



Symbiosis[©]

The newsletter of the Prairie States Mushroom Club

Volume 32:2

Summer

<http://iowamushroom.org>

Ramblings *by Glen Schwartz* David McDowell

by Brett Johnson

Normally I call my articles *Looking Forward*, but *Ramblings* seems more appropriate this time. First, I want to apologize for not getting an article written for the last newsletter. I was busy and kept putting it off until the last minute. Then, at the last minute, I got sick and did not have the energy to write anything. I was sick enough that I did not ride my bike to work for three days in a row. First time, maybe ever, that I could not ride my bike when it was not weather related.

Speaking of bicycling, I plan to ride RAGBRAI this year – another first for me. All of the training has kept me out of the woods more than I would like, but I need to get the miles in to get in shape. It is my intention to check the parks along the way for mushrooms. Maybe I can find some Chantrelles in the grass at the edge of a park and cook them up for supper.

Speaking of Chantrelles, I checked Pinicon Ridge Park in Central City the other day since it has been warm and wet. Not only were there no Chantrelles, there was almost nothing fungal in these woods. Normally, this location is bursting with *Russulas*, *Lactarius*, Lobsters, and Hedgehog mushrooms. The only find of interest was lots of Crown-tip Corals. I hope other locations are performing better than Pinicon Ridge.

It is with great sadness that we learned of the passing of Dave McDowell. Those of us that met him will never forget his booming voice and quick laughter. Dave was very passionate about mushrooms and would drive long distances to attend forays. His sheer joy of life was infectious, and all who knew him have a hole in their heart from his passing. Dave was serving the mushroom club as Vice President. Our club by-laws do not provide for a method to replace a board member until the next annual meeting. If you are interested in replacing Dave until the fall meeting, send an email to the club at iowamushroom@gmail.com and the board of directors will discuss your application. 

Dear P.S.M.C. Members on April 10, 2015 our newly elected Vice President David McDowell passed away. David was a very unique individual who always made our forays a pleasure, whether it was his vast array of humorous stories that he would share or his wide range of knowledge of all things fungal I'm sure you will concur that the woods will be somber with his absence! David had been brainstorming over the winter on how to progress in gaining new members as well as bringing in guest speakers in an attempt to achieve this goal as well as numerous other suggestions for the purpose of educating novices to the pleasures and beauty as well as the many benefits of the world of Mycology. So in David's Honor as well as the honor of other members whom are no longer living, we should respect all of their wishes and make an attempt to achieve their dreams!



David Alan McDowell

by Mike Krebill

August 22, 1959 – April 10, 2015

On behalf of the Prairie States Mushroom Club, let me say that we all regard it as an honor to have known Dave McDowell. Dave lived in North Dakota, joined Iowa's club since ND didn't have one, and would often travel long distances to join us on forays in eastern Iowa, as that was where most of our members lived. He'd bring his black lab Daisy, pack up his trailer, pick up his friend Brett, and camp along the way, as well as at our foray site, which was typically in a park, a forest, or a recreation area. Dave was training Daisy to sniff out morels, and we were looking forward to finding the mother lode this year, with Daisy's help. Dave loved eating mushrooms. He was outgoing and fun to be around. He had a great sense of humor. At our last annual meeting, Dave was elected Vice President and was looking forward to boosting our membership across Iowa. We will remember him fondly.

Here's an obituary from the Austin Funeral Home in Drayton, North Dakota:

David Alan McDowell, born August 22, 1959 in Clarion, Iowa, died Friday, April 10, 2015 at Unity Hospital in Grafton, ND.

He attended Goldfield Community School.

He lived most of his life in the Goldfield/Eagle Grove area and the last couple of years he spent in Drayton, ND so he could be close to his daughter and grandkids, with whom he dearly loved spending time.

David enjoyed fishing, being outdoors and spending time with his family.

He loved hunting mushrooms with the Mushroom Club. He enjoyed taking his dog Daisy for walks.

Most of all he loved spending time with his grandkids.

He is survived by his daughter Megan (Jason) Morris, Drayton, ND; and step-daughters Becky (Jean) Zigrang, of Clarion, IA, and Sara(Ryan) Ell, of Eagle Grove, IA.

His grandkids include Paige and Trentyn, Mackenze and Brandon.

His siblings are Susan Ash, of Garrison, TX, Merrill McDowell, of Eagle Grove, IA , Cheryl (Ken) Miller, of Wellman, IA and Melody McDowell, of Williamsburg, IA.

Also, many nieces, nephews, and great nieces & great nephews. He was preceded in death by his parents Raymond and Verena McDowell, and his stepfather Frank Strever.

A visitation and prayer service were held at the Austin funeral home in Drayton, ND on April 14.

A memorial service will be held at the Grace Evangelical Church in Eagle Grove, IA on July 11, from 2 – 4 p.m.



To Eat or Not to Eat?

by Dave Layton

Funnel Caps

There are lots of varieties of white, gray or tan, funnel-shaped mushrooms inhabiting woods and lawns. Some are tasty, but others may contain dangerous amounts of muscarine and may be virtually identical to tasty ones. *C. rivulosa* (*dealbata*) is one of those and it is listed as deadly! Here are symptoms of muscarine poisoning: diaphoresis (sweat like a stuck pig), salivation, bladder cramping, diarrhea, and difficulty with visual accommodation. Unless you're ready to have that experience, you're going to want to stay away from *Clitocybes* and similar funnel caps. However, I'm going to discuss three *Clitocybe*-like species that are very edible – assuming one is certain of their identity. These three species can also be found in abundance, making them a valuable food source. Just remember each of these species has possibly dangerous lookalikes from the genus *Clitocybe* and other genera.

***Clitocybe odora*:** Deadly *C. rivulosa* cannot be distinguished visually from pale forms of the *C. odora*. So, why even consider *C. odora*? Two reasons: 1. When young and fresh, *C. odora* are often greenish or blue-greenish and they have an anise-like smell. When both those characteristics are definitely present these mushrooms are fairly distinctive. 2. They add a unique sweet anise-like flavor to mushroom soup or spaghetti sauce etc. I identified these in my early years of mushroom hunting without problems. That's because I learned to not assume that a whitish or tan-looking *Clitocybe* would be the same species just because it was growing near the green ones. However, one time while I was mushroom hunting with friends something that could have been *C. dealbata* or *rivulosa* ended up in a sack of edibles. Good and bad mushrooms can and do intermingle! Note: *C. rivulosa* is also said to have a pleasant smell, so smell alone is not a defining characteristic.

Some books list possible confusion between *C. odora* and green *Stropharia* and other greenish mushrooms, but I feel those mushrooms aren't that similar. The bottom line here is to spend your time learning these before you even think of eating them, and positively identify each individual mushroom and never consider

eating a whitish *Clitocybe*. I studied *C. odora* a lot before ever tasting one. Even so, I now feel the consequences of misidentification outweigh the benefits of adding a few to a meal for the vast majority of mushroom hunters.

***Clitocybe (Lepista) nuda* – Blewits:** Blewits represent a couple of paradoxes. The first paradox is: How can one of our prettiest, most distinctive and most abundant mushrooms also be one of the most easily misidentified? The second paradox is: How can the edibility of blewits be rated all the way from “excellent” in some books to “not very good” as Kou states in his book *Mushrooms of the Midwest*. Yet earlier he rated them as “good” in his book *100 Edible Mushrooms*. I believe I have the answer to both paradoxes. As for misidentification, the color purple is not as distinctive as one might think and subtle shade differences from lavender (blewits) to rich purple (various *Cortinarius*) to amethyst (*L. ochropurpurea* gills) can be easily overlooked. Likewise blewit shades can be quite variable from blue to bluish purple to almost tannish white and as they mature they lose their purplish shades. Then they look like a number of obscure mushrooms including a light tan-capped unknown *Clitocybe* that is almost blewit size and shaped but had pure white spores, not light pink spores like blewits. They also had a different smell. I found one in my blewit collection last year. And they emerged in the exact same location this year, growing saprobically like blewits. I've never identified that other species but I wasn't about to roll the muscarine dice. Spore prints are vital to learning blewits. Their pinkish white spores are far different from rust colored *Cortinarius* spores or from pure white or yellowish white *Clitocybe* spores. Also, young *Cortinarius* have a cottony web-like veil. Blewits don't. Mature faded specimens of blewit and *Cortinarius* can be even more similar as gills of both turn brownish and the veil on the *Cortinarius* disappears. One key distinguisher, if you can see it, is how they grow. Blewits grow saprobically from leaf litter. You can often see their mycelium in the leaves, whereas *Cortinarius* emerge through the leaves from underground mycelium growing mycorrhizally, probably with oaks.

(cont. on pg. 4)

To Eat or Not to Eat? Dandelion and Morel Workshop

(cont. from pg. 3)

by Karen Yakovich

I was able to overcome the identification paradox through study. However I learned about the taste paradox the hard way. Twice I ruined meals, once with mature blewits that got rained on and again with some that grew on the wrong substrate. The rained on ones acquired a stale rainwater and dirt flavor and a slimy unpleasant texture. The ones growing on the wrong substrate were young but still icky. They were growing on a pile of old grass clippings and that's what they tasted like. I also found some growing on pine needles that were pretty mediocre. Conversely fresh little lavender buttons growing on mixed hardwood leaf litter are both beautiful and tasty when cooked. They have rich mushroom flavor that goes especially well with meat or mixed with a variety of mushrooms. The good news is these mushrooms grow abundantly in a long season so fresh young buttons are often abundant.



Maggot Holes by Mike Krebill



Although I'm fond of chanterelles, I'd rather not eat maggots, so when collecting chanterelles for dinner, I always slice through the stipe close to the cap. If it looks like this, I toss the mushroom back in the yard to grow more mushrooms. It seems to work. Out of curiosity, I once trimmed away the stem and looked at the cap flesh itself, hoping to find that the maggots were confined to the stem. Alas, they weren't.



I enjoyed my time at this workshop. Mike Krebill's teaching style is captivating and soothing. Mr. Krebill had quite the turnout. It was nice to see so many faces. I always enjoy seeing new nature centers, and meeting the people in charge. Pioneer Ridge was no different. My family and friend didn't mind coming along either.

Boy did Mike keep us busy! He showed us what to look for in a dandelion and what not to look for in a dandelion. After hunting for those sunny flowers, he had us doing all kinds of things with them. We got to fry up donuts and the kids rolled them in cinnamon sugar, plain sugar, and powdered sugar. He had us make dandelion greens. They were actually pretty good, despite their cries for butter (what doesn't cry for butter though). The dandelion tomato apps are something everyone needs to try, yum! Thanks Mike for making us dandelion brats. They must have been a pretty penny, a delicious pretty penny. My Favorite was Dandelion root ice cream. I had to get some Dandy Blend just for that purpose. The dandelion cordial was out of this world. A majority of folks voted that it needed to ferment a while longer. We all had a chuckle. As a final surprise we were treated to roasted maple seeds.

Unfortunately for the folks that desired to put a few morels in the basket, the season was late and dry. Wish we had taken a few pictures of the scarlet cups we found. They were gorgeous. Also we all got a look at Mike's basket. It was truly a thing of envy. Never before had I seen anything so lovely. Thou shall not covet thy neighbor's completely organized and useful mushroom basket. Thank you for the splendid time Mike.



He Holds The Patent That Could DESTROY Monsanto And Change The World! by Amanda Froelich

If there's anything you read – or share – let this be it. (<http://www.ewao.com/a/1-he-holds-the-patent-that-could-destroy-monsanto-and-change-the-world>)

The content of this article has potential to radically shift the world in a variety of positive ways. And as Monsanto would love for this article to not go viral, all we can ask is that you share, share, share the information being presented so that it can reach as many people as possible. In 2006, a patent was granted to a man named Paul Stamets. Though Paul is the world's leading mycologist, his patent has received



very little attention and exposure. Why is that? Stated by executives in the pesticide industry, this patent represents “the most

disruptive technology we have ever witnessed.” And when the executives say disruptive, they are referring to it being disruptive to the chemical pesticides industry. What has Paul discovered? The mycologist has figured out how to use Mother Nature's own creations to keep insects from destroying crops. It's what is being called SMART pesticides.

These pesticides provide safe & nearly permanent solution for controlling over 200,000 species of insects – and all thanks to the ‘magic’ of mushrooms. Paul does



this by taking entomopathogenic Fungi (fungi that destroys insects) and morphs it so it does not produce spores. In turn, this actually attracts the insects who then eat and turn into fungi from the inside out! This patent has potential to revolutionize the way humans

grow crops – if it can be allowed to reach mass exposure. To tolerate the use of pesticides in modern agriculture is to deny evidence proving its detrimental effects against the environment. Such ignorance really can no longer be tolerated. For example, can you imagine a world without bees? Monsanto's chemical concoctions which are being sprayed all over farmers' fields around the world are attributed to the large-scale bee die off. While a growing number of countries are banning Monsanto, it's still being used in nations who should be aware of its dangers. To say that new methods need to be implemented before it is too late is an understatement. Monsanto presently generates \$16 billion dollars per year (as reported in 2014), therefore you can be certain they do not want anything interrupting that flow of revenue. Such income gives them nearly limitless resources and abilities to suppress information that may be damaging their reputation. But by becoming educated on the benefits of growing sustainable, organic, and bio-dynamic food, sharing articles like this, and boycotting GMO & herbicide-sprayed crops, the corporate demon may soon get the message. 🍄



Fungi Photography: Indicating Size and Scale

By Linda Loos Scarth

There are times when the mushroom hunter/photographer wants to indicate relative size (scale) when documenting a find. These False Coral fungi were in a scattered group in grass. They were not particularly pretty or in an attractive setting but we wanted to add them to our files in case they were needed sometime.

Often coins, keys or a small ruler are laid beside the subject to provide some information about size and scale. We would rather use a natural object if one is available. Just inches away from the patch of False Coral were some oak leaves and acorn caps. So moving a leaf and acorn cap into the frame seemed a useful thing to do. Acorn caps are often about the size of a quarter. In the woods another useful indicator of scale can be a snail shell. There are often ones about the size of a quarter nearby. A quarter-size pebble in a pocket can also come in handy.

Of course when doing scientific work, you might want to have a small ruler or grid scale along.

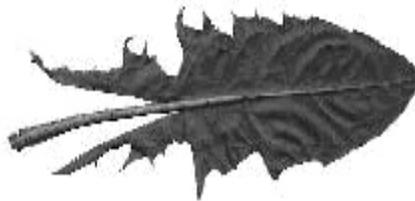


Mike says, “while too late to try this year, as large dandelion leaves are difficult to find and often quite bitter in the summer, you may want to file and save this prize-winning recipe for next spring.” He suggests we try this instead, “as sumac is ripening now and will be ready to harvest in two to three weeks.”

Dandelion and Tomato Appetizer

You’ll need: A sharp knife, a cutting board, a teaspoon, a 13 x 9 x 2" baking dish, and the following ingredients...

15 Roma tomatoes	1 cup feta cheese, crumbled
2 cups dandelion leaf blades, chopped	1/2 – 3/4 cup red wine dressing
1/2 cup onions, finely chopped	1/2 teaspoon mixed dry herbs
1 clove garlic, minced	1 teaspoon Worcestershire sauce
1/4 cup sweet yellow pepper, diced	1/2 cup Parmesan cheese
1/4 cup sweet red pepper, diced	



save leaf blade and discard bitter-tasting midvein

1. Using a sharp knife, trim dandelion leaf blades away from bitter-tasting midveins. Discard midveins. Chop leaves.
2. Set Roma tomatoes aside at room temperature. In medium bowl mix chopped leaves, rest of vegetables, garlic, and feta cheese.
3. Mix dressing with herbs and Worcestershire and toss with dandelion mixture. Chill one hour.
4. Cut tomatoes in half lengthways. Scoop out the seeds with a spoon.
5. Stuff dandelion mixture into tomato halves. Set each half in the baking dish. Sprinkle with Parmesan cheese. Serve.

Makes 30 halves.

This recipe, from Gail Harshbarger, of Akron, OH, won first place in the 5th Annual National Dandelion Cookoff contest held in Dover, Ohio.

WARNING: People who are deathly allergic to poison ivy, mangoes, or cashews should avoid all types of sumac. They are in the same family & might cause an allergic reaction.

Sumac Lemonade

(Two-Minute Stir Method)

You'll need: Bright, dark-red, *super sour-tasting* Smooth, Staghorn, or Winged Sumac fruit heads, a large kitchen strainer, two one-gallon-sized plastic pitchers, a large plastic bowl, a wooden spoon, a straining cloth (see #3), and sugar, sugar syrup, honey, or a diabetic sweetener, if you wish.

1. Dry fruit heads by baking at 250 degrees for 25 minutes. Take a fruit head in each hand. Point them in opposite directions and rub them together, forcing the drupes off. Repeat until you have four cups worth. Put in a large kitchen strainer & shake the strainer from side to side over a wastebasket to remove anything clinging to the drupes (dried-up flower parts, etc.).
2. Dump the drupes into a gallon pitcher. Add three quarts of cold water. Stir with the wooden spoon for two minutes.
3. Strain out the drupes by pouring through a kitchen strainer into a bowl. Remove fine hairs and sediment by straining through a clean cloth such as a flour-sack dishtowel.
4. Taste to see if sweetening would improve it. My 7th Graders and I felt that it would. A diabetic student sweetened hers with a packet of Splenda™. She liked it. The rest of us made a simple sugar syrup by adding three cups of sugar to one quart of water in a pot. A student heated it, stirring until the sugar dissolved completely. I added one cup of the syrup to the three quarts of sumac lemonade. We agreed that it was just right.
5. Add ice or refrigerate.

Makes three quarts

Recipe from Mike Krebill, 150 Oakcliff Lane, Keokuk, Iowa 52632. E-mail: MikeKrebill@aol.com. Tested & refined by 7th Grade Science students. *For the last 20 years, my classes have experimented with making sumac lemonade. This technique, along with using only super-sour tasting clusters, consistently produces good looking and good tasting sumac lemonade.*

Smooth Sumac



Red-coated drupes (seed cover & seed) are in upright, Christmas tree-shaped clusters four to 10 inches tall.

Poison Sumac



Yellowish-white drupes hang down in open clusters up to 10 inches long.

Sumac Lemonade

(Giant Tea Bag Method)

You'll need: Dark, bright-red, super sour-tasting Smooth, Staghorn, or Winged Sumac fruit heads, a large kitchen strainer, scissors, cheesecloth and a rubber band, a gallon-sized plastic pitcher, a wooden spoon, a pot of water, tongs, sugar syrup, honey, or an artificial sweetener, and ice.

1. Dry fruit heads by baking at 250 degrees for 25 minutes. Take a fruit head in each hand. Point them in opposite directions and rub them together, forcing the drupes off. Repeat until you have four cups worth. Put in a large kitchen strainer & shake the strainer from side to side over a wastebasket to remove anything clinging to the drupes (dried-up flower parts, etc.). This improves the appearance.
2. Cut, then crisscross two pieces of cheesecloth at right angles. Put the cleaned drupes in the middle, then bring up the sides and twist, forming a giant tea bag. Fold the top over and secure with a rubber band.
3. Put the tea bag into the pitcher. Pour a quart or two of boiling water over the bag. Use the tongs to dunk the bag up and down for no more than ten seconds, then remove and dispose of the bag. (The water will turn a clear shade of pink to red in the process.) Add ice to cool it and bring the level to three quarts.
4. Taste to see if sweetening would improve it. My 7th Graders and I felt that it would. A diabetic student sweetened hers with a packet of Splenda™. She liked it. The rest of us made a simple sugar syrup by adding three cups of sugar to one quart of water in a pot. A student heated it, stirring until the sugar dissolved completely. I added one cup of the syrup to the three quarts of sumac lemonade. We agreed that it was just right.

Makes three quarts

Recipe from Mike Krebill, 150 Oakcliff Lane, Keokuk, Iowa 52632. E-mail: MikeKrebill@aol.com Tested by 7th Grade Science students. Tea-bag idea from Jim Meuninck's *Edible Wild Plants Video Field Guide to 100 Useful Wild Herbs*, Media Methods, 24097 North Shore Drive, Edwardsburg, MI 49112.

For the last 20 years, my classes have experimented with making sumac lemonade. This technique, along with using only super-sour tasting clusters, consistently produces the best-looking and best-tasting lemonade. To minimize bitter-tasting tannins & improve the appearance of the beverage, we remove the drupes from the stems, shake them in a kitchen strainer, and dunk the tea bag up & down 10 times, then remove it quickly.

Staghorn Sumac



fuzzy drupes atop an upright, fuzzy stem

Winged Sumac



Heavy fruit clusters lean to the side. The central stalk of the compound leaf is winged.

WARNING: People who are deathly allergic to poison ivy, mangoes, or cashews should avoid all types of sumac. They are in the same family & might cause an allergic reaction.

Prairie States Mushroom Club
c/o Roger Heidt
125 Timber Ln.
Robins, IA 52328-9632

PSMC Web Site:
<http://iowamushroom.org>



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MUSHROOMER'S LAMENT

By Joel Horman

Originally from The Mycophile

*Sung to the tune of “Both Sides, Now”
(with apologies to Joni Mitchell)*

Fields and trails with fungal things
Growing wild in fairy rings
And colors rampant everywhere
I've looked at 'shrooms that way

But now they've changed their every name
And it's not clear who is to blame
They have just failed to stay the same
Things known have slipped away

I've been to NEMF and NAMA too,
Both east and west, with much ado
But little now do I recall
I really don't know 'shrooms at all

Brilliant hues and perfumes sweet
Twirl 'round about and grandly meet
As fine illusions everywhere
I've looked at 'shrooms that way

But now its just another year
With rainy weather soon turned clear
Really much too much to bear
Dry weather every day

I've looked at 'shrooms from both sides now
From find and lose, but still somehow
Just the illusions I recall
I really don't know 'shrooms at all 

PSMC Forays

To be announced. Keep checking your inbox.