, and commercial value as well as their biological make up, diversity, and beauty. An entity that goes by one name, a lichen is actually the symbiotic relationship of multiple organisms.



Dr. Katherine Glew

Katherine Glew, Ph.D. is currently Associate Curator of Lichens at the University of Washington Herbarium. She has taken part in lichen studies around the world and curated the lichen collection at the Field Museum of Natural History in Chicago. After a 20 year career as a high school biology teacher, she returned to the University of Washington for her Ph.D. researching lichen taxonomy and alpine vegetation ecology in the Olympic and Cascade mountains. Following graduation, she completed post-doctoral research in Bergen, Norway. In addition to research, Dr. Glew has taught biodiversity, ecology, and cryptogamic botany at the University of Puget Sound. She currently heads a lichen study group at the University of Washington.

Katherine has supported PSMS for many years, hosting lichen forays and ID clinics and supporting our annual show, adding to the exhibit diversity and contributing to public knowledge surrounding these interesting symbionts.

Note: Katherine will be leading a local PSMS outing the weekend after our general meeting. A short description and signup opportunity will be posted under “Events” on the PSMS website at www.psms.org.

CALENDAR

- April 12 PSMS membership meeting, 7:30 pm (in-person and via Zoom)
- April 18 Board meeting, 7:30 pm (via Zoom)
- April 19 *Spore Prints* deadline

BOARD NEWS

Su Fenton

Derek Hevel and Marion Richards, co-chairs of the PSMS annual **Wild Mushroom Show**, have picked out a date and are looking at possible venues. If you haven’t volunteered for the show yet, you should seek out Luise Asif and let her know you are interested. Luise, as you might not know, is the volunteer coordinator. Start with her, and she will connect you to the right people. The show is great fun, and they always need a lot of bodies to throw at the myriad of tasks needed. We hope it will resemble pre-COVID times. I’m hoping for the tasty mushroom soup again! Exciting news, hot off the press—**potlucks** will happen again at our beloved field trips. As the COVID restrictions are starting to ease a little, this is one of the signs of a return to normalcy in the PSMS world. This year’s **Golden Mushroom Award** goes to Scott Maxwell! We are very excited for him. It is well deserved after his many years of service to the club.

GOLDEN MUSHROOM AWARD

PSMS Board of Trustees

We are happy to announce that the recipient of the 2022 Golden Mushroom Award is Scott Maxwell. As a member since January 1978, over 44 years, Scott has actively supported most activities of PSMS, including the annual wild mushroom shows, Mushroom Maynias, survivor’s banquets, holiday extravaganzas, general meetings, the Ben Woo Forays, and field trips. He acted as a field trip guide prior to formal guided field trips. In mid-May of 2021 he stepped up from board member to Vice-President and program chair and has arranged for speakers for our club since then. He has helped to establish methods to continue club activities during COVID-19, including setting up hybrid meetings to allow maximum member participation. He has had a long-standing service and dedication to our club. Congratulations, Scott, on your Golden Mushroom Award and being re-elected as Vice President!

CHANGES COMING TO FIELD TRIP GUIDING

Wren Hudjins

On Saturday mornings of field trip weekends, the club offers new members a chance to go out foraging with a mushroom guide. These opportunities, generally lasting about three hours, aim to teach beginners to identify good mushroom habitat so that they can hunt on their own afterwards. The program is very popular but has a few problems related to its popularity:

1. Often there have not been enough guides to safely take out the number of new members wanting to go.
2. Some members with some experience have pretended to be newcomers in order to get a spot in a guided group, resulting in true beginners being left behind.
3. The sign-up process for guided groups has not been ideal. When more people want to go than there are spots available, there has been competition for spots.

Problem 1 is being addressed by training more guides, who should start being available about halfway through the Spring 2022 season.

Problem 2 will be addressed by keeping a cumulative record of the names of members we take out. We can compare the list of those who are signed up to go out on any given day with the list of those we have already taken out.

To address problem 3, we are changing how members sign up for the guided group experience.

Starting about Tuesday of every week before a field trip, I will get confirmation from the guides regarding which guides expect to be available that Saturday. Guides can choose how many members to take out, up to a maximum of 10. I will then create one sign-up sheet per guide and put those online on the PSMS website under “event registration.” New members wanting a guided group experience will have two days (Wednesday and Thursday) to sign up for a spot. If I know something about a particular guide’s plans, I’ll put that on the sign-up sheet. One guide, for example, may want to lead a family-oriented trip.

Sign ups will close at midnight on Thursdays before field trips so that I can print the lists and take them with me when I go to field trips early on Friday mornings to scout where we can take groups. We’ll have one paper sign-up sheet at the field trip itself—first come, first served—for those for whom the online sign up is inconvenient.

What I’m describing is an untested plan, and we’ll just have to try it out. Obviously things could happen here. A guide who says he or she is available on Tuesday, suddenly becomes unavailable on Friday, after people have signed up for that group. We’ll just have to work things out. I’ll appreciate your patience as we do work on this.

Other changes of note:

Having a whistle is still a requirement for going out in a guided group, but we are no longer giving them away. You have to bring your own.

Attendance at the safety talk at 9 am is required to go out in a group. Late arrivals, even if you have signed up for a spot in a group, will not have heard the safety procedures we use and will not go with us.

In the past we have not been strict about the 10 member limit in a guided group. Starting this year, we will be.

We don’t guarantee finding edible mushrooms, but we will bring you back safely out of the woods and we will educate you about habitat. For those of you interested in learning to identify your mushrooms, everything you find will be identified.

AMAZON SHOPPERS: CHOOSE PSMS ON AMAZONSMILE

Brenda Fong

PSMS has registered with AmazonSmile, so that the Amazon purchases you make can benefit PSMS. Whenever you shop at Amazon, just designate the Puget Sound Mycological Society as your charity and Amazon will donate 0.5 percent of the price of eligible purchases to PSMS. “Same products, same prices, same service.” It’s easy to get started; just type

<https://smile.amazon.com>

into the address bar of your browser.

MONDAY ID CLINICS WILL START MAY 2 FOR SPRING 2022

Danny Miller & Wren Hudjins

We plan to resume ID clinics at the Center for Urban Horticulture on Mondays between 4:00 pm and 7:00 pm starting May 2, 2022. This is the first Monday after the first field trip. As of now, masking will be optional. The important thing to us is that you respect the choices other people make, even if they differ from your choices. The end date will depend on how good a season it is and will be announced on the PSMS home page.

As we are writing this, we are in a lull between two COVID variants, so we’ll outline our plans for the ID clinic knowing that the situation may change by the end of April. *Please check our home page at www.psms.org before coming to an ID clinic* to verify that one is being held that day and if there are any special rules.

ENOKI MUSHROOMS RECALLED FOR POSSIBLE LISTERIA CONTAMINATION

Linda Larsen

<https://foodpoisoningbulletin.com/>, Mar. 21, 2022



“Yes” brand Enoki Mushrooms are being recalled for possible *Listeria monocytogenes* contamination. No illnesses have been reported to the company to date in connection with this problem. The recalling firm is T. Fresh Company of City of Industry, California. The mushrooms were imported from China.

Lot number 6021053 was distributed from California and Texas to retail stores through produce distributors. Traces of *Listeria monocytogenes* were discovered by California Department of Public Health sampling. The mushrooms are packaged in a pink and transparent plastic packaging, with the “Yes” logo for the 150 gm (5.25 oz.) size, and light blue and transparent plastic packaging with the “Yes” logo for the 200 gm (7.5 oz) size.

What's in a Name?, cont. from page 1

a Pinto's unique color does not make it a different animal from any other *Equus caballus*. In horses, color is not a "diagnostic characteristic."

Diagnostic characteristics are those features that make one particular species unique from all other species. While an organism can have common names in many languages, it possesses only one scientific name, in Latin. This name is unique, only being used once in science to describe an organism.

Scientists carefully research and study the relationships between fungi and other forms of life in order to understand them and assign scientific names based on their understanding. Why do they work so hard, when the people who live with the organisms have already given them common names? Why have both?

Why Have Both?

First, not all organisms have a common name. In the Fungi, many species live in the soil and escape notice in everyday life. Others are not edible or, at this time, not economically important and are ignored. These fungi will probably never receive common names, though they all have scientific names. This name duplication cannot happen with scientific names. Their unique status is enforced by the International Code of Botanical Nomenclature's rules for creating a single "valid name." The procedure includes publishing a Latin description of the organism.

With fungi, as with all organisms, common names can borrow from mythology or local history and are often descriptive of the physical properties of a fungus. The fungus genus name *Geastrum* is a combination of the Latin *Ge*, meaning "earth," and *astrum*, meaning "star." The common name used for all the species in this genus is "earthstar."

Although unique, a scientific name may change. As improved methods of research provide scientists with more information on species' evolutionary relationships, their scientific name is sometimes changed to reflect this better understanding. The fungus may be placed in a different genus or family. The change from evaluating fungi with the naked eye to the use of a microscope to examine spores was one improvement in research that resulted in name changes. More recently, the assignment of names that accurately reflect biological relationships has been helped by the highly detailed spore images that result from scanning electron microscopy (SEM) and DNA analysis.

THE ABSOLUTE BEST WAYS TO KEEP MUSHROOMS FRESH

Molly Harris

<https://www.tastingtable.com/7, Mar. 10, 2022>

Spoiled produce happens to the best of home cooks. But when the produce is something that is particularly delicate like mushrooms, it can be even more frustrating since they can spoil so quickly. But with the right preparation and care, you can keep mushrooms fresh and ready to use for much longer than you might expect. Whether you want to store them for the long term or simply want them to stay as good as the day you bought them for a week or so longer, there is a way.

From storing the mushrooms in the fridge to drying them out (to be rehydrated much later), you can take a few different approaches

to preserving mushroom freshness. But one of the most important things to consider when storing mushrooms is the humidity of their environment. After all, it is moisture that the mushrooms release that causes them to spoil more quickly. In the right setting, though, that moisture will be absorbed.

Use the Original Packaging with Ventilation

You might be surprised to learn that mushrooms can actually thrive in their original packaging. However, that does depend on how exactly the mushrooms were packaged; they need holes in the covering wrap to allow moisture to escape. Again, mushrooms release moisture. When the moisture can leave the packaging, the mushrooms stay dryer, which in turn prevents them from spoiling so fast. So, if you plan to use your mushrooms within a few days, just punch a few holes in the plastic-wrap packaging if it doesn't already come with a few holes in the top.



Wrap Them in Paper Towels

To store fresh mushrooms for a little longer, up to a week or so, you will need to remove them from the original packaging and place them into a more absorbent storage container so the excess moisture that is given off can be wicked away more easily. That's why it is important to use good materials to store mushrooms in the fridge for a longer period.

To begin with, you should wrap the mushrooms in paper towels which will be the first layer of absorption. Once the mushrooms are bundled up, you can place them in a bag that you do not seal. While a plastic bag will work, placing the wrapped mushrooms in



a paper bag is even better because the paper bag acts as a second absorbent layer. Regardless of the bag you use, avoid stashing them in the crisper drawer, which holds in too much moisture for the mushrooms.

Cook and Freeze Mushrooms

If you know you cannot use the mushrooms you have before they spoil, then you might want to consider an even longer-term storage method. Freezing is definitely one way to keep mushrooms good for months to come. You will have to invest a little more time and effort into preparing them, but once the mushrooms are ready for storage, you'll be glad to have them on hand for all kinds of cooked dishes. Keep in mind, mushrooms will not be as good for fresh use after being frozen because their texture will change, as BBC Good Food explains.

To freeze mushrooms, you can begin by sautéing them, broiling, or roasting the mushrooms or even steaming them—whatever cooking method you prefer.



Once the mushrooms are cooked, you can flash-freeze them on a baking tray and then add them to an airtight container to be placed in the freezer for the future. Just remember that this process needs to happen before the mushrooms start to spoil for the best results.

Dry Mushrooms in the Oven

Another method for long-term storage is to dry the mushrooms out using a dehydrator or simply your oven. This method is great for a number of cooked dishes that call for mushrooms because

they can regain their original taste and texture when soaked in a liquid. So, adding them to stews, soups, and casseroles are great options when you have dried mushrooms on hand.

To dry mushrooms in the oven, you'll need to use a low temperature over a long time frame like most drying processes. Using this method, all of the moisture inside of the mushrooms, which already have a very high water content, will be cooked out and evaporated. Once the mushrooms have dried and do not contain any more moisture, you can store them in an airtight container in the pantry until you need to use them.



So, evaluate how long you need your mushrooms to stay good and how you'd like to use them. With that knowledge, you can choose the best storage method to suit your needs.

MUSINGS ON MUSHROOM POISONINGS: AN EPIDEMIC OF CASES DURING THE PANDEMIC

Greg Marley

Mainly Mushrooms, Maine Myco. Soc. via
Fungi Kingdom News,
Pioneer Valley Myco. Assn, winter 2022

2021 is coming to a close with alternating waves of rain and snow across Maine; a fitting end to one of the wettest and most abundant mushroom years I have experienced. We all found our fungal friends in, at times, overwhelming abundance and diversity of species this year. This cornucopia of mushrooms coincided with an explosion of interest in all things mushroom sweeping the American consciousness. It is fueled by an interest in foraged food, natural health supports, and an appreciation of the range of edible and medicinal fungi that has been growing for decades. Three other factors came together recently: access to nature as pandemic stress-relief, the movie "Fantastic Fungi," and the increasing popularity of social media sites devoted to mushrooms. It seems like everyone is mad about mushrooms!

New England is a treasure house of edible mushrooms with around 40–50 different species commonly collected and eaten. Mushrooming, "the quiet hunt" as the Russians say, calls on us all to bring our knowledge and skills to bear as we develop an understanding of the species sought, the habitat they are likely to inhabit, and the awareness of terrain and microclimate variations as we search out our quarry. It also engenders the same rush of emotions when success results in a full basket and the same tendency toward gluttony as we collect and sometimes eat more than we need. Yes, mushroom hunting is wild fun.

The dark side of wild mushrooms is, of course, the risk of poisoning. The danger is real; New England is home to about as many toxic mushrooms as edibles and 5–10 species that can cause serious and even life threatening poisonings. The same excitement and interest that has perhaps tripled the number of new members to the Maine Mycological Association is also seen in an increasing number of people sickened after eating the wrong mushroom, or too many mushrooms, or undercooked mushrooms that require full cooking. Thirty-five years ago I was one of the people who ate the wrong mushroom (*Sutorius eximius*, the lilac brown bolete) and ended up in the hospital emergency room, much to my chagrin.

Though I had learned about toxic mushrooms before, the experience of 12 hours of gastronomic pyrotechnics fueled my study of toxic mushrooms and mushroom toxins.

For the past twenty years I have served as a volunteer mushroom identifier for the Northern New England Poison Center (NNEPC) and occasionally also for Massachusetts and Rhode Island. Over recent years, the number of cases I cover that involve clear symptomatic mushroom poisoning has increased incrementally as mushroom foraging has increased. This year the NNEPC saw a significant increase in poisonings of foragers and their families and friends resulting from eating the wrong mushroom or in the wrong way. I was recently reacquainted with a phenomenon that may, in part, explain some of the mistakes people make, especially when [they are] a new or less experienced forager. The Dunning-Kruger Effect is where someone with a little knowledge assumes they know a great amount about the subject and makes decisions based on assumptions of knowledge that just isn't there. This assumption of knowledge is akin to "they don't know what they don't know, and they don't know that they don't know it." As Charles Darwin wrote in his book *The Descent of Man*, "Ignorance more frequently begets confidence than does knowledge."



Dunning-Kruger Effect.

Let's be honest and admit that we have all fallen prey to this cognitive bias and have assumed more competence than we had, especially those of us of the male persuasion. In content areas where I have spent years learning, practicing, and refining my knowledge base (subjects that others see me as expert in) the more I learn, the more I can see and am willing to acknowledge just how much I still have to learn. And without a doubt, mushrooming is a constant learning curve. We are exposed to perhaps two thousand species in Maine, with a constantly shifting taxonomy and a growing base of knowledge about the fungi! Keeps it fun though... Let's look at some examples of toxic mushroom mistakes made this year, the basis of the mistaken thinking and some of the mushrooms consumed in these cases:

Magical Thinking

Magical thinking is perhaps the scariest basis upon which to eat a wild mushroom. This happens when someone comes upon a mushroom or a group and believes they are beautiful and natural and must be edible based on a belief of their goodness, or another non-rational perspective. We had an adult couple in New England cook and eat *Amanita virosa*, the destroying angel, based on this thinking [ed. note: In New England, there are a number of very similar white *Amanita* species that go by the common name "destroying angel." Here, the author groups them all under the

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Musings, cont. from page 5

European name *A. virosa* because of the taxonomic uncertainties. The important thing to know is that they are ALL deadly toxic]. They ended up hospitalized with severe liver damage. I have seen people poisoned by a number of different mushrooms based on magical thinking. In this situation there is often NO knowledge base of mushroom identification, just an assumption of goodness.

Magical thinking is again increasing because of all of the great research supporting the therapeutic use of certain psychoactive mushrooms and the rampant media coverage of the hope and promises of psychoactive mushrooms in cognitive health and mental health. As a mental health clinician (and child of the 1960s) I too am excited by the clinical findings supporting appropriate use of psilocybin- and psilocin-containing mushrooms in management of depression, anxiety, and trauma. If accurately identified and used in appropriate settings, these mushrooms rarely cause problems other than for those with heightened anxiety or in very young children. Mushrooms with psilocybin are not abundant or well known in Maine, but a different psychoactive mushroom, *Amanita muscaria*, is quite common and, this year, quite abundant. These mushrooms, along with several common related Amanitas, contain ibotenic acid and muscimol along with small concentrations of muscarine. When eaten, they trigger a complex of effects including nausea, vomiting, shakes, agitation, deep somnolence, and sleep as well as intoxication and visions. It can be a hard ride, especially for someone eating the mushroom believing they are edible! This year the NNEPC received several cases where these mushrooms were eaten, either as food or for their psychoactive effects, and the resulting strong negative symptoms described above brought people into the emergency department for care. We strongly recommend avoiding the Amanitas for those seeking visioning or a recreational experience!

Assumptions of Edibility of a Whole Group of Mushrooms

This is a mistake often made with the boletes, that large and diverse group of fleshy pored mushrooms. It happens pretty frequently in people (often summer visitors to this region) who learned their mushroom foraging skills in Europe, especially Eastern Europe. They believe that all boletes are edible except for some of the red-pored blue-staining species. This has resulted in people cooking and eating *Boletus huronensis* or *Sutorius eximius* in New England and experiencing severe gastrointestinal distress for many hours! Every year over recent history we have seen sickening with both species and 2021 was no exception.

Mistaken Identity

The look-alike challenge can happen in many groups of mushrooms and is a mistake most common among new mushroom foragers who assume they know more than they do. People mistaking *Boletus huronensis* for one of the variants in the *B. edulis* group has occurred many times in recent years. The most common case of mistaken identity seen this year and every year is the person who finds the glorious caespitose cluster of orange mushrooms and believes it is the mother lode of golden chanterelles when in reality they are a typical cluster of the toxic Jack O'lantern mushroom (*Omphalotus illudens*). The result is almost always 5–7 hours of severe nausea and vomiting. Chanterelles are golden yellow and never grow in clusters of more than 2 or 3 together. Never eat a

mushroom unless you are 100 percent sure of the identity and the edibility; when in doubt, throw them out!

Assuming an Edible Mushroom is Edible Raw or Undercooked

There are several great edible mushrooms commonly eaten and enjoyed that are toxic if eaten raw or undercooked. In New England, sickening by raw or undercooked mushrooms is chiefly seen in honey mushrooms (*Armillaria mellea* and related), chicken of the woods (*Laetiporus sulphureus* and related), and blewits (*Lepista nuda*). Each of these species caused sickenings this year when they were eaten undercooked or raw. We have also seen this in morels. Almost all mushrooms must be cooked to aid in digestion and though not many are actually toxic, they will sicken some people when eaten raw.

Multiple Meals of the Same Mushroom

As mushroom madness sweeps the nation, I am witnessing a developing level of competitiveness among certain foragers, especially some who have been sipping the Facebook Kool-Aid. People strive to collect and eat as many species as possible and work to exceed others in both diversity and volume of mushrooms eaten. This can lead to problems associated with gluttony. It has also shown that eating the same mushrooms several times a day over successive days can sometimes lead to an overwhelmed digestive system. In an über-abundant mushroom year like 2021, many people experienced the resulting “challenges.” I am aware of several cases of uncontrollable diarrhea following overconsumption of benign mushrooms like black trumpets or maitake/Hen of the Woods. I experienced this in mild form this year from a bountiful *Boletus huronensis* abundance of shaggy *Sutorius eximius* in soup eaten over several days. The most common symptom is diarrhea and a sense of bloat, but others report being bound up. It may last for days.

Pushing the Boundaries

A recently seen and growing phenomenon. As mushroom madness morphs into a competitive sport (BAD idea guys!) a certain small part of the community strives to outdo others and post their feats of bravery (or madness) on social media. They may not post the mushrooms that tasted bad or left them nauseous but may brag about the new species they tried for the first time and how they are pushing the limits on edibility. This is leading to people taking more chances and more people getting sick. If you are someone who can eat and digest Scleroderma puffballs with impunity, please do not push others to eat them. MOST people who eat this group rapidly develop intense GI difficulties! There is a Northeast mycophile who hosts events called “Eating Rare Mushrooms” or something similar. It is a scary trend.

About 37 years ago a small group of mushroomers were on a workshop with a well-known and respected mycologist. They found an abundant collection of what was initially identified as *Ramariopsis kunzei*, a beautiful pure white coral mushroom. It was cooked and eaten, and at least five people were severely sickened and three were placed inpatient in hospital for several days as the result. There is a closely related mushroom named *R. lentofragilis* that can only be distinguished from *R. kunzei* by use of a ferrous sulfate color change. It triggers very severe symptoms, possibly including liver damage. We had a case of people hospitalized after eating a mixed group of mushrooms this summer where one was

later identified as *R. lentofragilis* by our friend Willow Cullen Torrey. Let's all go slow. Be deliberate and a bit conservative, especially with new and rare mushrooms. I often eat 35–45 different mushrooms in a year but am very conservative with what I choose to eat or to share. 1986 was my only significant sickening!

FUNGI COME FIRST IN THIS LINE OF MUSHROOM-INFUSED VODKAS Kara Newman
<https://modernfarmer.com/>, Mar 20, 2022

Originally, Joe and Wendy Rizzo, co-owners of Mushroom Spirits Distillery, an offshoot of Ithaca, New York, mushroom farm Blue Oyster Cultivation, had planned to make vodka—but not mushroom vodka.

“Then it hit me,” Joe recalls. “We’re a mushroom farm. We should be doing mushroom alcohol. If someone is going to do it, it should be us. We’re the mushroom people.”

Now, each variety is given loving attention, resulting in [an initial] lineup of six mushroom-infused vodka bottlings: Hen of the Woods, Enoki, Shiitake, Destroying Angel,* Pleurotus, and Spore [Agaricus?]. Each is indeed different, showcasing the subtle, earthy nuances and umami of each different mushroom.



Mushroom vodkas, Mushroom Spirits Distillery.

While they’re not the only farm to turn agriculture into booze, what’s notable is how they’ve done it in a way that keeps the mushroom crop front and center.

The Rizzos’ journey began in New York City, where Joe taught botany and life science at a Brooklyn middle school. Mushrooms turned out to be the right fast-growing crop to keep students’ attention as a science experiment. Around 2009, the husband-and-wife team took a big leap, leaving the city for the Finger Lakes region, where they set up a mushroom farm, the cheekily named Blue Oyster Cultivation.

While the distillery launched in October 2020, it wasn’t really a pandemic project; it had been a work-in-progress for six or seven

**I assume in name only, as the real Destroying Angel (several similar, closely related species in the genus Amanita) are not only toxic but deadly.*

years prior—a consultant hired, the paperwork and permits filed. “We had no choice, had to keep pushing forward,” Joe remembers. “There was no turning back.”



Mushroom Spirits Distillery display.

With a farm distillery license in hand, they set up shop about 20 miles north of Ithaca, right along the Cayuga Wine Trail, with a distillery, tasting room, and bar serving drinks such as Mushroom Manhattans and Mushroom Moscow Mules.

Although Joe had experimented with distilling mushrooms—vodka, after all, can be made from any raw material—he didn’t like the final result: “It gets lost, it’s

such a subtle flavor.” Instead, he sources the raw ethanol, made with New York state corn, from Albany’s Oligan Distilling, and runs it through a column still at the Mushroom Spirits facility before infusing it with the mushrooms produced at the Rizzo farm.

“There are some farm-to-spirit places, those are great, some make beautiful spirits, but we’re looking to focus more on the mushroom aspect of it,” he notes. By starting with the blank canvas of a neutral spirit, “whatever flavor you’re getting is from the mushrooms.”

Yet, with that came some particular challenges. “[Mushrooms are] a very uncommon ingredient in alcohol,” Joe acknowledges. For each mushroom bottling, the Alcohol and Tobacco Tax and Trade Bureau, the branch of the federal government that regulates spirits, also directed the Rizzos to petition the Food and Drug Administration for approval.

“They wanted to be sure each individual mushroom we were using wasn’t poisonous or so-called ‘magic mushrooms,’” Joe explains.

The first year of the distillery was a rocky one, Wendy recalls, although it was balanced out by “one of our best sales years” for the mushroom farm, strengthened by consumers purchasing fresh produce to cook at home during the pandemic.

In 2021, sales at the tasting room and farmers’ markets accounted for about 90 percent of sales, along with distribution to local restaurants and bars. In 2022, that’s likely to shift, with a greater emphasis on distribution to retailers and on-premise venues and more focus on sales in New York City. Considering how many bartenders are embracing savory and umami flavors in cocktails—including many experimenting with mushroom infusions on their own—this is likely a promising development.

Further, the *New York Times* declared mushrooms as 2022’s Ingredient of the Year. So, while the Rizzos are also planning to release a lineup of non-infused spirits, including a bourbon, a rye, and a barrel-rested gin, they also know this is not the time to stop with the ‘shroom spirits. So Joe is currently working on a bourbon infused with a complex blend of multiple varieties.

“When it combines with the bourbon flavor, it’s just going to make a really interesting, unique taste,” Joe says. “It will be a subtle flavor, like with the vodka. But they have their own character, that’s for sure. The ethanol is just a vehicle for the mushroom flavors, I think.”



**FUNGUS-RAVAGED BAT PROPOSED FOR
ENDANGERED SPECIES LISTING**

John Flesher

<https://abcnews.go.com/>, Mar. 22, 2022

TRAVERSE CITY, Mich. - Federal officials on Tuesday proposed designating the northern long-eared bat, once common but ravaged by a deadly fungus [*Pseudogymnoascus destructans*], as an endangered species.

The population has plummeted since colonies infected with white-nose syndrome were spotted in New York caves in the mid-2000s. The bat is likely to go extinct without a dramatic turnaround, the U.S. Fish and Wildlife Service said.



Wisc. Dept. of Natural Resources

Northern long-eared bat. The Fish and Wildlife Service listed the northern long-eared as threatened in 2015. Since then, white-nose syndrome has spread across nearly 80 percent of its range and is expected to cover it all by 2025, prompting the proposal for the more severe designation.

“It’s going to be difficult, but we’re going to do everything humanly possible to stop the decline,” said Charlie Wooley, director of the service’s Midwest region.

Named for white, fuzzy spots that appear on infected bats, white-nose syndrome attacks their wings, muzzles, and ears as they hibernate in caves and abandoned mines. It causes them to become active and sometimes fly outside too soon. They burn up their winter fat stores and eventually starve.

GLUTEN-FREE POISSON d’AVRIL **Dick Sieger**

For your fish, you’ll need a Bonehead Sucker or you may debone a fillet of Basidio Carp with the gills removed. Pepper it with salt.

Curry a Horse mushroom. (Vegetarians may substitute a Cauliflower mushroom.) Add enough but not too much inflated *Coprocephalus*, which is common on our state capitol grounds. Mince the mushrooms and then brush them clean.

Combine the fish with the mushrooms and add just a little bit of poultry—a small swallow will do. Prepare the mixture in the usual way. Fry in a warm oven and garnish with a seedless pomegranate. Finally, pass everything through your basket strainer. *Voila!*

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