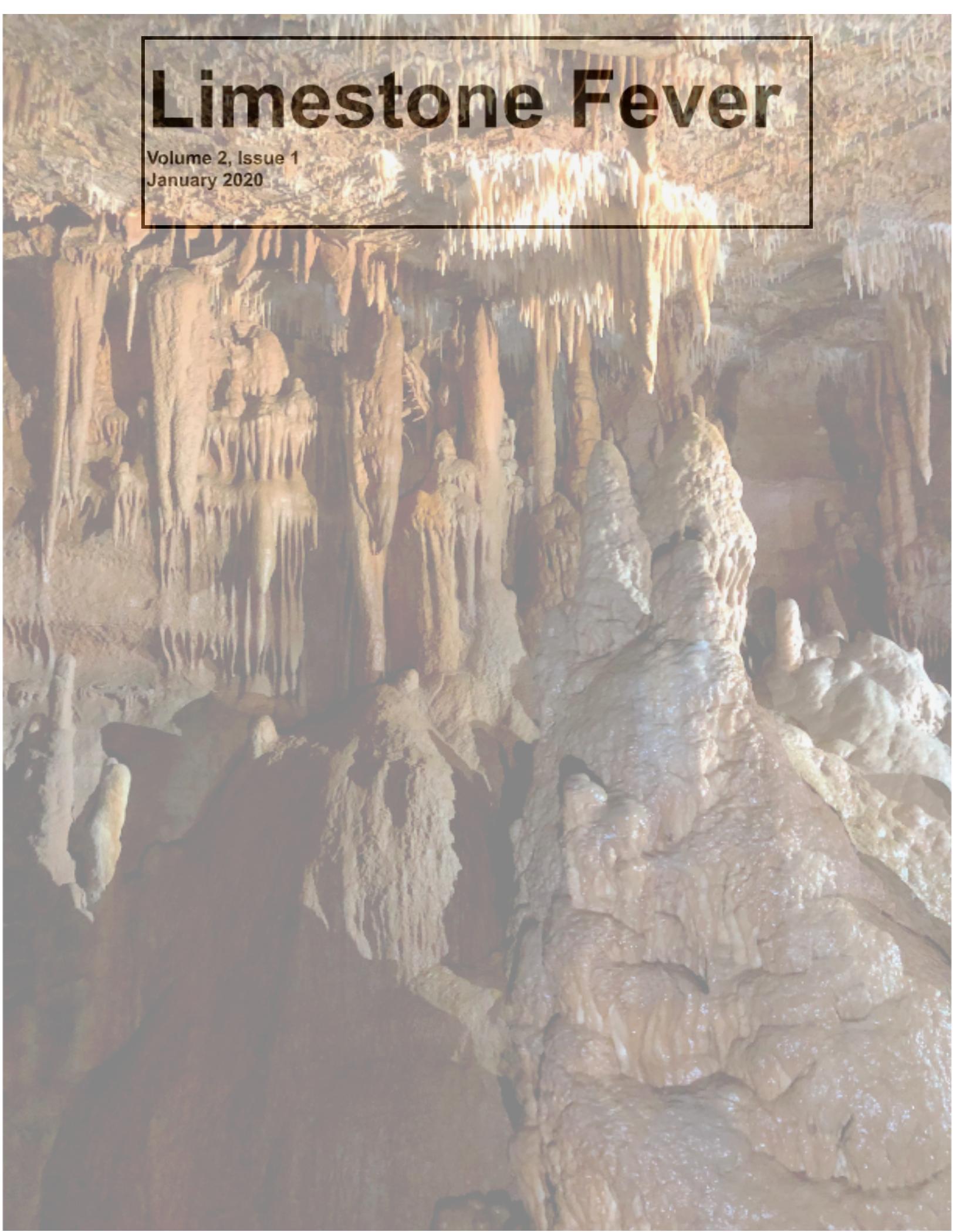


# Limestone Fever

Volume 2, Issue 1  
January 2020



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## Cover Photo

Alexander Caverns  
Credit: Erik Nieman

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Marissa Loftus



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## Hamilton Cave, WV

June 1st, 2019

Reporting: Marissa Loftus

After a full day of caving, Cole Young, Thomas Hawkins, Amos Mincin, Brian Louden, and Brian "Rex" Ulrich, and Marissa Loftus decided to brave the hike to Hamilton Cave in West Virginia in hopes of reaching the Airblower - a difficult squeeze in this otherwise enjoyable maze cave. Amos, Thomas, and Marissa had previously attempted to reach the Airblower in March. Their attempt failed, as Marissa had left the map she had printed back at camp. This time, Marissa remembered the map.

Once the team reached the cave, Rex's uncanny ability to navigate the cave was relied on heavily. Soon enough they were standing at a junction, one which Rex recognized as familiar - they were nearly to the Airblower. Spirits were high as Marissa consulted the map. There appeared to be a passage that led directly to their destination - and although there were several side passages that could also lead there, the group decided to take the shortest path.

Rex started through the passage first, which, much to his dismay, started shrinking. He informed the group that this didn't seem to be the right way - but it was too late. The remainder of the group had already started to wedge themselves into the tight, uncomfortable passage. Many grumbles and curses were heard from the group at this news. Marissa offered to press on ahead to see if the passage went. Rex agreed, and after clambering over him and navigating two particularly tight squeezes, she found herself at the top of a small dome that seemed to have three passages on opposite sides. Marissa climbed down eagerly, happy to be standing once more. The group was waiting to see where the passage would go, and so Marissa announced that she was standing. There was much rejoicing as the group hurried forward, eager to be out of the miserable passage. Their joy was short lived, however, as they squeezed through the passage and laid eyes on what Marissa had announced as standing passage. Brian and Amos climbed down and explored two of the passages - both of which were dead ends. The last passage continued in an equally unpleasant crawl.

Rex, Cole, and Thomas, choosing not to subject themselves to the misery that Amos, Marissa, and Brian had gone through, decided to turn around and find a different way to the Airblower. In hopes that what lay ahead would be less terrible than what was behind, the group that had gone through the squeeze continued forward. Soon enough, they found themselves at the Airblower. They had somehow beaten the other group to this passage, and so there was nothing to do but attempt to shove themselves into the narrow crawl. Brian attempted this first, and soon decided that he would leave the Airblower for another day. Marissa quickly decided the same. The other group still had not turned up, so they turned around in hopes of finding a different way back to where they had last seen them. This time, they found a passage that was mostly walking. Soon enough, they could hear the voices of the rest of the group and realized that they could have walked to the Airblower instead of crawling to it.

Since the Airblower had once again thwarted their plans, the group exited the cave, wanting nothing more now than pizza. This plan, however, was successful.



Brian Louden in the Airblower  
Credit: Amos Mincin

## Fern Cave, AL

July 5th, 2019

Reporting: Talia Sepiol

Trip Participants: Talia Sepiol, Joe Sepiol, Max Jansen, Michael Jordan, Sarah Xenophon, Daniel Tucker, Gordy Ley, CJ Supenchick

I had no motivation to go to Fern. I had blisters and almost no sleep from the day before. My arms were still sore from lugging the 300' rope through Rumbling Falls. But Joe was pushing me so off we went.



Fern Cave entrance  
Credit: Talia Sepiol

On the way to the cave we stopped for snacks at a Dollar General and I got a ton of band-aids for my feet and Tiger balm for my shoulders. On the way to the cave Max and MJ were sent out ahead of the cars with machetes and hatchets to cut the brush in the way. This was more entertaining than actually effective.

Once at the cave parking, we started to coil the 1230' of rope into 300' coils. This made it much easier to carry to the cave instead of carrying a bag of 1230' as a single unit. I took the tiniest coil and started up the mountain first. The hike was very hot but Joe kept reassuring us that it was only 300 more feet. We did a lot of 300 more feet intervals. When we finally go to the cave we saw that it was about to storm. We hurried to get ready then jumped into the cave. The entrance was stunning. The walk to the drop was super easy. We had to communicate a lot to get the rope through but it went flawlessly. Joe rigged and it took us a minute to realize that we were standing on the breakdown bridge above the drop. I read about this but hadn't realized how crazy it was that every hole was a 400'+ drop. The cave art was so amazing. I dropped 4th and explored a bit. We put 3 giant glow sticks at the bottom to land on. There were a lot of white crayfish in the stream. I like to descend without lights and I guess my whole descent, everyone kept wondering where I was because they couldn't see me.

Dan dropped last and we noticed that he was lighting up the passage very well. It wasn't until he was 100' from the bottom that we realized that he was spinning. We pulled the rope to the side and he was able to drop the rest of the way without spinning. He was very sick on the bottom. I decided to ascend last because I didn't mind being alone. My last song for my climb was the final countdown as I went over the lip. Absolutely perfect.

We de-rigged and Joe, MJ, and Max wanted to look at glow worms but we had already done that the night before and didn't care. So we started down the mountain. Unfortunately we went the wrong way and had to hike 2 miles back to the car from the bottom. The trail was covered in stinging nettles, greenbriar, and my cave pack broke. Oh and Joe was wearing nothing but his underwear. On the way back Sarah hit a deer. It wasn't dead so she killed it and some local people stopped, picked it up and took it home. Perfect end. I wanted a shower but it was 3:30am and I was exhausted.

## Ill Eagle Cave, NY

August 6th, 2019

Reporting: Talia Sepiol

Trip Participants: Talia Sepiol, Erik Nieman

I had seen this hole on the side of the road for a few months on my way home from Brookman Station and decided to check it out. After Erik and I finished checking out Foxes Falls, we headed to this new cave. Neither of us were expecting much. It was a small inlet on the side of the road that didn't look like much of anything.



Once we arrived at the location we headed to the cave. Immediately we felt cool air and got extremely excited. The opening was only about 6 inches so we had to dig it out. Once inside, we found a 20' room with 3 bats. Every time Erik tried to come into the space the bats tried to come out. It was hilarious.

At the end of the room there was a pile of porcupine feces and a 3 inch space. Cool air kept blowing and we got more and more excited to return. There were also many broken formations from time and the construction of the road that made it clear that this was a very old place.



August 15th, 2019

We returned to this cave with an actual name this time. The excitement was killing us. I was digging a million miles an hour through the porcupine feces and moving rocks. I finally got through and every second I got more and more excited.

Finally I made a space to get through and I announced that we would not be seeing walking passage that day. I scurried on my way through the passage. I was on cloud 9 at this point and Erik was taking forever to catch up. It turns out the passage fell behind me and he was re-digging it out. I called back if he was coming and he wanted to kill me at this point but I was dying of excitement. The passage had old pristine mud. No one had ever been here before. We found soda straws throughout it. Once I finished the crawl, I called back that I had lied. We would in fact be in walking passage.

I popped up in the room I had discovered. It had 20' ceilings with flowstone on either side. There was rimstone but it was so frail, it shattered where ever we touched it. The layers of limestone had a lot of crinoid fossils. The air continued to blow from a small hole near the floor. We could not go further than this today. We had made about 150'

of linear progress with continued potential. On the way back Eric found a trilobite. It was about an inch and a half in size.

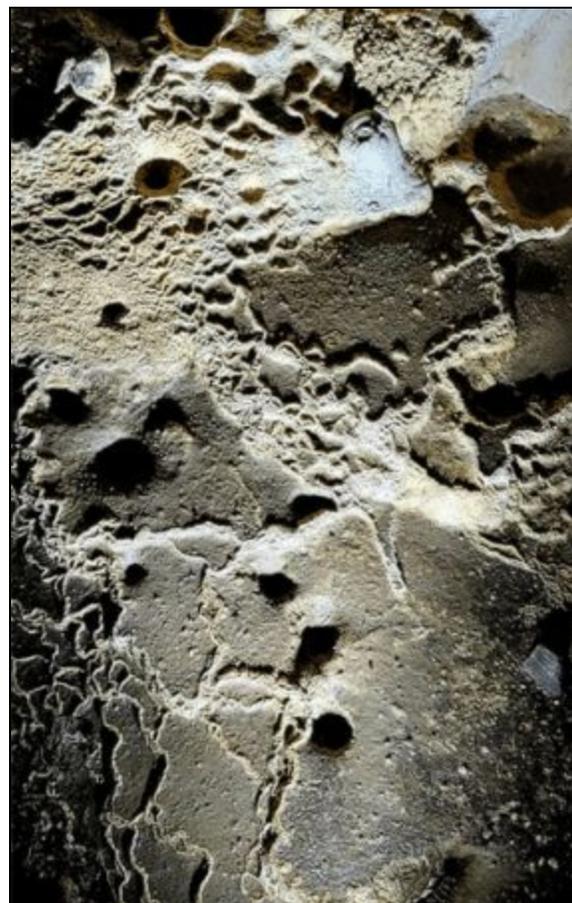
August 19th, 2019

We decided to head back and try and break that rock up with a drill. I had issues with a flat tire so it took me 6 hours to get to the site. Once arriving, we headed in. I forgot how tight the passage was and it was even more terrible with the drill.

Once we got to the room, I started drilling. The walls around the passage were scalloped from water over the years but this rock was not, suggesting it was much harder than anything around it. Once I started drilling I found this true. The drill would not work.

Erik finally dug the floor out a bit and was able to shimmy into the passage. It was very tight. He was able to get in and see that there was another issue a little further. This was frustrating but he got 8' of virgin passage that day. We decided to come back and blast. I tried to go in but the bats were not happy and wanted to get out.

To be continued...



## McAlisterville, PA

September 25th, 2019

Reporting: Marissa Loftus

### Beyond Dead Cat Dome!

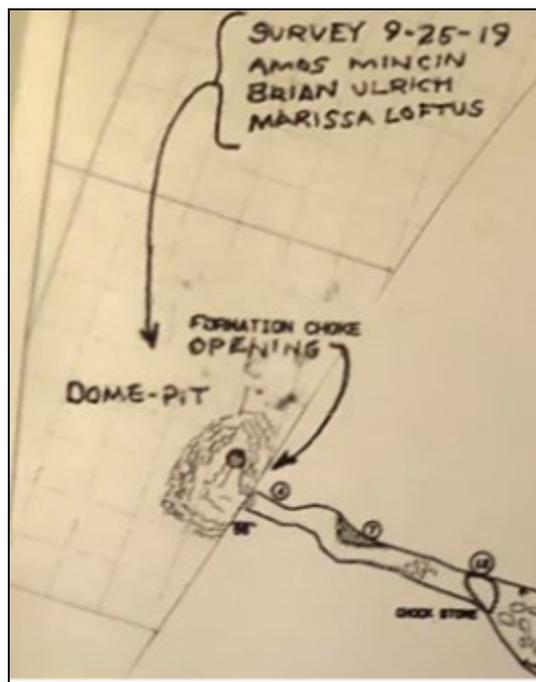
Previously in McAlisterville, Rex, Amos Mincin (Philadelphia Grotto), Cole Young (York Grotto), Mike Shank (York Grotto) and I had journeyed beyond Dead Cat Dome, past the edge of the map, and had found that the cave kept going before ending in a tight formation choke that was almost big enough to squeeze through. On this trip, Amos, Rex, and I were determined to see what lay beyond. We entered the cave at mid day in hopes of finding and surveying new passage in this popular cave.

We reached our destination without any difficulty. This area of the cave is in the Wendler extension, and features a beautiful dome before returning to a breakdown crawl that leads to narrow canyon passage and our lead. We could see only darkness in the crack between the flowstone and the wall.

After some time, the cave was kind enough to let Rex clamber into the room. He told Amos and I that there was "plenty of room." This was a lie.



Rex and Amos in the dome  
Credit: Amos Mincin



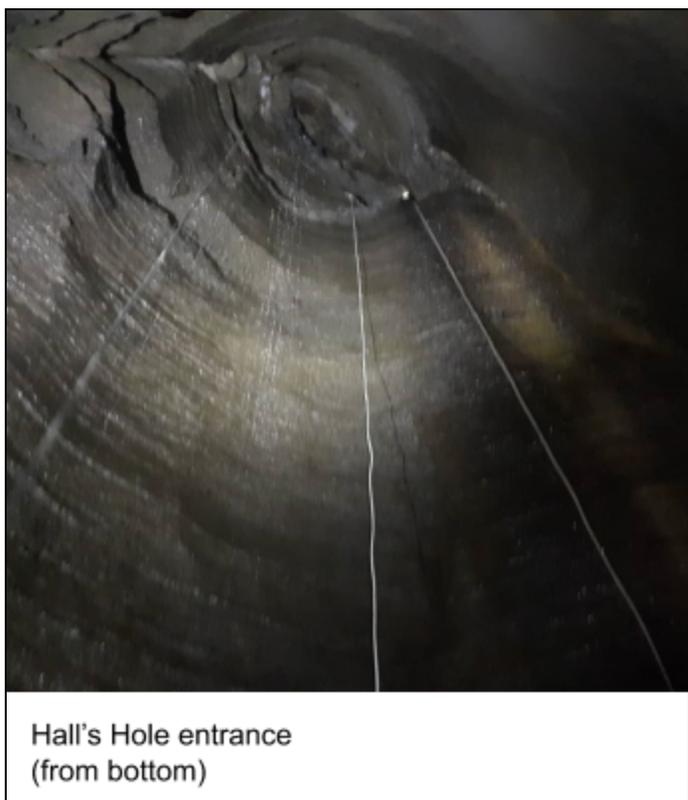
Rough sketch of the flowstone dome

The room beyond the flowstone choke was a small flowstone dome, approximately two feet wide, five feet long, and ten feet high. It's location in the cave is approximately 40' above the area of the cave called Bourbon Street.

Since we had made it through, the only thing left to do was survey the new room. I sketched the small passage, and soon enough we were on our way back to the surface.

McFail's Cave, NY  
Reporting: Evan Madill

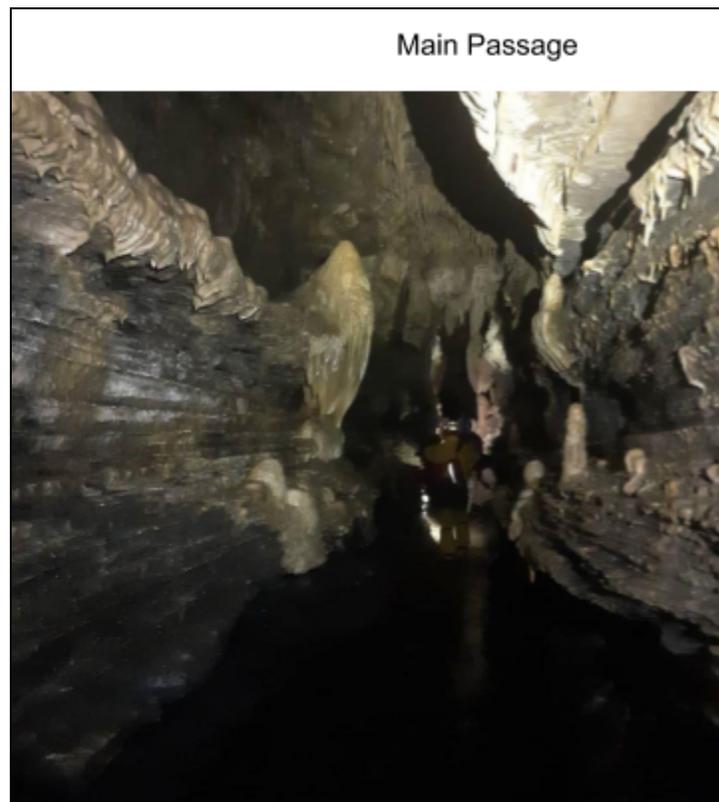
The 2019 Fall NRO hosted a trip to what is arguably the Northeast's finest Karst feature. McFail's cave first struck interest while reading *Cave Geology*, from both the photos and written description. McFail's hole is reached after a short hike through the forest that hugs the side of a field. Halls hole entrance starts with a small crawl to the main drop. The roughly 70' of smooth vertical is appreciated north of the Mason-Dixon Line.



Hall's Hole entrance  
(from bottom)

Taking the passage to the south, we traveled through a narrow but high passageway known as Coeymans Passage. The passage was of the sharp and sculpted chert variety. This was a very pleasing aesthetic, through water between ankle and knee height.

Several short drops were passed by the way of cable ladder. The formations were not of any significance, the structure and architecture of the passageway is much more impressive. Eventually you meet at mild waterfall at Coeymans Junction and veer left. The passage gets wider and slightly lower at this point. Detritus is noticed roughly 10' above one's head on



Main Passage

passageways which shows how the water level was at one point.

As you follow the main passage south, there are several large breakdown rooms. The pools of water get deeper, up to chest height in some areas. McFail's contains a sufficient mixture of vertical and wet, which was a big part of the appeal. At the end of the main passage was the largest part of the cave seen (volume wise). We reached a large breakdown room, with massive boulders that had to be scaled. Past the boulders, the passageway became tall and narrow again until we reached the sump. The way back was just as exciting and aesthetic as before, especially Coeymans Passage. The climb out of Coeymans Dome was enjoyable and aesthetic. The whole trip turned out to be a McSuccess!

## Sarah Furnace, PA

November 23rd, 2019

Reporting: Gabby Zawacki

Forward by: Bert Ashbrook

Sarah Furnace Cave in Clarion County, also known as Porter's Cave, is one of the classic Vanport Limestone maze caves of northwestern Pennsylvania. The Mid-Appalachian Karst Conservancy acquired 20 acres surrounding the entrance in July, 2019. Like other Vanport caves, Sarah is a dense network of mazy, joint-controlled crawlways, most of which are 1-4 feet high and wide. Cavers have been participating in an MAKC project to survey the cave this year, and so far, we have mapped over a mile of passage. However, the cave is so mazy that our mile of passage is scarcely 10 minutes from the entrance. All previous attempts to survey the cave have failed in frustration, perhaps because Sarah is estimated to have over 40 miles of passage (based on passage density and the extent of the limestone).

Sarah Furnace was a nearby iron furnace that operated along the nearby Allegheny River from 1860 to circa 1867. The three ingredients needed to smelt iron -- fuel, ore, and flux -- were found at or near the cave. The Vanport limestone, reportedly 10-12 feet thick at the cave, provided the flux. A layer of "Buhrstone" iron ore, locally about 2 feet thick, directly overlies the Vanport. Indeed, the cave is formed at the contact of the limestone and the ore, and the cave was mined for both ore and flux in the 1800s. This resulted in a number of mined passages that follow the joints and can have unstable ceilings, but that provide the only opportunities to stand up. About 40 feet stratigraphically above the cave is the Lower Kittanning coal seam, which was cooked for coke to fuel the furnace.

Survey trips are scheduled for the last Sunday of every month, and experienced cavers who want to learn to survey are welcome. If you'd like to help, email "[SarahFurnace@karst.org](mailto:SarahFurnace@karst.org)."

- Bert Ashbrook

### Sarah Furnace Trip Report

The Saturday before the regular monthly Sarah Furnace survey trip had 8 people for the 24th survey trip of the year. The group included Bert Ashbrook, Gabby Zawacki, Chris Hill, Trevor Cicchinelli, and Dwight Kempf. We were also joined by 3 visitors from Maryland including Robert Wilson, John "Jack" Merlo-Coyne, and Miles Drake. As usual, the group met at Plaza Pantry to have breakfast and plan for the survey. It was at time that Miles would make

a decision that would change the course of his day - he ordered chili. After eating and strategizing, the group headed to the cave to begin a successful day of surveying!



Curt Harler (Cleveland Grotto) surveying in a tight crawl

Once at the cave, the group was greeted by many bear hunters preparing for the first day of bear season. After getting our gear together, we entered the cave around 12:30pm and began to calibrate and check instruments as usual. Jack and Robert had not been surveying before, so we took some time to show them how each instrument worked before splitting up into 3 teams. Each team would be working in the north/northeast section, with the AXC team - Trevor, Miles, and Jack - looking to push tighter leads in the most northern part of the cave. AXA - Dwight and Bert - would be tag-teaming a survey, while the AXBt team - Gabby, Chris, and Robert - worked to fill in an area between past surveys. The teams dispersed with a plan to meet in a few hours to share a meal.

After a few hours of surveying, the group gathered to eat and spend some time together. It was at this time that we learned that Miles' chili breakfast was coming back to haunt him. Over the duration of the survey, he had to exit the cave a few times to evacuate his bowels - a rough time indeed. After being a trooper for the first few hours, he decided to spend the rest of the survey period resting near the vehicles, hopefully giving him time to feel better. With Miles missing as sketcher, the AXC team disbanded with Trevor and Jack joining the AXA crew to finish out the day. This meant overall we would gain less footage, but gave the AXA team a few extra people to make surveying easier.

Wary of time and not wanting to leave Miles' alone for too long, both teams surveyed for a few more hours before meeting up and leaving the cave around 6:30pm. We exited into an icy-cold rain that dulled the senses of everyone including our fearless leader, Bert. Once at the vehicles, Bert placed his keys on the windshield, and everyone changed into warm, clean clothes with the thought of a nice hot dinner on our minds. We headed down the mountain into the darkness, arriving at All Stars.



Fossils in limestone at Sarah Furnace

Once there, Bert realized he no longer had his keys and he and Chris headed back to the cave to look for them. He surmised that after placing them on the windshield, where he thought surely he would see them, he had forgotten them. After turning on the windshield wipers, they must have gotten knocked off after the first few swipes across the glass. With this in mind, Chris and Bert arrived back at the cave and went from the parking area down scanning the side of the road for keys. Bert had his head hanging out in

the window in the cold rain hoping the flashlight would glint off of the metal. No such luck. As Chris and Bert headed back to East Brady, hope almost gone, they saw the keys sitting between the yellow lines on Route 68! They had not been run over and were luckily no worse for wear! Bert is one lucky duck.

After a triumphant return to All Stars, Bert and Chris finally ordered food and joined the crew. The rest of us had already eaten dinner, dessert, and coffee by the time they arrived, but everyone shared some stories before heading out. Most of the group would rejoin the next day for the regular Sunday survey.

Despite all of the adventures we faced that day, the Saturday crew ended up completing a total of 394 feet of survey with 326 feet of new cave. Additionally, we all learned some valuable life lessons: Don't leave your keys on the windshield, especially on a rainy night, and don't eat the chili at Plaza Pantry.

As of November 24, 2019 the length of Sarah Furnace Cave now totals 6751 feet (1-1/4 miles), ninth longest in the Commonwealth and 857th longest in the nation. With over 90 leads and still counting, we are sure Sarah Furnace will continue to move up both of those lists!



## Spring MAR, 2019

May 3rd- 5th

We hosted the 2019 Spring MAR at Woodward this year and had over 85 individuals in attendance. The theme was Cinco de Mayo and Star Wars. Justin Arthur provided a highly informative presentation regarding White Nose Syndrome. Individuals from Philly, York, Nittany, and Bald Eagle helped with trips, logistics, and cave access. Although it rained heavily, the MAR was a success and a great time was had by all.

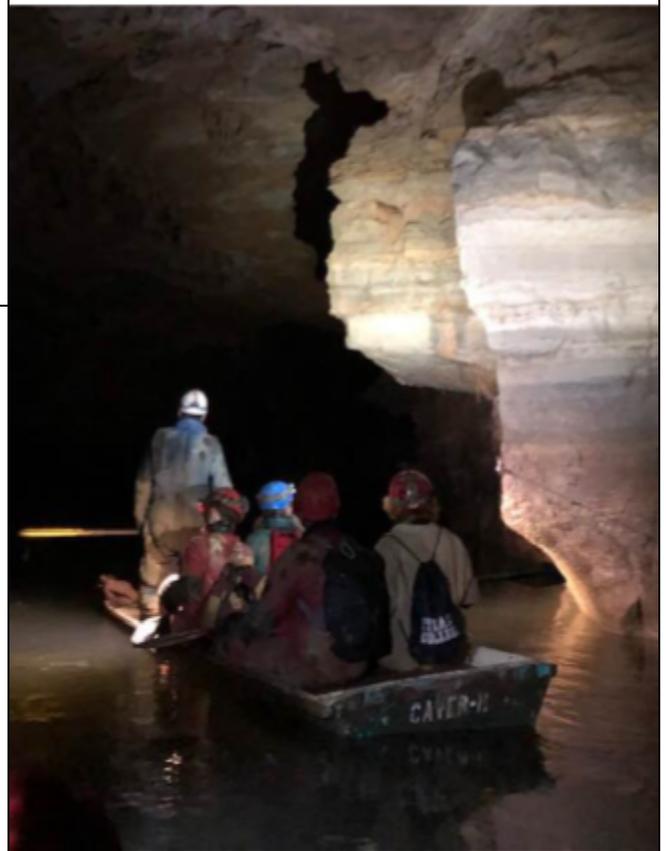


Saturday Dinner – by John T. Karge II



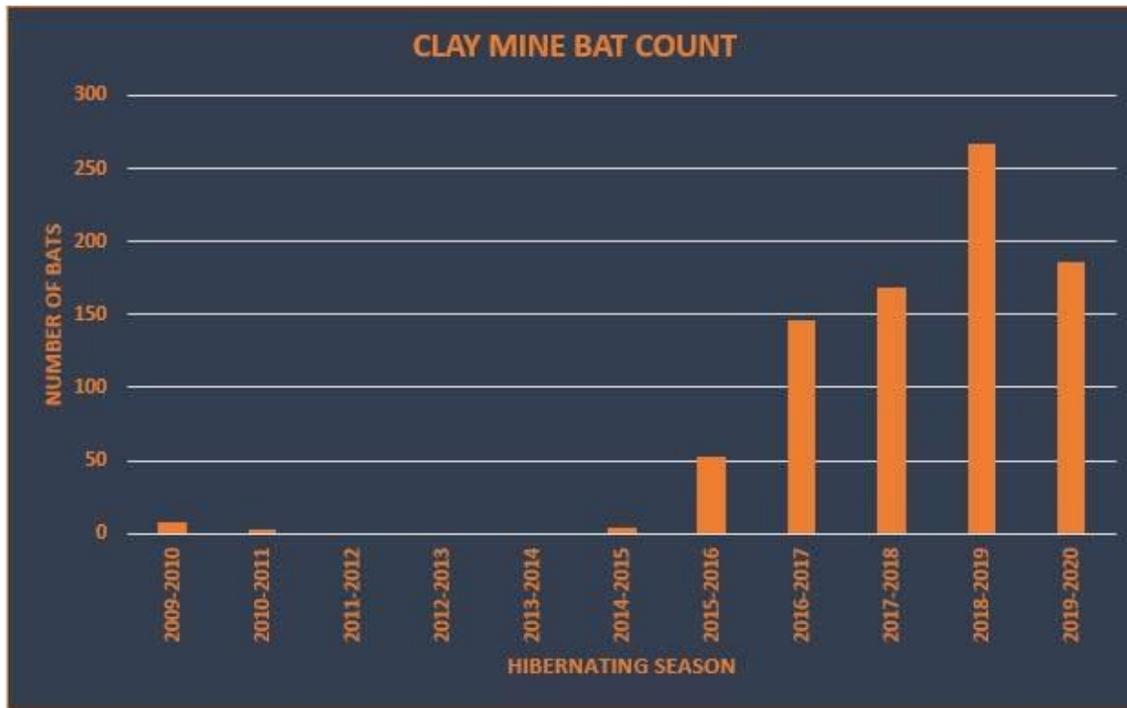
McAlisterville – by John T. Karge II

Alexander Caverns  
Credit: Luther Heydenreich



Sharer Cave  
Credit: Rick Smith

## Bat Count



Talia and Joe Sepiol have been running a bat count in the clay mines in Tioga County since 2010.

Although the bat count for this year seems to have decreased, Joe also reports that earlier in the season he counted 202 bats, all of which were healthy.

Data courtesy of Joseph Sepiol

### Clay Mine Information Provided by Joe Sepiol

This is mostly word of mouth from old folks who grew up in the area. No records or maps exist. Other information has been surmised from artifacts and structures we found in the area.

The mines were in use up until the 1890's for what was referred to as "cannon clay". This clay was used for the purpose of casting cannon barrels during the war. I'm sure it was used for other purposes as well. Mining ceased on the more stable southern mine complex after the operation encountered the water table as they tunneled down hill. They returned the next day to discover the mine flooding. It was abandoned after this and most of the equipment and tracks were left in these mines.

The mines all used a narrow gauge railroad to transport material along a network of tracks to a man-made dam. At the dam, the clay was dumped into terracotta troughs that ran all the way down to the Pine Creek Gorge (PA Grand Canyon). Water from the

small dam was used to lubricate the trough and assist the movement of the clay down grade. At the bottom of the gorge the clay was transported south via boat or cart as the railroad wasn't installed until the 1880's.

There is a coal seam within the northern mines, though no records of coal production exist and the seam was only mined with the clay. No attempts were made to follow the 8-12 in coal seam.

In the 1960's the northern mines were demolished for public safety, though the remaining sections can be entered through collapsed sections in the ceiling. The mines are very unstable compared to the coal mines in the area as the material was close to the surface and they have thin ceilings. Tree roots enter the mines in several places.

We have found various pieces of equipment and terracotta piping in the woods as well as in the mine.

## Quantum Theory Cave Genesis

By: Dave Hollick

Many cavers are aware of the Milling About Theory of Speleogenesis, formulated by the Gangsta Mappers in the early part of the century. According to this theory, the act of milling about before going to survey a cave tends to increase the footage of new passage that will be available to be surveyed. The MATS theory has been shown to be at least partially true, but has served as the Standard Model of Speleogenesis.

As I was looking at an unexplored spring a few months ago, talking to a couple of cave divers about the extent of the potential cave beyond the spring, it occurred to me that we may be increasing the potential by simply milling about discussing it, but there may be much more to this. Could quantum mechanics be somehow involved here? In particular, could Schrodinger's Cat Theory be true regarding the existence of cave passage? Is it possible that the undiscovered cave exists in all possible states, until its waveform collapses into permanence once it has been measured? Is it possible that the passage both goes for miles and ends abruptly, as well as all other possibilities, all existing at the same time, and we only cause it to become solidified by doing the exploration to measure it? This thought staggered me.

I remembered when the newly discovered cave, \$40 Hole, was initially explored in 1998. This is a small but somewhat dangerous cave in Lycoming County, PA. I was in Florida on a family emergency, and when I returned I found a note on my door from Jody and JD, telling me that \$40 Hole was being explored, and they had come to an 80 foot pit which they had not brought rope to drop, so had turned the trip. I contacted them and made arrangements to go back in with them, bringing rope and vertical gear. They had only glanced quickly at the pit, taken no measurement, and had merely guessed at its depth. I brought a 200 foot rope, thinking it couldn't be deeper than that. When we reached the pit I anchored the rope to a large boulder and tossed the bag down the pit to unravel to the bottom. To our shock, the bag hit the bottom at only 12 feet. That's right, the cave's waveform had collapsed from appearing to be 80' deep, to its permanent form of being 12 feet deep, upon being measured. Measuring it had affected it. We wrote it off as the original

observation being just an optical illusion. It was not the first time I had experienced this phenomenon.

On an earlier occasion, we were surveying in Loose Tooth Cave. This was again a situation where we were in virgin passage, surveying as we explored. I did an uphill crawl as lead explorer in a low wide space, and saw that it continued and got bigger. I called the others over to survey the passage, and when we measured it we found that it not only didn't get bigger, it actually got smaller, and it didn't continue. To this day it still is too tight, and still doesn't go, despite the original observation. Again, an optical illusion, or had the waveform changed upon being measured? Could the Uncertainty Principle be at work here?

Currently dives are being conducted in a cave that had previously been "fully explored". Despite the status of "fully explored", we approached it with an open mind about the possibilities. We had spent some time milling about after breakfast talking about finding passage. What we found was a flow of submerged cold water coming from an area that had not been carefully looked at before. The divers investigated, and found going underwater passage. This passage is currently being pushed, with no end in sight. Again, how could going passage be found in a cave that's been known for almost a hundred years?

Thinking about this filled me with more questions. Is it possible that the act of Milling About has some influence on how the waveform takes permanent shape? Could the pit in \$40 Hole have existed in both a 12 foot and 80 foot form until we tossed in a rope? Could the low wide passage in Loose Tooth have both continued and ended, simultaneously, and also gotten both bigger and unpassable, until we surveyed it? Could the underwater passage have both existed and not existed before it was dived? How could it be that different realities were seen, then changed upon being measured? Could our thoughts and expectations somehow affect the way reality achieves permanence? It's a mind boggling question, which certainly deserves further experimentation. Are we, in truth, Quantum Cavers?

## McClure Cave Cleanup

April 13th, 2019

McClure is an interesting cave located in a quarry by McClure, PA. Unfortunately, McClure was left ungated since its discovery in 1948. Because of this and its proximity to town there was significant vandalism and graffiti on many of the cave passages.



In April of 2019, Rick Smith coordinated a cave clean up and secured funding for this event from both Bald Eagle Grotto and Nittany Grotto. Volunteers used a combination of Krud Kutter, nylon brushes, hydrogen peroxide, and water to safely and efficiently clean the cave.



Before



After