Blue Ridge Mycelium

Edition 1; Winter 2024

In this edition:

The Spore Drop

A Letter from the President

Pat Mitchell demonstrates the proper way to pose with a bolete. Photo by Pat Mitchell.

Dear BRMS,

I'm Pat Mitchell, President and Co-founder of the Blue Ridge Mycological Society, and I'm thrilled to pen my first "Spore Drop" to you. I want to briefly introduce myself and the club, and hopefully inspire you all as we imagine what BRMS could become.

My fascination with fungus began during a morel hunting adventure in 2010, which fed my life-long love for the natural world as much as it fed my stomach. I was hooked, and I began to cultivate a more intimate connection with the forest. In 2016, I attended the North American Mycological Association (NAMA) foray in Shenandoah, and I added the Telluride Mushroom Festival in Colorado to the list in 2017. I was floored by what I found! The people and clubs I met inspired me with their commitment to mycology and the impact of their citizen science.

By 2018, I was primed to start a mushroom group with the help of Mike McMahon. We found a home at the Quarry Gardens at Schuyler, exchanging knowledge for a meeting space. Since then, the group has evolved into a vibrant community. We've hosted diverse events, from PhD speakers to quirky "Mushroom Melodies" campouts. One unforgettable milestone was hosting Arleen and Alan Bessette. Renowned fungal experts and book authors, they gave captivating presentations, led a foray, and delivered an incredible ID session. Their visit exemplified the spirit of BRMS as it evolved beyond merely a club, and became a community and a family.

Our informal structure served us well, but, to reach our full potential, we decided to incorporate as a nonprofit in the fall of 2023, creating a foundation for the future. I've been joined in leadership by a Board of Directors, and we're introducing memberships that come with a wide range of perks.

Our short-term plans involve more workshops, presenters, and events, but let's dream bigger! Looking ahead, I dream of passing down a thriving community to the next generation of mycophiles. Imagine expanding our Joint Foray, bringing mycology education

to local communities, and contributing to citizen science projects. What are your dreams for BRMS?

As we grow, our need for committed volunteers is real. We're forming committees, such as "Foray and Events" and "Communications," and seeking chairs to lead and delegate tasks. Flexibility is key as we discover what works best for us.

I'm excited to continue this journey with you. Your commitment through paid memberships fuels our dreams for BRMS. Let's keep cultivating something extraordinary!

Cheers,
Pat Mitchell

Report from Appalachia NAMA 2023

by Michelle Kisliuk

In late August 2023, I had the privilege to attend the annual North American Mycological Association (NAMA) foray in Hendersonville, North Carolina – called "Appalachia NAMA" in honor of this year's location. I was able to attend because of a generous scholarship from NAMA that the BRMS board won for our club.

The poster for Appalachia NAMA 2023. *Designed by Karen Milnes.*

In May, BRMS held a contest to choose a recipient for the scholarship. They asked interested folks to submit a brief essay describing what we might do if we had the chance to lead a club meeting. Although an idea immediately came to my mind, I hesitated to enter the contest, thinking of other people more deserving of this scholarship: somebody younger than I am or who might not have a job that would support this experience without the scholarship. I decided that jumping in myself might encourage some others to also try, so in the end I put together my essay and sent it in.

I admit that I was very excited when I actually ended up winning, because, as a newcomer to the world of fungi over the previous year, I was dedicating my summer to intensive learning; adding a NAMA experience to this plan would be amazing, and tickets were already sold out! So, even though the dates of the foray meant I would have to cancel some classes at the very beginning of the UVA semester (something I have never done

before), I decided that the potential for learning made it worth this sacrifice. And that was true!

Renowned mycology authors Alan Bessette and Arleen Bessette pose with fellow BRMS members Harry Puffenberger and Pat Mitchell at NAMA 2023. Photo by Pat Mitchell.

The "host mycologist" for the weekend was Arleen Bessette, whom I was lucky enough to have met, along with her husband Alan, just a month earlier (while attending their Mushrooms of the Carolinas weeklong study intensive). NAMA rented an old Christian retreat center, and I was housed in one of the dorm-like cabins. It was cute and convenient and comfortable (okay, there were a few mice, but who's looking for luxury?). The scholarship also covered food from the communal cafeteria where each meal provided a chance for folks to sit and chat with new people among the hundreds of mushroom enthusiasts from all over the country.

There were forays going during all three days—some in the mornings, some in the afternoons, and a few that spanned the entire day. When the vans pulled back in after a foray (averaging about 20 people per foray), they let us out at the entrance to the camp gymnasium. We would unpack the specimens we had collected, placing them on paper plates or "boats" (the kind they sell fried clams in), and setting them out on tables for the crew of expert mycologists to sort and identify further. Even though we were in the midst of a drought, the gymnasium was filled with an enormous variety of fungi. Every evening after dinner and before the evening lecture, they would choose a "mushroom of the day" (or two) to highlight.

Michael Hopping and Scott McNally carefully examine a specimen after a foray walk at NAMA 2023. Note the "boats" used to contain specimens. Photo by Pat Mitchell.

There were also lectures offered each day. Talks like these would be very hard to find outside of this kind of gathering: from graduate student Ben Lemmond presenting his fascinating research on the latest field and lab data about eastern truffles, to a presentation by self-made entrepreneur and mushroom growing expert William

Padilla-Brown of Mycosymbiotics. BRMS's own Pat Mitchell led nighttime forays with fluorescent flashlights, along with celebrated specialist Alan Rockefeller. There was so much more; I learned a great deal and met great people, including ethnomycologist Elinoar Shavit, with whom I shared a lively breakfast discussion.

I have to say, though, that my favorite moment came just before Arleen Bessette was scheduled to deliver her stunning Saturday evening keynote talk (a photo essay that took us on a breathtakingly gorgeous journey awash in the mushrooms from the region). Along with many of the same people whom I'd met in West Virginia a few weeks earlier at the annual foray there, we hatched a plan to rewrite the words to Dolly Parton's "Jolene" in honor of Arleen Bessette. Now going by the "Hippymycetes," we got together to practice in hurried moments between forays and lectures—trying to keep our plan a secret and having hilarious fun. In a moment that brought my summer research together, we surprised Arleen with this musical introduction, complete with the lyrics up on the screen so that everyone could sing along:

https://www.youtube.com/watch?v=qaUUpRLuJN4

For the December BRMS meeting I finally got to offer our club the idea I'd described for the scholarship contest: teaching some singing (and dancing) from the Central African rainforest, where I do research with BaAka people and their amazing culture. We drew connections between mycelial and musical processes as we learned. It was a cold, rainy day, but we had a blast—what a great group to teach and to sing and dance with! We shared food and ideas and fun, and I'm so grateful to all of you. Thank you BRMS, very very much!

Michelle Kisliuk introduces the club to Central African singing at the December BRMS club meeting. Photo by Pat Mitchell.

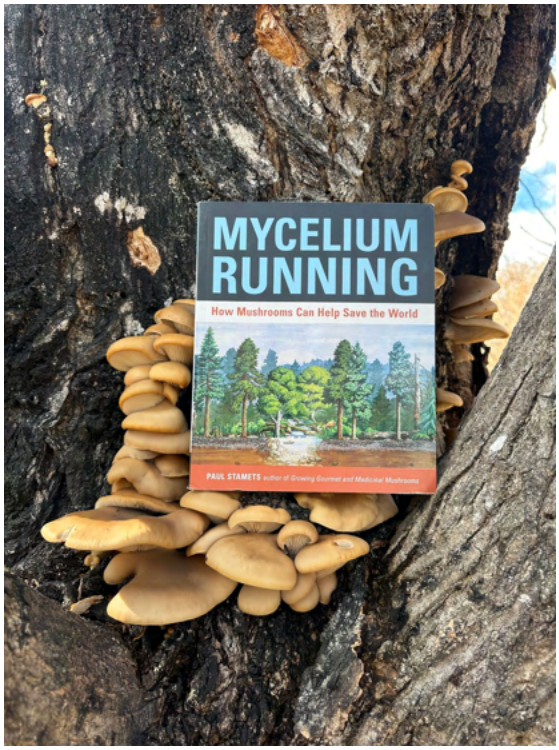
Book Review

Mycelium Running: How Mushrooms Can Save the World

by Chuck Theisen

Paul Stamets' 2005 book Mycelium Running draws you in with the intriguing subtitle, "How Mushrooms Can Save the World," and he proceeds to prove the point. As an avid gardener, building loose, productive soil is what I live for and that is a major part of this book. Whether increasing bio-availability of chemicals and minerals or working to remediate toxins in the soil, mushrooms do it all, as Stamets tells it.

Stamets divides Mycelium Running into three sections: an overview of mycelium's interaction with its surroundings and its potential medicinal properties, an examination of environmental restoration with mycelium, and lastly various propagation techniques on assorted media.



Mycelium Running can be found near certain types of mushrooms in trees, or in bookstores. Photo by Pat Mitchell.

The author begins by defining mycelium and the interactive relationship it has with the local, and extended, ecosystem. He introduces research regarding mycelium and its potential use in new microbiotechnologies and even, potentially, biological computers. The life cycle of mycelium and fungi is explored before he delves into various classifications of fungi and mushrooms. These include decomposers of various stages and those with symbiotic or parasitic relationships with other organisms.

He then moves on to cover some of the research into potential beneficial uses of mushrooms and fungi. An overview of possible medicinal uses of assorted fungi with antibacterial, antiviral, and anticancer properties closes out the first part of the book.

The next section, Mycorestoration, covers four areas:

1. **Mycofiltration**, which is the filtering of water by mycelium to remove solids, toxins, and pathogens. Techniques for installing mycofiltration systems or mats, created

with various species of mycelium, are discussed. He presents several experiments and real-world situations in which mycofitration techniques have been successfully deployed.

2. **Mycoforestry** is a newer term for the use of ecologically appropriate fungi to achieve minimal forest management, keeping the cycle of renewal flowing. Again, Stamets presents some real-world examples that have been used in furthering mycoforestry. For example, as part of a replanting project, he treated half the seedlings with mycorrhizal fungi for a long term experiment to see how they would grow.
3. **Mycoremediation** is a new technique to use fungi and mycelium to degrade hazardous substances or to bioaccumulate them in the fruiting bodies for easy collection and removal. Mycelial mats are used to filter the hazardous substances and renew eroded soils. Other techniques from mycorestoration and mycoforestry are combined to remediate former industrial, chemical, or other waste sites. A number of projects are presented that show successful mycelial remediation against chemical weapons, hydrocarbons, and pesticides, among other contaminants.
4. **Mycopesticides** are a reasonably new area of research using mycelium and fungi to control and battle pests and fungal infections. Stamets starts this unit with a discussion of how he ultimately defeated the carpenter ants that were eating his home. He lost the home in the process, but gained a patent.

The closing section deals with the propagation of mushrooms and mycelium. Techniques to collect, germinate, and establish mycelial mats and or other plantings are extensively reviewed. Instructions concerning propagation on a wide variety of media, from agar to manure, are included. He follows that with in-depth coverage of techniques for a multitude of varieties of mycelium and mushrooms. Within the description for each variety, he includes its nutritional values, medicinal uses, and other details.

The book is well-written, easy to understand, and entertaining. Stamets starts with a title that presents an intriguing thought and provides a wonderful book that shows how mushrooms can, indeed, save the world.

Mycelium Running: How Mushrooms Can Save the World (2005) by Paul Stamets was published by Ten Speed Press, Berkeley, CA. Paul Stamets is an American mycologist living in the American Northwest. He holds at least 14 US patents and others from Canada, Germany, Australia, New Zealand, and other countries, with many more patents pending throughout the world.

Club Highlights

The fall of 2023 has been an exciting time for BRMS. Here is a brief look at some of the big moments for the club.

Co-Hosted First Multi-day Foray

In September, we hosted our first ever joint foray with the New River Valley Mushroom Club. We explored Cave Mountain Lake Recreation Area and proved that mycology is enjoyable regardless of the amount of rain that falls or the number of holes in the roof.

BRMS and NRVMC members pose after a successful joint foray. Photo by Vickie Rapalee.

Monthly BRMS club meetings

We held our normal October and November monthly forays in Schuyler, VA. We improved our system for sorting and identifying our fungal finds, and we placed more emphasis on scientific examination and documentation. In December, Michelle Kisliuk led us in a Central African singing and dancing experience (read more about that in her Report From Appalachia NAMA 2023).

We're Official! And We Have Memberships and a New Website!

In September, BRMS was officially incorporated and granted 501(c)(3) non-profit status! We're out to change the world, one mycophile at a time. If you'd like to join us in our mission, you can SIGN UP on our...

... brand new official website, which is launching the day this newsletter comes out! Check it out at www.brmsclub.org.

Upcoming Events

Britt Bunyard Lecture

February 13, 2024
7-9 p.m.
Ivy Creek Foundation Education Building

The Blue Ridge Mycological Society is pleased to sponsor a special lecture by Britt Bunyard entitled “A Resilient Planet Needs Fungi Now!” The lecture will be held in the Ivy Creek Foundation Education Building in Charlottesville, VA. His talk will feature fascinating stories and captivating photographs from his recently published book, The Lives of Fungi: A Natural History of Our Planet’s Decomposers, and it should delight anyone who is fascinated by all things natural.

Tickets are free but required. Space is limited. Sign up here.

Belted Basket Weaving Workshop

February 11, 2024
9 a.m. - 5 p.m.
Schuyler, VA

In this workshop, we will be completing a small, "hipster" basket with slots to slide onto your favorite belt, or side-slots to add a strap (strap or belt not included)! After a brief discussion of materials, each student will be led through the process of forming the base, twining, weaving the sides, and constructing a rim. This covers a lot of the very basics needed to go and start weaving your own baskets. While experience is *n*ot necessary, some propensity for hand-crafts and basic weaving skills (knowing the under/over pattern of weaving) will serve you well! Don’t worry, no one will be left behind. Please bring a pencil, a pair of scissors, and an old towel to class with you.

Registration is $55. SIGN UP HERE. Members of BRMS can get a $5 discount code upon request (email brmsclubsecretary@gmail.com).

February BRMS Club Meeting

February 11, 2024
2 p.m.
Schuyler, VA

Join BRMS for our regular monthly meeting.

"Mushroom Melodies" Camp-out and Sing-along

April 20-21, 2024
Nealand Farm

BRMS will be gathering at Nealand Farm in Scottsville for the second-annual "Mushroom Melodies." Eat s'mores, meet the goats, play games, and sing mushroom-themed parodies and original songs. Bring any instruments you play and join your voice with ours!

Morel Walk

April 21, 2024 (subject to change due to weather)
10 a.m. - 1 p.m.
Location in Nelson County TBA

This foray will be focused on finding and learning about morels. Attendance at this year's Morel Walk will be free for BRMS members and $10 for non-members. Participation will be capped at 35. Registration will open closer to the event.

West Virginia Mushroom Foray

Summer 2024

Stay tuned for additional information about this awesome annual foray hosted by the West Virginia Mushroom Club.

Pacific Northwest NAMA Camp

October 31 - November 3, 2024
Randle, WA

You can find lots of information about this large foray and mycology gathering here.

Posing after the October BRMS foray. Photo by Pat Mitchell.

Sometimes the best way to find mushrooms is to all load into the back of a pickup. Photo by Pat Mitchell.

Mushroom Melodies

Each edition of Blue Ridge Mycelium includes lyrics for a mushroom-themed song. Most are parodies, but some are original.

In the Quarry

Original by C. Austin Miles
Modified by Isaac Hopkins

```
  G
I come to the garden alone,
              C                    G
While the dew is still in the quarry.
            D7
And the group I see,
               G   D   G
With their basketry,
     A7                  D   D7
Departs upon their foray.
```

Chorus:

```
            G
And they walk with me
            D
And they talk with me,
            D7                   G
And they tell me what to observe.
                     B7
And then we consume
          Em  G7/D C
All the  edible     shrooms,
               G
And those caps make
D7            G
Great hors d'oeurves.
```

```
      G
The sound when they make a great find
       C                           G
Is so loud the birds hush their singing.
             D7
There are chanterelles
       G      D       G
All across these hills
      A7                D      D7
The big morels are springing.
```

Chorus

```
     G
We stay in the quarry all day,
               C                        G
Though the night around us be falling.
          D7
For we must ID
        G    D    G
All of our fun-gee,
   A7                  D7
A poison meal forestalling.
```

Chorus

Little Spores

Mycologists can be any age, whether 80 or 8. We hope that the Little Spores section of the newsletter will provide an access point for mycologists that are young in years or young in spirit. We'll have fun and games here, but we'll also explore basic concepts in mycology and ecology in simple, clear language.

Can you help us find Chestnut the Ant?

This is Chestnut. She's a *carpenter* ant. She likes mushrooms, so she tends to hang out in this newsletter. In fact, I bet you'll find her somewhere in every edition of Blue Ridge Mycelium. If you find her and let us know where she is, you'll earn a sticker at the next mushroom walk! She'll probably be pretty easy to find this time, but I bet she'll learn how to hide better in the future. You can email brmsclubsecretary@gmail.com when you find her!

The Blue Ridge Mycological Society is a 501(c)(3) non-profit.

Our goal is to learn about fungus and share that knowledge as a way of sparking interest in others.

Society Officers

President - Pat Mitchell
Vice President - Harry Puffenberger
Treasurer - John Dent
Secretary - Lina Schneider

Editor - Isaac Hopkins

Membership

An annual membership in the Blue Ridge Mycological Society is available to anyone for $20 per individual (or $30 per family).

Sign up for BRMS membership here.