

The

The Kansas City Area Grotto

GUANO

Volume 21

Issue 3

November 2007

Dropping TAG Pits

plus NSS 2007 Convention, Onyx Cave clean up,
Ozark National Scenic Riverways, Berry Cave,
Railroad Cave, Fitton Cave, Cave Mountain Cave,
and more

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Wade Baker takes a break at the bottom of Neversink. This pit is 160 feet deep. The pit floor is well over 100 feet across. Photo by Bill Gee.

Events

January 9, 2008

KCAG monthly meeting — 7:00 p.m. at the Arthur Mag Conference Center, Midwest Research Institute (MRI), near the UMKC campus, at the corner of Volker and Cherry.

February 13, 2008

KCAG monthly meeting — 7:00 p.m. at the Arthur Mag Conference Center, Midwest Research Institute (MRI), near the UMKC campus, at the corner of Volker and Cherry.

May 3-10, 2008

National Cave Rescue Commission Cave Rescue Operations and Management Seminar at Camp Skyline in Mentone, Alabama — Extensive classroom instruction and fieldwork in all phases of cave rescue including underground environment, vertical rescue, hauling systems, extrication techniques, medical management, communication systems, and the organization and management of cave rescue operations. For more information, go to www.caves.org/io/ncrc or contact Jane Morgan at caverjanpet@comcast.net.

August 11-15, 2008

NSS Convention at Lake City, Florida. For more information, visit the convention web site at www.nss2008.com or contact Buford Pruitt at bpruitt5@cox.net.



In the Next Issue

Reports from the Fall 2007 MVOR ... a trip to Rollins Cave ... MSS trips to Onyx Cave and Tunnel-Spring Cave ... Lost Caves of the Irish Wilderness ... Jim Cooley leads trips to Smittle, Little Smittle, Toby, Fiery Fork, and Island caves ... a visit to DL7 in Carroll Cave ... and Jerry Cindric reports from the TAG Fall In. (Rollins Cave photo above by Rodney Raber.)

The Guano

November 2007, Vol. 21, Issue 3

The *Guano* is published on an irregular schedule as dictated by the trip reports submitted to the editor.

Submit articles via e-mail to the editor:
editor@kcgrotto.org. Preferred file format for trip report attachments: Microsoft Word. Multiple photos are typically required for each trip report.

Guano subscription rate for nonmembers: \$6.00 annually. Electronic: FREE.

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The Kansas City Area Grotto is affiliated with the National Speleological Society and the Missouri Speleological Survey. In addition, KCAG is a founding member of the Missouri Caves & Karst Conservancy.

Meetings are held monthly. Check www.kcgrotto.org to determine the dates.

Annual Dues: \$15 for full members (three caving trips with KCAG, nomination, and vote of membership required.)

NCRC Callout number – Emergency use only: Central Region (502) 564-7815. This number may be used for cave rescue emergencies in the states of Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, Ohio, and Wisconsin.

A Message *From* the President

At our October meeting, Gary Johnson proposed that KCAG adopt a county to inventory its underground resources. A vote was taken and the decision is to adopt Hickory County. I think this is a worthwhile project that deserves our support. Among other things it gives us caving opportunities closer to home.

Several of our new members have asked me how to get on caving trips. My answer is simple: Network! Go to the grotto meetings, go to MVOR (even if you don't party) and attend meetings of other grottos. Introduce yourself, shake hands and become known. Don't be a wallflower!



Bill Gee surveying in Equality Cave (photo by Tony Schmitt).

Sometimes suitable cave trips still cannot be found. In that case I recommend doing what Gary Johnson and Jim Cooley have done—plan your own trips! Be one of the people who make things happen rather than passively waiting for a trip to appear.

Cave safely!

Bill Gee

KCAG President



Dropping **TAG** Pits

report by Bill Gee

photos by Bill Gee,
Mark Lankford,
and Darla White



In mid-May 2007, Jerry Cindric organized a trip for KCAG members to the TAG area. We all drove down on Wednesday, May 16. Jerry drove his van with Darla White and Terry DeFraties riding along. Mark Lankford and Wade Baker were the first to arrive, making the trip in Mark's truck. I left home about 5:00 a.m. and arrived at the campground around 7:30 p.m.

We all camped at Cathedral Caverns State Park in northeast Alabama. It is about halfway between Huntsville and Scottsboro. The park is only a few years old though the namesake cavern has been known for much longer. The park is so new that the campground is not yet complete. The sites are still being marked out and leveled. There is no signage directing campers to the campground. The facilities consist of a pair of porta-potties. For us it worked out nicely. We don't need facilities and it is centrally located for the caves we planned to visit.

I had quite a bit of trouble finding the campground. Mark and Wade arrived before me and there was cell phone service in the park, so I called them several times for directions. They were not there when I arrived, having left to go rescue Jerry and the van. Jerry's van threw the fan belt idler pulley just outside of Scottsboro. He was able to get it into town to a parts store where he bought a replacement part. It would not be caving without some sort of adventure!

Thursday morning we all decided to ride in Mark Lankford's truck. He has a 6-passenger 3/4 ton diesel 4x4. It has plenty of capacity for all of us plus our gear, and it is able to travel the trails necessary to get to several of the caves.

Valhalla Cave

Our first cave was Valhalla. This is a classic TAG pit located perhaps 30 miles from the campground. The "price" for visiting is to take a couple of bags of mulch. The area around the top of the hole



Previous page: Water cascading down the pit at Neversink (photo by Bill Gee). **Top:** Wade Baker, Terry DeFraties, Darla White, Jerry Cindric, Mark Lankford, and kneeling in front, Bill Gee (photo by Bill Gee). **Left:** The bottom of the pit and Valhalla Cave (photo by Bill Gee).

is mulched to help with footing. We stopped at Home Depot in Scottsboro on the way to the cave for mulch.

The last two miles of road to the parking area is seriously rough. It took us 30 minutes to drive that two miles. We should have been wearing our caving helmets in the truck because of the bouncing around. Jerry says he has had his van down this road, but I find that hard to believe. Anything less than a high-clearance 4x4 will get the bottom ripped out.

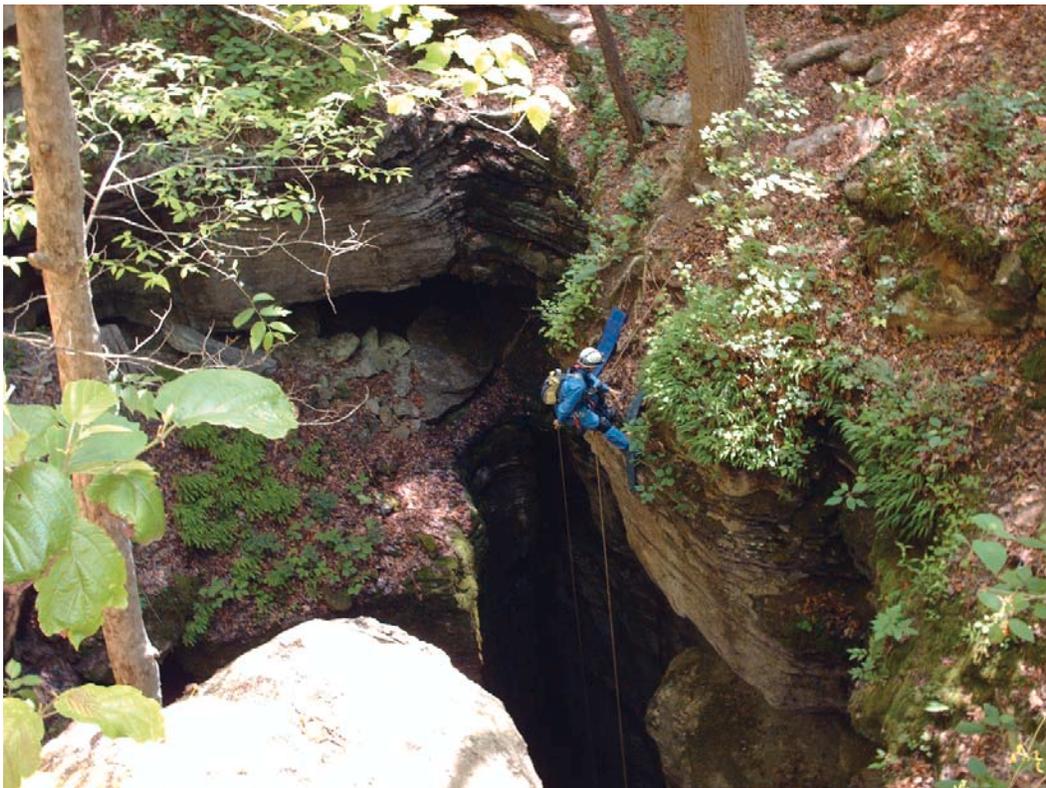
The parking area at Valhalla is a nice clearing perhaps two acres in size. A short easy trail leads to the pit only a few hundred feet away. We changed to caving clothes, then hauled gear and mulch to the pit. Terry rigged two ropes in the hole so we could rappel and climb two at a time. The anchor tree is at the top of a slope about 20 feet long and 45 degrees or so down angle.

Valhalla is listed as 230 feet deep. Some of that depends on where you rig the ropes. The easy rig points are probably about that depth. The wall on the far side of the pit is perhaps 10 or 20 feet higher. At the bottom is supposed to be a mile or so of cave. The pit walls are dark and foreboding, especially past the first 50 feet. There is some moss and lichen cover on the walls near the top, but bare rock after that.

Terry and Jerry went first, then Wade and I, then Mark and Darla. Once we were all down we decided to do a bit of caving.



Top: Mark Lankford at the bottom of Valhalla pit (photo by Bill Gee). **Middle left:** Wild flowers near the entrance of Valhalla (photo by Bill Gee). **Middle right:** Wade Baker and Terry DeFraties stuffing rope in a bag (photo by Bill Gee). **Right:** Darla White dropping Valhalla (photo by Mark Lankford). **Below** Slimy salamander at Valhalla (photo by Bill Gee).





Above left: The entrance of Neversink (photo by Darla White). **Above:** Wade Baker dropping Neversink (photo by Mark Lankford). **Left:** Looking up from the bottom of Neversink (photo by Mark Lankford).

We dove into a small passage that leads under the rig point. I found a nice little 60 foot dome and took some pictures. Darla and Terry went on down a crawlway which wound up going only a hundred feet or so.

At the bottom of the main pit is a huge rock perhaps 10 feet high and wide and 20 feet long. This rock fell several years ago killing two cavers. There is a plaque at the top of the pit giving the names and dates. The rock now provides a nice shelter out of the fall zone.

On the far side of the pit from the landing area is a small waterfall about 3 feet high. It was flowing a bit. The way to the rest of the cave is in the area of the waterfall. We did not try to find it. The bottom of the pit is quite large, perhaps 150 feet across.

I took a lot of pictures, experimenting with the light. There was enough light at the bottom that I did not really need to use a flash. It required 4 second exposures, so some of the people are a bit blurry.

Terry and Jerry climbed out first, then Mark and Wade, and then Darla and I. We derigged the hole, packed up gear and took off for Neversink.



Looking up from the bottom of Neversink (photo by Mark Lankford). **Below left:** a ring-necked snake in Neversink (photo by Bill Gee). **Bottom left:** A snail in Neversink (photo by Bill Gee). **Right:** A red salamander in Neversink (photo by Bill Gee).



Neversink

Neversink is only a few miles from Valhalla. It is listed as 160 feet deep. It took most of an hour to get there mostly because of the road leading out of the Valhalla parking area. The parking area for Neversink is just off the paved road and is accessible by almost any vehicle. Mark's truck was almost too large to fit.

The hike to Neversink is about a quarter mile uphill. As with Valhalla we rigged two ropes off a common anchor to make things go faster. Wade and Jerry went down first, then Mark and I, then Terry and Darla. We spent 30 or 40 minutes at the

bottom taking pictures and looking at animals.

The bottom of Neversink has no cave. It is just a pit floor with a pile of debris in the middle. The pit floor is well over 100 feet across. We found quite a bit of life at the bottom including at least three kinds of salamanders, a snail and several small snakes.

The climb out of Neversink is one to be savored. There are a number of ledges and setbacks going up which are covered in a variety of ferns, Jack-in-the-Pulpits and other plants. It is not just bare rock walls.

We were out of the hole, packed up and back at the campground by about 6 p.m.

Fern Cave

Friday was the big day—Fern Cave and Surprise Pit. The pit is listed as 430 feet. We packed up Mark's truck and left about 8 a.m. The drive to Fern Cave is surprisingly short, though as with Valhalla the last couple of miles to the parking area is very rough. The trail continues and is driveable, but it is gated off by private and public landowners.

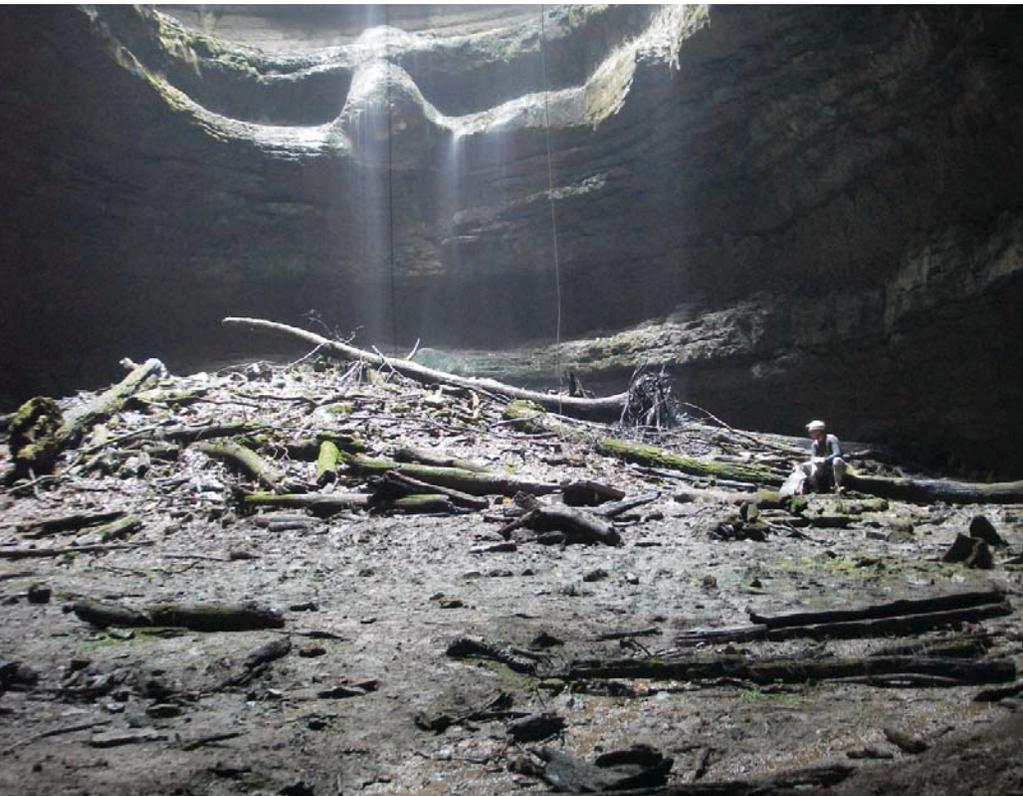
Wade volunteered to carry the 600 foot rope in addition to his caving and vertical gear. The hike to the cave is level for the first mile as it skirts the edge of the hill. The trail then turns uphill for another half mile or so. It is a steep hill and the trail is not well marked.

We arrived at the entrance around 10:00 a.m. Fern Cave has several entrances. The one we chose is the original entrance and the cave's namesake. The entrance is a sinkhole that has a waterfall about 40 feet wide and 50 feet high along one side. The mist from the waterfall supports a dense concentration of ferns surrounding the rest of the sinkhole. The trail into the cave just barely misses the waterfall.

Once in the cave you are in a stream about 6 to 10 inches deep. The passage is mostly walking height and 6 to 10 feet wide. The stream is populated with blind cave crayfish, so you have to be careful where you step. After a few hundred feet you come to a hands/knees crawl which goes about 10 feet and opens onto a shelf.

The shelf is about 30 inches wide, flat and smooth like it was sanded. It is slightly wet. If you slip off the shelf, you go down the pit. The first 20 feet or so is hands and knees crawl, then it opens up a bit for another 30 feet to the rig area.

The shelf spooked me. I got a few feet out and couldn't go any further. It was just too slippery and dangerous. My brain said "Go" and my feet said "Up yours!" There are no handholds and only a few depressions worthy of a knee pad. Someone has put in some bolts on which a hand line could be rigged, but it is set in such a way



Above left: Wade Baker rests at the bottom of Neversink pit (photo by Bill Gee). **Left:** A spring salamander in Neversink (photo by Bill Gee).

that you really could not get clipped into the line.

Everyone else went on to the pit. I stayed back in the main area of the cave. After having a sandwich I got out my camera and started taking pictures of the crayfish in the stream. I also got some interesting pictures of the waterfall where it goes over the edge into the pit. There were quite a few cave crickets, a few bats and some millipedes as well. I worked my way out of the cave taking pictures.

At the entrance the sun angle had changed, putting the waterfall in a whole new light. I took more pictures of the waterfall, then went back in taking even more pictures. My caving camera is waterproof, so I took a lot of pictures of crayfish from underwater. Some of them came out very nice, others are out of focus or aimed wrong. Using the camera underwater is a challenge because you cannot see the viewfinder to aim and you cannot hear the audible signal it gives when it gets an auto-focus. You just have to point and shoot and hope for the best.

After several hours everyone had been down and back up the pit. We hauled the gear out of the cave, down the hill and back to the truck. With the long hike and the time spent in the cave, it was dinner time when we got back to the campground.

Cagle's Chasm

Saturday we planned to look for a multi-drop pit that Jerry knew about. We drove all over the place trying to find a way to get to it, but could not find landowners to get permission to go up there. Finally we gave it up and went to South Pittsburgh, Tennessee, which is just over the state line.

South Pittsburgh has two pits that sounded good—Cagle's Chasm and South Pittsburgh Pit. Cagle's Chasm is listed at 186 feet and South Pittsburgh Pit is listed at either 160 or 180 depending on the source.

Top: Jerry Cindric at the entrance to Fern Cave (photo by Mark Lankford). **Right:** Wade Baker negotiating a canyon passage in Fern Cave (photo by Mark Lankford). **Far right:** A truck full of gear (photo by Bill Gee).





Top left: The ledge that leads to the drop in Fern Cave (photo by Bill Gee). **Next to top:** A centipede in Fern Cave (photo by Bill Gee). **Next to bottom:** A cave cricket in Fern Cave (photo by Bill Gee). **Bottom:** A cave crayfish in Fern Cave (photo by Bill Gee). **Top right:** Mark Lankford dropping Cagle's Chasm (photo by Bill Gee).

Cagle's Chasm is on the outskirts of South Pittsburgh. You have to park near a puppy mill, walk past a cage full of beagles and up the hill a ways. It is only a few hundred yards. The rig points and lips were not as good on this hole as the others, so we hung only one rope in it.

The bottom of Cagle's Chasm has a second 30 foot nuisance drop that can be rigged off of a bolt. We hung a rope on it, then Jerry, Terry and I went down. It can be free-climbed except for the last ten feet or so. After a bit of crawling and going through a small hole, you come to a room that has a large car-sized rock that looks like it ought to have fallen a long time ago. We called it the "The Rock That Will Soon

Fall." Jerry and I took a few pictures of the rock, then we went back out.

As we got to the bottom of the second drop, we heard some muffled curses from above. Terry clipped in and quickly climbed up to see what was going on. Jerry and I followed. We found that Darla had already climbed out and Mark had started to climb. On the way up, the maillon triangle link on his foot ascender came open. Apparently it had not been screwed tightly shut. Since he was only 5 feet off the floor, Wade helped him down-climb. They rigged a carabiner to the foot ascender and Mark was able to climb out with no trouble.

South Pittsburgh Pit

South Pittsburgh Pit is on a hillside near a city park. You park at the top of the parking area, then hike up the hill about a quarter mile, past the city water tower to an old logging trail. Another hundred yards or so on the trail and you arrive at the pit. It is right next to the logging trail, so close that a passing vehicle could easily make a slight turn and wind up going down.

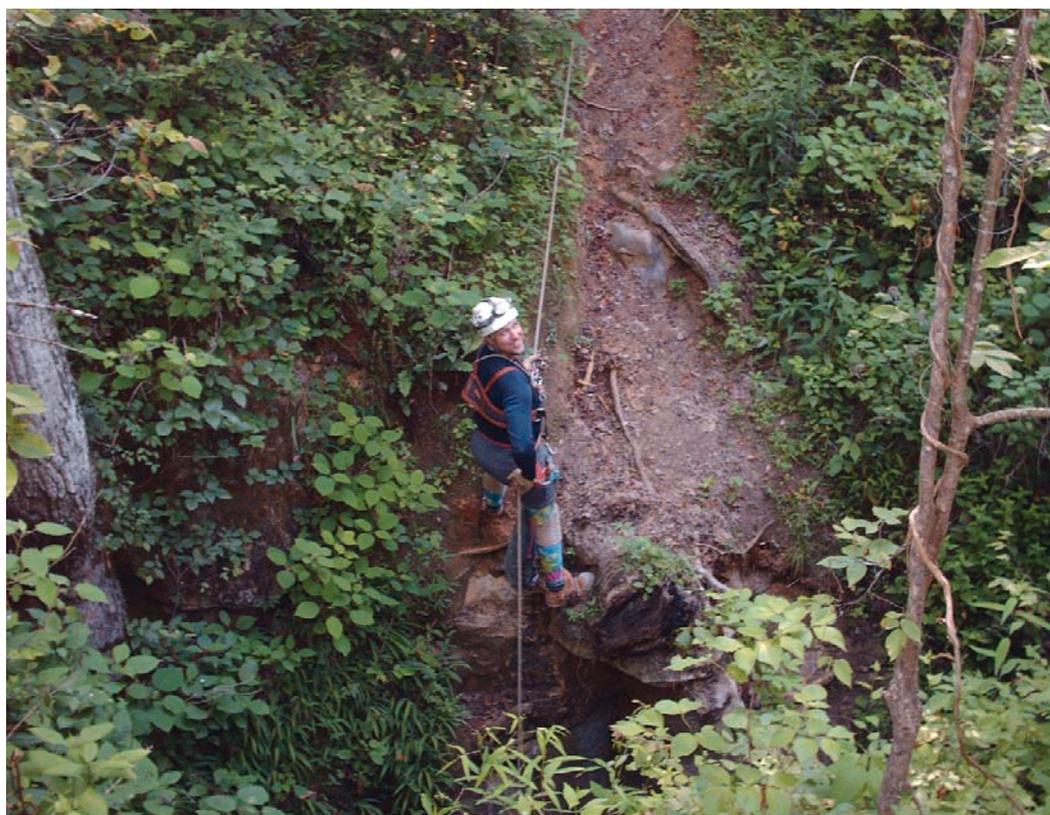
We hung two ropes in the pit, one on either side. The rope on the near side was brand new and fairly slippery. I was the first person to use it. On my full-size 6-bar rack I had to use the hyperbar to control the rappel.

Mark did not go down this pit because of his gear problem. There is supposed to be a long cave at the bottom, but we decided to just bounce the pit. It was getting late in the afternoon and we were thinking about the long drive back.

Wrap Up

We got back to the campground about 7:00 p.m. Everyone had dinner, then we sat around the fire for a while. We did not stay up late. On Sunday I rose early, packed up the camper and hit the road at 6:00 a.m. I got home about 7:30 p.m. It is a bit over 730 miles each way from Olathe to the state park. ●

Top: Darla White resting at Cagle's Chasm (photo by Bill Gee). **Middle:** The campsite (photo by Bill Gee). **Bottom right:** Wade Baker at South Pittsburgh Pit (photo by Mark Lankford). **Below:** Fixed gear on Mark Lankford's foot (photo by Bill Gee).



NSS 2007 Convention at Marengo, Indiana

TRIP REPORTS AND PHOTOS BY BILL GEE & GARY JOHNSON



Bill Gee's Report

The 2007 convention of the National Speleological Society was held July 23-27 near Marengo, Indiana. The site was in southeast Indiana, about a 40-minute drive west of Louisville, Kentucky. It is about 500 miles from Kansas City.

Saturday July 21

I left my house at 4:30 in the morning for the drive to Marengo. It was a pleasant drive in clear weather. I arrived about 3:30 in the afternoon Indiana time. After getting registered, I drove across the street to the campground. Even on Saturday there were a lot of people already set up. I found a spot along the north fence about a hundred feet from the road.

The campground is the Crawford County 4H area. It is perhaps 60 acres in a long narrow band stretching west from the highway for several thousand feet. The back parts of the property have some tree lines. There are small family farms on both sides of the property. The quiet area was in the section near the highway and the noisy area was farther back.

After getting the camper set up, I walked around and talked to some friends who had also arrived early. A couple of the vendors were open, but activity was very light.

Sunday July 22

I was up early for the geology tour. There were four motor coaches for the tour and I was on the first one leaving at 8:00 a.m. The other coaches left at half-hour intervals. We were a few minutes late getting on the road, but not bad for caver time. Our bus leader was Kevin Strunk who is a professional geologist working in



Top: The welcome sign at the campground. **Middle left:** This balloon gave convention goers an aerial perspective. **Bottom left:** The convention campground. **Left:** Offerings to Sister Winkie only kept rain away until Thursday evening. (All photos this page by Bill Gee.)

the petroleum field. Kevin wrote most of the tour notes.

The first stop on the tour was a limestone quarry just south of Interstate 64. The quarry has dug down over a hundred feet into the limestone exposing many layers. We got out of the bus and walked around two of the mine pits, looking at the layers.

Our next stop was Wyandotte Cave, a commercial cave owned by the State of Indiana and operated by a private contractor. We went into the cave a few hundred feet to take a look at the exposed layers of limestone. We went to a room where there are layers of flint in the limestone, which were harvested by the native Americans for making arrowheads.

The third stop was another limestone quarry near the town of Corydon. This one was not quite as large as the first, but still an impressive operation. Again we were looking at the layers of limestone exposed by the mining operation. This quarry had run into a problem: they have a cave in the middle of their main pit. The cave itself is not a big problem, but it is filled with mud. They have quarried around the cave. The result is a huge ridge running down the middle of the mine pit.

Another effect of the cave is archeological digs. Before the cave can be destroyed, the State brought in a team of archeologists to find and document any artifacts present.

This quarry has also had some problems with coal seams in their mine. They have one place where the coal was 6 inches thick. It wasn't practical to recover the coal, and the rock around the coal couldn't be used because of contamination. They threw all that material in a scrap pile.

According to the quarry manager, there is a plan (quite a few plans, in fact!) to reclaim the property when the mine is played out. They expect the mine to operate for a minimum 125 more years, so it will be a long time before any of the reclamation plans are executed. By then things will have changed. Given the proximity to both I-64 and Louisville, it will probably be commercially developed.

The next stop was Falls of the Ohio on the north bank of the Ohio River. Louisville is directly across the river from this site. At the Falls of the Ohio, the Ohio River runs on a limestone bed. The action of the river has exposed many acres of stone where fossils are right at the surface. A small museum and interpretive center is

there, and you can walk out into the fossil beds. Every step on the fossil beds is on fossils.

After lunch we drove into southeast Indiana. The original layers of bedrock have been mostly eroded away, but some remnants remain. Wherever there is a sandstone cap, the limestone underneath has not been eroded as much. The result is a moderately level plain with "knobs" sticking out all over.

We went to an area where the Lost River runs. Kevin showed us how the Lost River has eroded a notch in a ridge of limestone that runs for many miles. The Lost River is so named because it runs for many miles and then disappears into some sinkholes. Part of the cave system where it runs has been found and mapped to over 20 miles. The sinkholes are spread out over a couple of miles of river. They can tell how high the river is by looking at how many of the sinks are taking water.

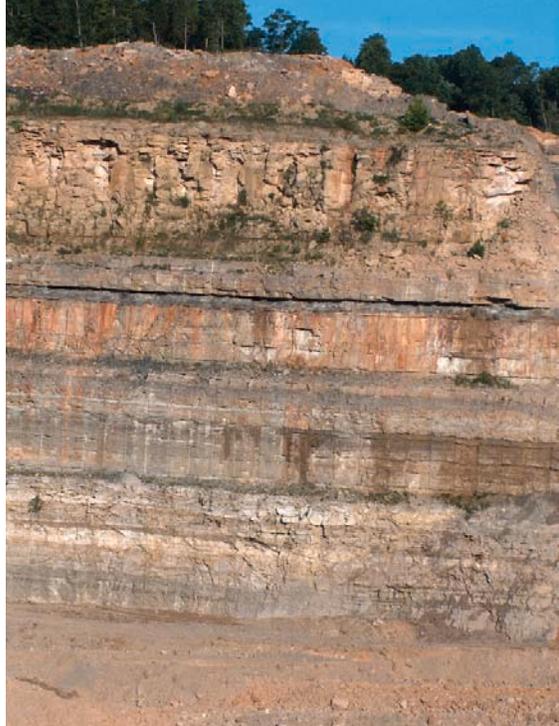
The last stop was Wesley Chapel Gulf. This is a sinkhole with nearly vertical sides. The bottom has a resurgence and sink for the Lost River. The Lost River Cave system runs from the Gulf to the west and north. We walked down into the Gulf to where the stream appears. The stream runs for a few hundred feet before disappearing again.

We arrived back at the campground about 6:00 p.m. There was a pizza party and movie night, but I skipped that. I spent the evening talking with more friends who had arrived during the day. We arranged a cave tour for Perkins Pit for Monday afternoon with Jay Kennedy, Terry Sherman, Jerry Cindric and me. The Monday trip I wanted filled up before I could confirm my schedule.

Monday July 23

This was the first official day of the convention. My first stop was the cave trip sign-up area. Signups for most trips started on Monday. I was able to sign up for a Lost River Cave trip on Thursday. There were no trips planned for Gory Hole, the deepest pit in Indiana.

Over at the school I looked through the vendors and bought a few things. The consignment sale had a flash unit identical to the one I have been using for several years. Unfortunately they did not open for sales until noon, and we planned to leave for the cave trip at 1:00 p.m. I decided to pass on the flash unit.



Top: Many layers of limestone are exposed at this quarry, a stop on the geology tour (photo by Bill Gee). **Above:** The entrance of Wyandotte Cave (photo by Bill Gee).

It turns out that we did not leave for the cave until nearly 2:00 p.m. Perkins Pit is south of the convention site about 20 miles. Jay had the GPS coordinates for it, and after only one wrong turn we arrived at the parking area. One other truck was there.

Jay's GPS coordinates turned out to be off by a bit. It did not help that his GPS unit does not work well under trees. We bushwhacked for almost an hour, looking for the cave. Eventually we went and found the landowner who set us straight about the location. We were off by several hundred feet. The second attempt we walked straight to it. The other team was just finishing their climb out when we arrived.

We rigged our rope, and I went down first. The pit is about 100 feet deep and the drop runs along the wall most of the way. The bottom is only 15 or 20 feet in diam-

eter. There is a small alcove to one side with a nice little dome and some graffiti in it. About 20 or 25 feet off the floor is another passage that leads to the rest of the cave.

Time was short and we were not dressed for it, so all we did was bounce the pit. Terry Sherman decided to stay on top. Jerry, Jay and I all went down and spent 15 or 20 minutes looking around. We found a cache of bones probably from a possum or something similar. There were several snail shells but no live snails. Jerry found a very small earthworm. The pit has a register, but we did not have anything to write with.

After climbing out and derigging, we got back to camp about 6:00 p.m.

The evening entertainment was a Howdy Party and two musical acts. The caterer brought in several large trucks with complete kitchens in the back. They fixed the entire meal right there on site. The food was not bad, though it was not really to my tastes. The sound system was really bad. No one could understand a word the bands were singing. They might have been good or bad: there was no way to tell.

After dinner Rich Raber caught up to me and told me he had purchased that flash unit I wanted. He knew I had been

looking at it and when I did not show up at noon to buy it, he did me a HUGE favor and got it for me. I was completely surprised and very grateful.

Tuesday July 24

In the morning I went through the vendors again, spending more money. There were still no trips to Gory Hole, so I decided to take matters into my own hands. I posted a notice in the cave trip room that Jay and I were going on Friday and needed 2 to 4 more to make a team.

At 10:00 a.m., I went to the rebelay workshop held in the school gym. The instructors had rigged a rope on a 4x4 that was mounted across a corner of the mezzanine railing. The rope was tied at the rafters and on each end of the 4x4. The ties at the 4x4 were the rebelays.

The object was to climb the first rope, rebelay onto the second and continue up to the ceiling. When you cleared the railing going up, you changed over to the third rope and rapelled down to the other rebelay. After crossing the second rebelay you rapelled on down to the floor. This gave everyone a chance to practice crossing a rebelay both going up and going down.

I stuck around several hours, long enough to go through the course twice. There was a variety of vertical gear. Most people ran through the course on frogs. There was one guy on prusiks, another on a Texas system and yet another on a Mitchell. I think I was the only person to do it on a rope walker.

After lunch I did more time at the vendors and went through the art salons. At 4:00 p.m., I went to a digital photo workshop. The goal here was to get a basic understanding of how a digital camera should be set up for cave photography. Everyone had to learn how to set the resolution, the file type, white balance, red-eye and figure out how many flashes the camera used. I learned a couple of things, like how to set the white balance, but mostly I helped two other guys who had Pentax waterproof cameras. One guy had never taken a picture with his because he could not get it to turn on. He had the battery in backwards.



Left: Geology tour participants checking out Wesley Chapel Gulf (photo by Bill Gee).

The evening entertainment was an acoustic jam session. Fortunately the musicians decided to not use the sound system. They just gathered in a circle on the floor of the Expo center and played. I considered bringing my acoustic bass guitar, but it is a really cheap instrument. I probably should have brought my electric bass. There were no bass players and the music suffered some from the lack.

Wednesday July 25

Early in the morning they set up a tethered hot air balloon just north of the school building. I walked over and took some pictures.

At the high school gym, a huge map of Mammoth Cave was laid out on the floor. The map was at a scale of 1 inch = 50 feet. The map represented over 50 years of exploration and survey. It stretched for over 60 feet. After removing their shoes, viewers were allowed to walk on the map.

Thursday July 26

The hot air balloon was running again early in the morning. I went over and took a ride. They were only going up about 50 feet or so, but it was enough to get a feel for how the balloon works and to get a good view of the campground.

I had signed up for a trip to Lost River Cave and it was scheduled to leave at 10:00 a.m. As usual we were on caver time. It was almost 10:30 before everyone was saddled up and ready to roll. I hitched a ride with a guy from Vermont who had a 10 passenger van.

The drive to the cave was about an hour. The entrance we went to was right across the road from Wesley Chapel Gulf, which we visited on the geology tour on Sunday. There were 22 people on the trip, more than probably should have been there. The cave is one of the longest known in Indiana at just over 22 miles.

We went in an entrance called "Lost River." This is an artificial entrance that was dug out from a small shelter cave in the side of a sinkhole. They had to dig about 20 feet to get to the cave. The gate to this entrance is about a foot across and 20 inches long, and you go in feet first.

The tour went down a stream passage that was perhaps thigh-deep in water. We went out to where a well casing comes through the cave. The passage goes another several hundred feet past this, then ends in breakdown. We went out to the breakdown choke and back.

From there we went down a passage called "Dark Side of the Moon." This

passage is 20 feet wide and 6 to 10 feet high. It goes for about 200 feet. The thing that makes it interesting is the floor. The stream has redissolved a lot of the floor through here making for very treacherous footing. It's as if someone took an ice cream scoop about 10 inches across and scooped out most of the floor.

From here we got back in the stream and then went through a crawlway. At the end of the crawlway we climbed up a mud bank about 20 feet high to see the first aid cache. The guides report that the cave has been known to flood this high. We did a short circle tour at the top and then went back down to the stream.

From here we went through another short crawlway to a formation room. After looking at the formations, we went out another dug entrance called Pea Hole. This was a 100 foot cave until someone dug through a pile of rocks at the end. It is now another entrance to Lost River Cave.

The tour was about 3 hours in the cave and covered a bit less than 2 miles. We got back to the campground about 4:45 p.m. I took a quick shower and had dinner, then hopped a bus to the NSS Salon awards program.

The salon on Thursday and the banquet on Friday were both held at Marengo Warehouse. This is an underground limestone storage facility with about 30 miles of passage. It is HUGE! We had one small corner that had room for over a thousand seats and plenty more besides.

The chairs they got for this event were something from a torture chamber. They were awful! The acoustics were really bad, too, and the sound system was not installed correctly to compensate. The result was that it was very noisy from all the people talking and no one could hear the speakers on stage.

In the first half of the program, Gary Johnson was honored with a Merit Award and Best of Show for layout on two Guano covers. Ben Boling and Rick Hines did the photography for those two covers and also won awards. When intermission came up at about 8:30, they announced that a thunderstorm had gone through the campground and done major damage to tents and awnings. The busses were going to run early for anyone who wanted to go back.

I took an early bus back to see how badly my campsite was damaged. When we arrived at the campground a guy jumped on the bus and hollered a couple of announcements. We were to not move our vehicles, assess the damage and if we needed a place to sleep there were Red Cross cots in the school gym.



Above: Opening the gate to Lost River Cave (photo by Bill Gee).

My campsite had minimal damage. My screen room was blown down and ripped apart, but it was a cheap piece of junk when I bought it. My truck had some dings—\$2,000 worth!—on the side where a big canopy smacked into it. The camper was not damaged. I had left one of the roof vents open a bit and it blew in some water. It wasn't much, just enough to make a small puddle on the floor.

After cleaning up my site I helped some others near me whose tent was ripped up. Their bedding was all wet and they wound up sleeping over at the school for two nights.

Jay Kennedy did not go to the photo salon. He had no damage to his campsite. Jay said there was only one injury. One lady got hit in the face by a flying tent pole and had to have stitches. Otherwise people were simply wet and a bit scared.

Friday July 27

At the beginning of the week I decided I wanted to get into Gory Hole, the deepest single drop in Indiana. There were no advertised trips, so I put up my own notice at the cave trip room. Eventually 5 people signed up.



The other people were Jay Kennedy, Tommy Shifflet, Rory Tinston and Jon Le May. We went in two cars for the hour-long trip to the cave. Thanks to Jay's GPS we had no trouble finding the parking spot. The cave is about a 5 minute walk up a logging trail and is surrounded by a split rail fence.

Jay and Tommy rigged the hole so that the rope was hanging in the center rather than against one side. There are two ways to rig the pit. One way gives a continuous drop to the bottom but will run in a waterfall. The other way is to go down the first rope about 15 feet, then around a shelf to where some bolts are set. Rigging off the bolts gives you a drop that is out of the waterfall.

As it turns out, the waterfall was not flowing at all, not even a trickle. We rigged both drops. Jay and I used the bolted drop and the others used the long drop. While Jay was rigging the bolted drop, I hung out on the ledge. When Jon came down he was having a lot of trouble getting his rack to slide. We determined that it was threaded wrong. The tail of the rope was coming out the left side and wrapping around the maillon. That made it near impossible for Jon to feed the rope. We clipped him in with a QAS, then rethreaded the rack. After that he had no trouble.

At the bottom of the pit there is several hundred feet of cave. You climb down a small hole and up a pile of breakdown to a place where a 28 foot rope is permanently rigged. We were a bit leery because we could not see the top of the rope, but Tommy decided to try it anyway. When he got to the top he reported that the rigging was solid and backed up, and the rock where it touched was worn smooth and did not need a pad. Rory and I also climbed up. At the top of this climb is several hundred feet of crawling passage that ends in another breakdown room.

Tommy, Rory and I all went to the terminal breakdown room. There were not many decorations. A few high leads in the room look like they might go somewhere. We returned to the main pit, and all five of us climbed out.

On the way back to the campground just south of Paoli, Indiana, we came across a serious accident. Apparently a tractor-trailer had run over a car with the trailer. The car was in two pieces with the engine and front wheels on one side of the road and the rest



Top: This style of canopy snapped like twigs in the Thursday storm (photo by Bill Gee). **Left:** Jay Kennedy waiting at the bottom of Gory Hole (photo by Bill Gee).

of the car on the other. The semi was stopped because the front axle on the trailer was crooked and had several flat tires. We did not stop.

We got back to the campground about 5:00 p.m. I took a quick shower then hopped a bus to the banquet. The banquet was held in the same place as the salon program on Thursday. The chairs, acoustics and sound system had not improved. The early entertainment was a classical pianist who is also a caver. He was very good, but almost no one could hear him over the din of conversation.

The meal was served cafeteria style from several tables lined up at the back. The lines were long and moved slowly except at the vegetarian line. Quite a few people jumped over there just to get through a bit faster. The meal was prepared by the same outfit that did the welcome banquet Monday evening. It was OK but not great.

The awards were presented after the meal. It was a fairly short program. We were all back at the campground by 10:00 p.m.

Saturday July 28

I got up early, packed the camper and drove to southern Illinois. I was signed up for a survey weekend at Equality Cave in the Shawnee National Forest south of Harrisburg. It took a while for everyone to find the campground and the cave—typical caver time! Jack Ward and John Lovaas are leading the project to survey Equality Cave. It has been surveyed in the past, but the maps are neither accurate nor complete. The Forest Service has recently gated the cave to protect it from vandalism.

Equality Cave is a maze. I've never seen anything like it. You can't go 20 feet in any direction without hitting a cross passage. The passages are typically very narrow, only 1 to 3 feet wide. The ceiling is flat, between 10 and 30 feet above the floor of the cave. The survey is pretty much nothing but loops.

Helping on Saturday were Phil Moss, Dan Lamping, Tony Schmitt and a couple of new cavers whose names I did not get. After we were in the cave, Rich and Rob Raber showed up to do some cleanup. The cave seriously needs cleaning. There is trash, string and graffiti everywhere! We did only a few hours of survey late Saturday afternoon, then drove back to the campground for a meal prepared by Jack Ward.

Sunday July 29

Everyone had breakfast and took off, leaving me, John and Jack for the day's



Above: Bill Gee surveying in Equality Cave (photo by Tony Schmitt). **Right:** Beverage offerings at the Friday night banquet (photo by Bill Gee). **Below right:** The evening's entertainment at the banquet (photo by Bill Gee).

survey. The three of us got into the cave by about noon and surveyed for about five and a half hours. In that time we did a bit over 200 feet of survey. The longest shot was less than 20 feet and we had two shots under 4 feet. We completed at least four loops during the day.

After we got out of the cave and changed, we went into Harrisburg for dinner at a Mexican restaurant. Back at the campground, John and Jack went for a swim while I burned CDs of the pictures Tony and I took over the two days.

Monday July 30

We were up early, had breakfast and packed up. Jack had to be at work in Chicago by 1:00 p.m., and I had a long drive back to Kansas City. We were on the road by 7:00 a.m., and I was home shortly after 3:00 p.m. ●



NSS 2007 Convention:

Gary Johnson's Report

NSS conventions over the past few years have been held at far off locations, such as California and Washington. The travel distance had proved a successful deterrent, so I hadn't made the journey. But with the NSS 2007 Convention headed for southern Indiana, only a few minutes away from I-64, I had no excuse this time to not make the trip. Plus the convention program was chock full of interesting events and sessions, including a strong collection of sessions, all-day field trips devoted to geology, a biology field trip, and an off-trail trip to the most famous cave in Indiana, Wyandotte Cave. So I registered early to reserve spots on some of the prime trips. Meanwhile I downloaded the session descriptions and started circling the ones that grabbed my interest (and there were lots of 'em).

Sunday, July 22

The Crawford County 4H Fairground served as the convention campground. It's located on the Crawford Upland, which is a sandstone capped plateau. To the east, a sinkhole plain feeds water into thick limestone layers below the sandstone.

Sunday's main activity was a geology tour. Several buses were used, with each bus using a staggered start time. This kept the sites from being inundated with visitors. I found I was on the same bus as Jo Schaper, so we sat together.

First, on the schedule, Tower Quarry. This stop allowed us to see the Indiana stratigraphic column where a 150-foot-high wall of rock was exposed. An employee from the quarry operation joined our crew. At the two major stops at the quarry, he talked about the exposed rock layers and how they were being used commercially.

On the way to our next major stop, we pulled into the parking lot of a restaurant with a majestic overlook high above a bend of the Ohio River. Far below, barges pushed traffic across the wide expanse of water. Then, we jumped back on the bus and rolled forward into the Blue River Valley and our next destination, Wyandotte Cave.

Running commercially for over 150 years, Wyandotte Cave was long touted as one of the longest caves in the world, but



Above: Fossils litter this shelf of limestone at Falls of the Ohio (photo by Gary Johnson).

when the state decided to purchase the property in the 1960s, the cave finally received a good survey. Maps had been published in the past, but they included no scale, allowing for the same boastful thinking that had been prevalent at Mammoth Cave for many years. But while surveyors at Mammoth Cave eventually discovered mileage far beyond the figures originally boasted by the cave owners (and later the National Park Service), at Wyandotte Cave, the survey discovered the cave length had been multiplied by several fold. The new survey shrank the length of the cave from the 23-plus miles claimed for over 100 years, to less than six. Discoveries in recent years have pushed the total length close to 10 miles. Regardless of the official length, however, this is still an impressive cave, with huge dry passages similar to Mammoth Cave, which it has been compared with frequently.

For the geology trip, we just took a peek at the entrance passage. Gordon Smith, the owner/manager of Marengo Cave, who now manages Wyandotte Cave, provided us some introductory comments as we stood at the entrance, and then we stepped inside the cave. After descending a long flight of concrete stairs we reached a wide, high-ceiling room which has been heavily modified over the years by saltpeter mining operations. Some sample saltpeter leeching vats and a kettle sits to the left at the bottom of the stairs.

We would only journey about 700 feet into the cave, along a passage named

Washington Avenue. This passage contains no formations, but it still impresses due to its size. Beyond the entrance steps, the trail is dirt. The Rothrock family, which operated the cave for over 100 years, wanted to maintain a natural environment inside the cave, so they avoided creating improved trails. The current owner, the state of Indiana, has similarly resisted the temptation to paved paths.

We ended our trek up Washington Avenue at the point where the passage splits. To the left and up a slope is the Old Cave. This was the only known continuation of the main passage in the first half of the 19th century. Commercial tours no longer typically go to the Old Cave, although this section contains some of the cave's most famous features, such as the Pillar of the Constitution (a massively thick column). To the right, at the end of the entrance passage, the commercial trail now twists to the right, neglecting the Old Cave, and dropping into the New Cave, which was discovered in 1850. Gordon Smith talked a little more at this point, pointing out that the ceiling here is where many Indiana bats congregate in the winter, when the cave is closed to protect the hibernating colonies. Then we retraced our steps back to the bus.

We drove through Crawford State Forest on the way to the town of Corydon and our next destination, Corydon Crushed

Stone Company Quarry. From my point of view, this was one quarry too many for the field trip. We didn't learn much here, although we got the opportunity to walk around on an exposed rock layer high above the active part of the quarry. But I couldn't help but think we were wasting time here, that there must be plenty of other sights more worthwhile than this.

If I had any doubts about the stops on the agenda, those doubts were shelved by the next stop, Falls of the Ohio. This is one of the most significant fossil sites in the world. We parked at the state park's visitors center, and then they turned us loose. I headed directly for the limestone shelf where most of the fossils could be found. These aren't little fossils. Some of them are impressively large, and they're literally packed fossil on top of fossil in a Devonian-age reef.

At this point, the Ohio River posed a major problem for all navigation. The river became extremely shallow. Buffalo used to cross the river at the falls as the water poured over and around a vast shelf of resistant rock. Riverboats were sometimes stranded here for months. Captains who knew the navigable channel could charge a premium price for skippering boats through the myriad of channels and islands. Eventually, a lock system and dam was built.

Standing on the shelf of rock, I was first taken by the proximity of Louisville, just a few miles up river, its skyscrapers clearly visible. A low dam runs across part of the river, from the north to a wide shelf of rock on the south. The dam—an ugly, low concrete wall—is a huge blot on the scenery. It made me wonder what this site looked like before the dam was introduced. Was this shelf under shallow water? I'm not sure.

Here the exposed rock beside the river is chock full of reef fossils, cabbage-sized *Eridophyllum*, tubes of *Siphonophrentis elongata* as long as your arms, masses of broken coral fragments cemented together like conglomerate rock. This is a genuinely amazing place. I spent about 40 minutes of our one hour stop wandering past the shallow pools, inspecting the fossils. Then, with time quickly slipping away, I headed for the visitors center. I found it contains some very nice and informative exhibits. It's definitely worth more time than I had to give it, but one hour isn't enough time

for this site. I'll have to make a point of returning in the future.

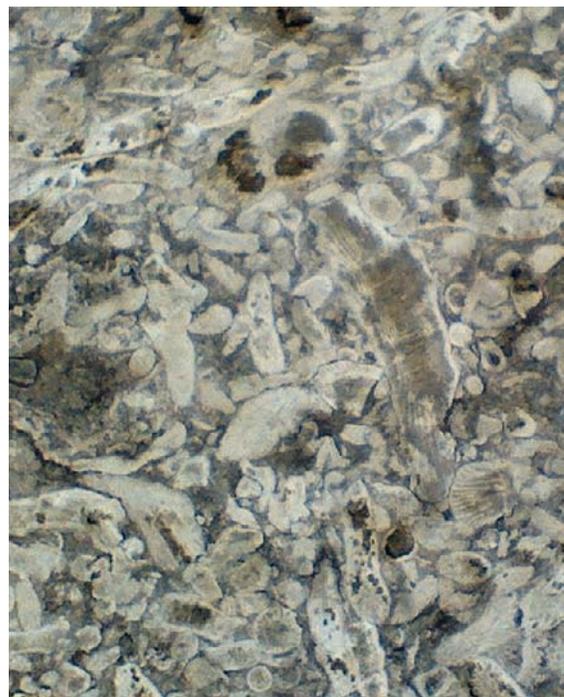
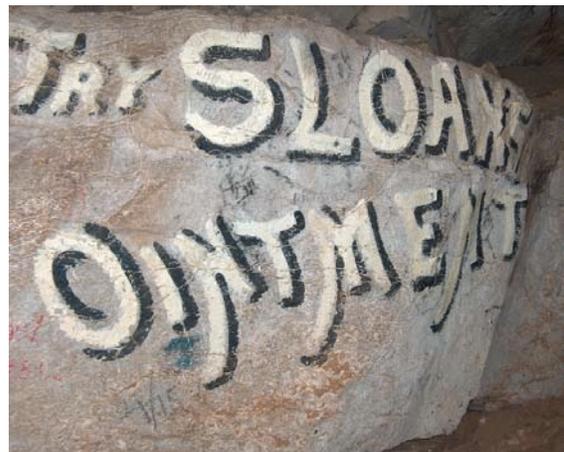
It was good to get out of the bus and walk for a while, but now it was time to get back on the bus for our longest drive. We had ventured far to the south for Falls of the Ohio. Now we had to travel far to the north, to the Lost River Karst Basin. That made for a long and deadly dull trip.

All would have been okay if we had a guide who could have provided us with some information about the sights along the way, but alas, we didn't have such a guide. What info we got was of this variety: "There's a really neat sink hole over on the far side of that line of trees, about a half mile away." Hmm, we couldn't see anything. We'd zip down the road. And all might have even been okay yet if we'd have really zipped down the road. But neither our guide nor our bus driver seemed to know how to get to our next destination. We zigged and zagged and circled. Weren't we on this road before? Hmm. Over an hour had passed since we left Falls of the Ohio. This was getting mighty old. Without insights about the Lost River geology/hydrology, we were wasting precious time.

Finally, we reached our destination and we got out of the bus. Wesley Chapel Gulf is a large sink hole, approximately eight acres in area, situated directly over the Lost River system. The sides of the sinkhole are steep, up to 100 feet high. A trail curls down into the sinkhole and provides access to the brief stretch of river that percolates through the bottom of the sink. Before we made the short hike into the sinkhole, a member of the Lost River Conservancy provided us with a short talk about the ongoing work taking place to survey the Lost River system. When the survey is completed, this system will almost certainly be the longest in the state of Indiana, at well over 20 miles.

We hiked down the trail to the bottom of the sink. The trail is fairly easy. Soon we were standing on a mud slope, looking down at the muddy water at the bottom.

Top: A leeching vat at Wyandotte Cave (photo by Bill Gee). **Next to top:** A billboard painted along the tour route in Wyandotte Cave (photo by Bill Gee). **Next to bottom:** Fossilized coral fragments are thick in the limestone of Falls of the Ohio (photo by Gary Johnson). **Bottom:** A cabbage-sized fossil at Falls of the Ohio (photo by Gary Johnson).



On the far wall, cave entrances beckoned. Some members of our party made their way across the muddy slope to the caves and peeked inside. At this point, we were way behind time, so we didn't get to spend much time here before our guide was rounding us up.

We had one final stop on the agenda: Orangeville Rise. Also part of the Lost River system, Orangeville Rise is a spring rise pool located right beside a road intersection. Houses sat nearby. Our guide wasn't much help here, telling us the rise pool was over 100 feet deep. Maybe he was thinking of the True Rise of Lost River, which wasn't on our agenda. The convention guide book said the True Rise is over 160 feet deep and Orangeville Rise is only about 30 feet deep.

That was it. Back to the bus and another long drive and we were back at the campground. For a much better field trip, see my notes on the Thursday Biology Field Trip led by Dr. Julian Lewis. His field trip involved a lot of drive time also, but there was always a pay off with valuable insights provided by the guide once we reached our destinations. That makes all the difference.

Monday, July 23

While some of the other KCAG cavers were talking about going caving on Monday, I just wanted to take it easy and get acquainted with the grounds, the sessions, and the vendors (primarily the bookstores, of which there were three, count 'em, three!).

I started with surveying sessions, which dealt with subjects such as the use of WALLS and Adobe Illustrator for digital maps. Maybe the most interesting of these sessions involved the use of an electronic survey device that collected an array of distances—walls, floor, ceiling—all at once. Boom. Everything. Conventional surveying could become obsolete. The electronic survey device is a little pricey, at over \$1,000. The price will no doubt come down some day, and when that happens, the world of surveying could completely change.

In the afternoon, I checked out some of the Biospeleology sessions. First off, I made sure to attend Dr. Julian Lewis's session on "The Subterranean Fauna of Indiana." He gave us a very quick review of the tiny critters that call Indiana groundwater their home. Lewis is one of the most



Above: The Orangeville Rise, which is part of the Lost River System, flows to the surface beside a residential area (photo by Bill Gee).

highly respected experts in cave biology, and he heads his own groundwater consulting company.

I also made time for watching two rarely screened videos of television dramas from the 1950s based on the death of Floyd Collins. These were fascinating productions, with surprisingly effective portrayals of cave environments and the conditions facing cavers. The second drama was marred by an actor riffing on James Dean in his performance as Floyd's brother.

Tuesday, July 24

Lots of good sessions on Tuesday. It was tough deciding which ones to attend. I started with the spelean history sessions and heard Gary O'Dell talk about using historical archives to discover forgotten caves. Then I headed for the cave restoration sessions and heard NPS park ranger Rick Olson talk about restoration in Echo River and River Styx at Mammoth Cave. I stuck around for the next session about Parks Ranch Cave in New Mexico because I'd visited this cave a few years ago. A boy scout named Lucas Middleton talked about cleaning graffiti. Then I returned to the history sessions for more from Gary O'Dell, this time about springhouses. Kevin Patrick talked about the history of show cave development, and John Benton provided some little known facts on

Wyandotte Cave. In the afternoon, Stan Allison and Aaron Stockton talked about exploration in Dry Cave in the Guadalupe Mountains of New Mexico, and Andy Armstrong talked about recent exploration in Lechuguilla Cave. Plus, I caught Mick Sutton's presentation on mapping and biological survey in Mark Twain National Forest.

Wednesday, July 25

For Wednesday, I signed up for an off-trail trip in Wyandotte Cave. This trip was led by John Benton, who had considerable experience in this cave. We drove to the cave and geared up at a picnic pavilion, while waiting for a spot to open between commercial tours when we could enter the cave. When a gap of a few minutes appeared, we headed into the entrance and down Washington Avenue. This is large passage, similar in size to what you encounter in Mammoth Cave. I was expecting that we would enter into the Old Cave, but John led us into the New Cave section, where the commercial tours now lead. Much of the New Cave was on the commercial tour route at one time or another in the past. Most all of the cave that we saw was big and wide and well trod. We saw areas that hadn't been on the commercial tour in many years, such as the cave beyond the Auger Hole, a famous

constriction. I was expecting the Auger Hole to be a fairly tight crawl. For many decades, visitors struggled through this constriction, but it has been opened up so that visitors can now walk right past.

We also saw areas that all commercial trips visit, such as the justly famous Monument Mountain. The latter feature is genuinely incredible, a stalagmite on top of a huge pile of breakdown. That in itself isn't that unusual, rather it's the perspective that makes this area so unique: from the base of the breakdown pile and looking up at the stalagmite, it appears that a huge tube like passage continues on the other side of the stalagmite. This is an optical illusion. You're actually looking at the dome in the ceiling above the stalagmite. This dome is elliptical in shape and from the perspective at the base of the breakdown it appears like a giant halo around the stalagmite. One of the most unusual sights I've ever encountered in a cave.

One of the highlights of our tour was a side trip into Milroy Temple. This large room, one of the largest in the cave, can only be entered by crawling through Worm Alley (which really isn't as bad as it sounds). After making the relatively easy crawl, you pop out in a huge room with a 50 foot ceiling. A large cavity in the wall to the right is a waterfall during wet weather. But typically you don't see much water in Wyandotte Cave. No one has ever found the stream level. This is a big, dry cave.

We saw many, many signs of past visitors. During commercial tours decades ago, guides encouraged the visitors to build rock cairns devoted to their states or towns or groups. In this way, visitors helped forge easy-to-walk trails through some of the cave's more rock-strewn rooms. John also pointed out the small blocks of soft rock that past visitors had marked with their names and left on ledges (like business cards on a restaurant wall). These small blocks fill the ledges for a long stretch of passage, testament to the hordes that visited this cave over the past 150-plus years.

The most decorated area that we saw was the Helectite Gardens. Here, a thick mass of helectites covers niches to both the left and right of the passage for several hundred feet. This is a very impressive area of the cave. However, for the most part, Wyandotte doesn't have many formations. Like Mammoth Cave, the cave impresses

through its large easy-to-navigate passages more than through its decorations.

Thursday, July 26

On Thursday, I had the privilege of joining Dr. Julian Lewis on a tour of several sites of biological interest. Dr. Lewis is an expert on Indiana microbiology. First up, we visited Spring Mill State Park. Here we boarded flat-bottomed boats and floated into Upper Twin Cave in search of cave fish and cave crayfish. The state conducts a low-key commercial operation here. Relatively low impact. The cave fish in Twin Cave aren't the little cave fish we have back in Missouri. These fish are easily twice as large, although otherwise they are fairly similar. As we floated for several hundred feet into the cave, Dr. Lewis and the boat tour guide pointed out numerous cave fish. I lost count. But we easily saw at least 30 fish and at least a dozen crayfish.

Our group had split in two. While one group was in the cave, a park biologist gave the other group a quick tour of nearby virgin forest. Among the sights, we saw shagbark hickory trees with unusual long strips of bark that curve away from the trunk.

After Twin Cave, our groups joined together again, and we headed for Bronson Cave, also in Spring Mill State Park. A trail leads to an overlook at a collapsed section of cave passage. To the left, Upper Branson Cave, and to the right Lower Branson Cave. William Elliott of the Missouri Department of Conservation was helping out with the biology field trip. In the collapsed section of cave passage, he and Dr. Lewis searched for cave critters in the shallow pools. They didn't find many critters here. But then we wandered inside Lower Branson Cave and encountered a surprising number of critters. That's why we were here. This is one of the most biologically diverse caves in Indiana. We saw planaria and lots of other tiny creatures. Everyone got into the act, turning over rocks. On one rock I found no fewer than five planaria (a small flatworm). We also saw more cave fish and crayfish.

Next up, we headed to the Blue River, where we stood on the gravel bank while Dr. Lewis talked about finding super rare subterranean critters living amongst the rocks in this area, where the water table seeps through gravel and into the river. At



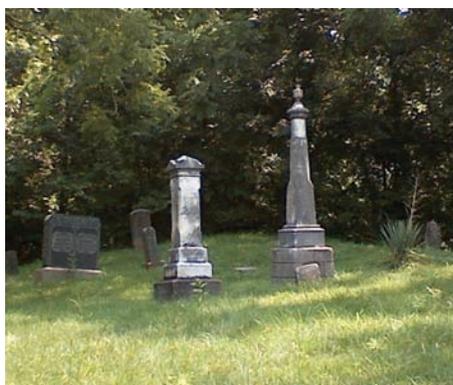
Above: Monument Mountain in Wyandotte Cave (photo by Gary Johnson).

this location, the Rothrock family had once run a mill over a century ago. The Rothrock's owned and operated Wyandotte Cave for over 100 years. We walked past their family cemetery on the way to the Blue River stop.

Dr. Lewis led us on a quick trip into Wyandotte Cave. The emphasis was less on biology than it was on the drop-dead incredible sight of Monument Mountain. This was my third trip to Wyandotte Cave during the NSS Convention, but I'm not complaining. This trip allowed me to get some better photos.

After Wyandotte Cave, we headed to Marengo Cave, where we got to see all the cave that is on the commercial tours. This is a very beautiful cave, with loads of formations, flowstone, and dripstone. The cave is owned and managed by Gordon Smith, who does such a good job that the state enlisted him to manage operations at Wyandotte Cave.

When we arrived back at the campground, I could see dark clouds rolling in from the west. I decided things didn't look good, so I prepared my tent for a storm. Then I headed for the bus to the evening's main activity: the NSS Salon awards presentation, which was being held at an underground storage facility in the nearby town



of Marengo. The facility had huge spaces inside. Big enough for a tractor trailer to easily maneuver. It was certainly chilly in the underground warehouse. Most people had dressed for the conditions, but it was still sort of nippy to sit there for a long spell as awards were handed out.

I was lucky enough to win the Best of Show award for the Bridal Cave cover of *The Guano*. I got an award for the layout and Rick Hines got an award for the photo. In addition, we won a Merit Award for the TAG issue of *The Guano*, which had a stunning photo of Stephen's Gap Cave on the cover, courtesy of Ben Boling.

Not long after I picked up the awards, the award show took an intermission. And during the intermission, we got some bad news. A storm had hit the campground. According to the NSS representative delivering the news, three fourths of the tents were damaged. I knew my tent should be okay, but then I thought of the books I had purchased earlier in the week. They were still sitting in a tub inside the tent. I had visions of the books floating in a pool of water, so I decided to head back to the campground immediately. The rush to the buses was fairly orderly, but it still took several minutes to get onto a bus.

Back at the campground, things weren't nearly as bad as I had imagined. Tent canopies had taken most of the damage. Tents that were properly tied down with guy lines were typically okay. One large group tent that wasn't properly tied down was picked up by the wind and thrown across the street, where it took out a fence. The main damage came from flying debris crashing into vehicles. Bill Gee's truck took over \$2,000 worth of damage. Most of my trouble was minor in comparison: high winds had blown rain under the tent fly and drenched most everything exposed in the tent. So I spent most of the evening sopping up water and drying out the tent. But because I'd stowed the bedding in my truck, I still had a nice dry place to sleep.

Left column: (Top) The entrance of Lower Bronson Cave. (Middle) Bill Elliott and Dr. Julian Lewis looked for flatworms in this shallow pool. (Bottom) Cave fish flourish in Upper Twin Cave at Spring Mill State Park. **Right column:** (Top) A state park guide talks about the virgin forest at Spring Mill State Park. (Next to top) Shagbark Hickory in the virgin forest. (Next to bottom) Dr. Julian Lewis shows a critter to biology trip participants. (Bottom) The Rothrock family cemetery near Wyandotte Cave. (All photos this page by Gary Johnson.)

Friday, July 27

On Friday, I was supposed to go on a caving trip to a rarely visited cave that can only be accessed through a spring outlet. Needless to say, thanks to all the rain, this trip was cancelled, which was okay with me. I needed to finish drying out my tent and campsite. I checked the weather report to see if any more rain was on the way, and the report wasn't good. More high winds and rain were forecast for the afternoon. I was using a large tent that could sleep an entire family. I had wanted the extra room because I was camping in the same spot for an entire week. But it was a cheap tent. It had survived one storm. Would it survive the next? I had severe doubts. I decided I wasn't going to push my luck and started packing as dark clouds started building to the west.

After everything was packed, I headed for more sessions. I caught sessions about the "Cave of Our National Parks and Public Lands." The highlight of these sessions was an excellent presentation by Scott House on "Managing Caves in Ozark National Scenic Riverways: A Public and Private Partnership" in which he had some very nice things to say about the work that KCAG did monitoring caves on Jacks Fork in spring 2006.

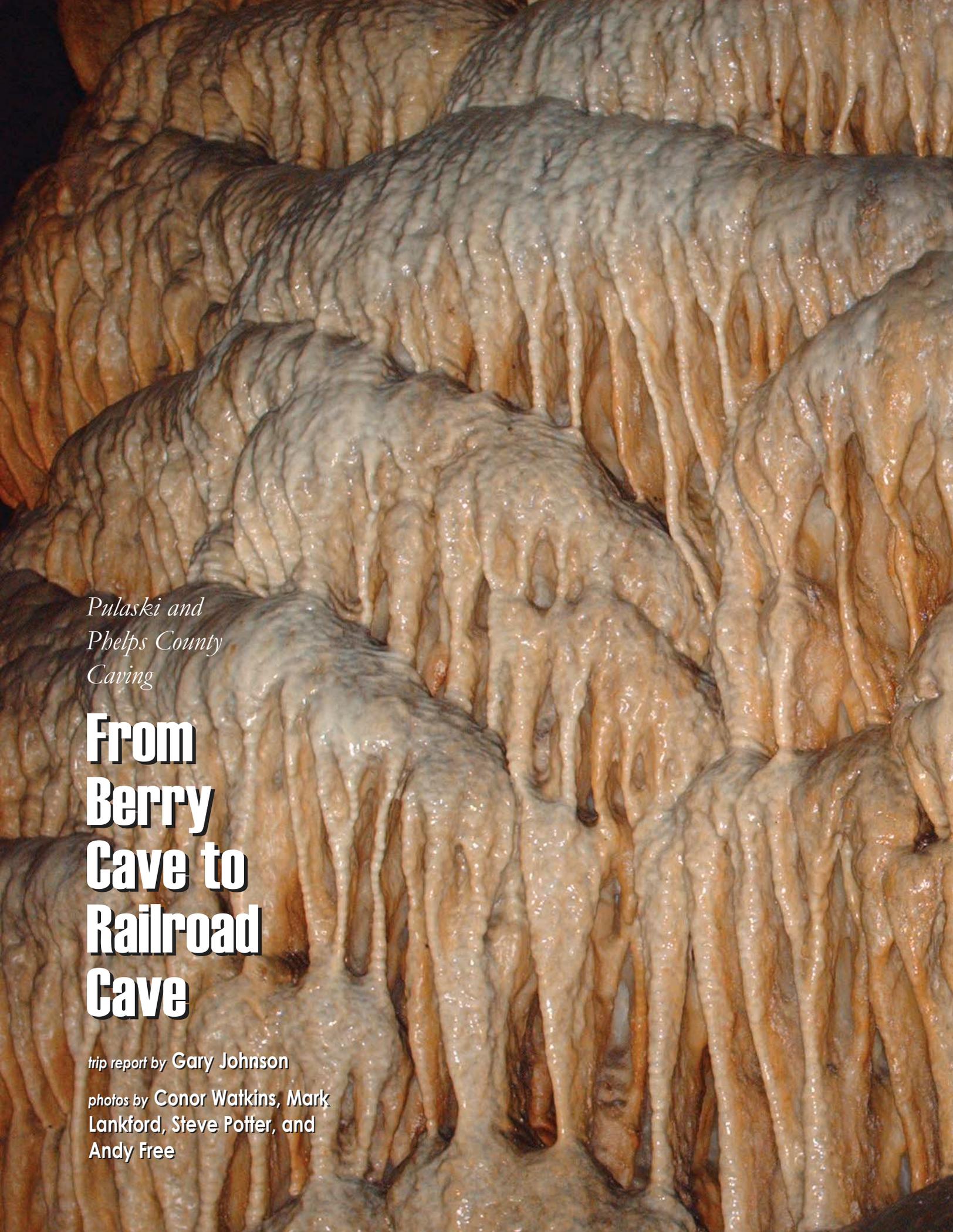
After Scott's presentation, I hit the road for home.

Overall, this was a good convention and a great use of vacation time. The NSS sessions were very informative, the opportunities to meet other cavers were excellent, and the shopping was great (especially for books).

The NSS 2008 Convention will be in north Florida. A video pitch for the Florida convention was given during the NSS Salon awards program, and it made me seriously consider taking the trip next year to Florida, even though the caving opportunities for non-divers like me will no doubt be somewhat limited. ●



Left column: (Top) The Crystal Palace in Marengo Cave. (Middle) The Dripstone Trail entrance at Marengo Cave. (Bottom) The natural entrance to Marengo Cave was in this sinkhole. **Right column:** (Top) In the 1800s, visitors to Wyandotte Cave frequently came up Blue River. (Middle) Dr. Julian Lewis talks to biology trip participants about the rare subterranean creatures he discovered in gravel along the Blue River. (Bottom) The Elephant Head in Marengo Cave. (All photos this page by Gary Johnson).

A close-up photograph of cave formations, likely stalactites or flowstone, showing a complex, textured surface with many small, rounded protrusions and deep crevices. The color is a mix of light beige and brown, with some areas appearing more saturated and darker. The lighting is dramatic, highlighting the wet, glistening texture of the rock.

*Pulaski and
Phelps County
Caving*

From Berry Cave to Railroad Cave

trip report by Gary Johnson

*photos by Conor Watkins, Mark
Lankford, Steve Potter, and
Andy Free*



This trip originated out of my desire to see Railroad Cave. I had talked with Andy Free about Railroad Cave at an MVOR and he said a landowner change had considerably improved the access situation. Now the landowner was caver friendly and trips could be made. This was certainly good news because the cave had been off limits for at least a decade.

However, in the weeks leading up to the trip, some communication breakdowns with Andy had left me skeptical that we'd have access to Railroad Cave. So I arranged for additional caves to fill out the weekend. If we got to see Railroad Cave, fine. If we didn't, well, we'd have plenty to keep us busy.

For starters, I secured a ringer as the alternate main attraction: I contacted the landowner of Berry Cave and got permission to visit his cave. The landowner is a very nice man. He's trying to be selective in who gets to visit the cave, and I suspect he wanted to say no to me. But I offered that we would provide

him with photos of the cave, and I think that made the difference.

In addition, I added Mill Creek Cave to the itinerary. If we had time, we could also visit some sites in the Kaintuck Hollow area. That made for a full Saturday, and Railroad Cave would be the Sunday cave. If Railroad Cave somehow fell through, we would head to Merrell Cave instead.

On Saturday, August 13, we met at Roubidoux Spring in Waynesville at 10:00 a.m. Everybody was on time. Trip participants: Mark Lankford, Steve Potter, Conor Watkins, Danny Stark, Miranda Smith, and Dale Curtis. While waiting for everyone to arrive we milled around the spring and took photos. Then we headed for Berry Cave.

Berry Cave

IMPORTANT! Berry Cave is on private property. Arrangements must be made in advance with the landowner in order to visit this cave.

Previous page: Flowstone in Berry Cave (photo by Mark Lankford). **Above:** A beautiful white stalagmite in Berry Cave (photo by Steve Potter).

The landowner was expecting our arrival. When we pulled up in front of his house, he walked down the driveway to meet us. I talked with him for a few minutes about the cave and its history. He was very helpful and gave us a few extra hints about how to find the cave. He also told us we could park near the old family house beside the cattle feeding area—provided no cattle were in the area. None were. So we opened the gate and pulled onto the property.

Temperatures were soaring toward 100 degrees. The walk to the cave first took us into the open, where the sun beat down on us unmercifully, but we were fresh and rested and ready to get out of our vehicles and get some exercise. The sun was brutal but tolerable. Sun-bleached rocks the size of melons



lined the creek bed. The creek only carried water here during heavy rains. This is a sinking stream. A mile upstream, the creek carries water. A mile downstream, you'll see water. But in this section of the creek, almost all water disappears underground—to reappear at Roubidoux Spring.

I didn't find a trail leading up the hill. Maybe there was a trail there somewhere in the brush. But I didn't find it. So we went bushwhacking. I had heard several people say the route up to the cave was steep and the cave entrance small. So I was prepared for the worst, but we found the route up to the cave wasn't too bad. I had a GPS location, but the thick trees had disabled my GPS unit's satellite reception. So I just followed the topography. We walked right to the cave. Piece o' cake. For the last 50 yards plus we did encounter a faint trail and it led directly to the cave entrance.

According to Jonathan Beard, the current landowner's father had trained a dog to lead visitors up to the cave entrance. When I had mentioned this dog to the landowner, his eyes got a little misty. I apologized if I brought up any bad memories. He said, "Just remembering a good dog."

We didn't waste much time getting geared up at the entrance. Some militant flies were dive bombing us, so we quickly entered the cave. The entrance is a relatively small slot at the base of a dolomite outcrop. We slid down the slot and into the cave. Almost immediately, the cave is walking height. And almost immediately, you're confronted by an impressive display of formations. Some of these formations are sadly broken. As the landowner told us, he has encountered people with buckets of broken formations leaving the cave. So in many cases I suppose restoration isn't possible because the pieces are missing. Regardless of the broken formations, however, the cave is still very impressive. Many formations are just too big and bulky to allow for easy breakage.

The entrance area is a plateau. To the right, a canyon passage drops alongside the plateau. Here are the biggest formations in the cave. The ceiling height soars to 30 feet, and the formations rise in large mounds of flowstone that tower to the ceiling and become columns. I looked for a path through this collection of columns and found a path on the far right that first curled under a shelf of flowstone and then popped up above the flowstone. This route required some minor climbing. All easy stuff. This put us in the cave's famous Table Room. Here, large sections of ceiling

Left: Huge columns rise beside a canyon passage in Berry Cave (photo by Conor Watkins).

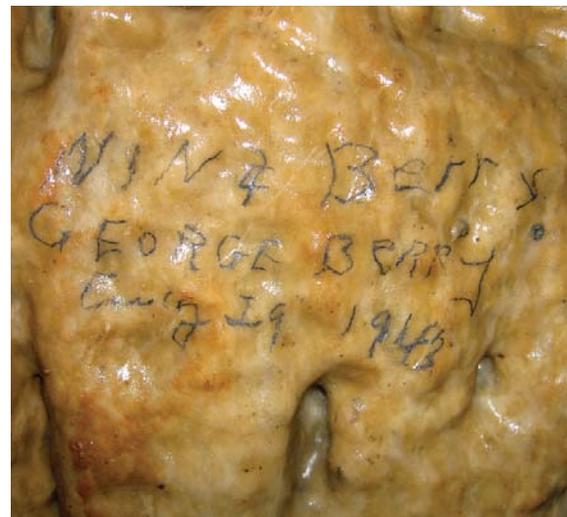
that held heavy masses of draperies and stalactites had peeled away in horizontal planes. These planes now rested on the passage floor, with flat tops that resembled giant dinner tables, from 4 to 5 feet high. In this area we saw many signatures on the flowstone. These aren't recent examples of graffiti. These are signatures of historical interest. The careful cursive writing gives away the age of these signatures. We found the signature of the landowner's grandfather, as well as the landowner's own signature. Berry Cave has been known for many decades and visitors have left much evidence of their presence.

In addition to signatures, we found many salamanders in this area. Cave salamanders and slimy salamanders clung to the flowstone and ducked into curtain-like folds. We had to be careful with nearly every step because the salamanders were so plentiful.

After taking photos here, we returned to the canyon and took several more photos. This area of the cave is easily as impressive as just about any commercial cave that you'll encounter. Mark got some nice close-ups of flowstone, emphasizing the texture. Conor got some good shots of entire columns, and Steve got a shot of a beautiful beach-ball-sized white stalagmite with rippled edges.

From here we headed deeper into the cave. Formations become less plentiful after this. First we encountered a wide room with a sandstone ceiling. Breakdown from the ceiling littered the floor in a tremendous mound, named the Sandstone Mountain. Beyond here, the cave stream meanders in a canyon, causing a sticky area with red clay that sucks at your boots. An unusual formation stands sentry at this point, on the high clay bank to the right. It's a wide column with an apron of flowstone at its base. Water has removed clay beneath much of the flowstone. A breakdown rock has fallen on the flowstone apron, breaking through but remaining stuck in the hole that it smashed. A fairly unusual sight. From here, the cave continues at walking height for a while, but then the ceiling starts to descend.

Jonathan Beard had told me about aragonite brushes in the Lunch Room, so we continued further back. First hands and knees crawling was required and then belly crawling, but eventually the ceiling height rose to about 5 feet. We looked under the ledges of the Lunch Room and there we found the aragonite brushes. As Jonathan indicated, these are



Top: Flowstone in Berry Cave (photo by Mark Lankford). **Left:** A cave salamander in Berry Cave (photo by Conor Watkins). **Middle right:** Examples of signatures in the Table Room (photo by Conor Watkins). **Far right:** A slimy salamander in Berry Cave (photo by Conor Watkins).



Above: Aragonite brushes in Berry Cave (photo by Conor Watkins). **Left:** This breakdown rock nearly broke through this flowstone apron in Berry Cave (photo by Steve Potter).

very impressive formations. Some of the brushes were three inches long and pure white. Conor took some good photos of the brushes. Then we headed out.

Back at the entrance, Steve crawled into Berry Annex, which is a separate cave just to the left of Berry. The entrance was a belly-crawl through a small hole. I watched as he crawled into a passage that allowed him to stand up, but his report didn't sound promising. I let him investigate alone. After only a couple minutes in the cave, he headed back to the entrance.

Mill Creek Cave

After exiting Berry Cave, we had plenty of daylight remaining, so we headed for Mill Creek Cave in Phelps County. This is not a huge cave, but I had read cave reports that described its plentiful formations. It certainly sounded promising. So we parked at the trailhead and headed up to the cave. The trail is a little steep at first but it soon levels out.

Less than 50 feet from the entrance, the main passage is wall-to-wall water. At the edge of the water, I noticed several salamander larva. Some were black. Others had turned white and were clearly tiny grotto salamanders, with their gills still visible. Another larva was much longer than the rest. I'm not sure what it was. It had two legs up front and then a long worm like body. I instructed everyone to step on rocks to get beyond the twilight

area where the salamanders had congregated. Then we headed deeper into the cave.

Almost immediately the water was knee deep and then mid-thigh. Yikes. It nearly took my breath away. After encountering temperatures above 100 outside, I had shunned polypro long underwear. Now, I could feel the water sucking the heat out of my body. Wow. This was brutal. I took a couple minutes to inspect a side passage on the left that curls back around toward the entrance and joins the main passage, but the connection wasn't human enterable. This area is well decorated with many small columns about 3 feet high. No one followed me into this side passage, so I could tell people were getting tired.

We headed further back in the main passage until the passage apparently hit a dead end. The map showed a continuation up high on the right, atop a clay bank. Steve slid onto the bank, but this route would require very thin people. No way Steve could make it, let alone me. Meanwhile Conor and some of the others were trying the watery passage to the left. They came back complaining it was a wet suit passage. What? Not possible. I looked at the map again. The passage has to continue. I headed for it. Yes, it got very low, but I could see air above the water. The map showed a quick turn to the left and then the ceiling height increased to about four feet. I can do this. I crawled forward, sinking down into the water with my pack floating in front of me. Water sloshed back toward me and I got a mouth full. I squeezed through the small passage, with less than 12 inches of air above the water. I pulled myself through the constriction and onto a shelf of rock. The ceiling height was now indeed about four feet. Flowstone ran down the walls, which were only about three feet apart. I yelled it was okay for the others to follow me.

This passage is relatively small, averaging about three feet high and two feet wide. On only one occasion did the ceiling height rise enough that I could stand up. But throughout the passage, flowstone covered the walls and soda straws hung from the ceiling. This is a very nice little passage. We followed this passage for about 200 feet, until the passage size pinched. Steve was in the lead now and he said we were at the end of the cave. On the way back out of the passage, Mark tried to get pictures of people coming out of the water crawl, but steam in the air made it tough to get good photos.

Kaintuck Natural Tunnel

After exiting Mill Creek Cave, we still had at least 90 minutes of daylight, so while some people in our group were getting a little tired,

I didn't want to head to the campground yet. I asked Conor to lead the way to Kaintuck Natural Tunnel. He's well familiar with the area. So Conor led the way to the trailhead. The parking area isn't big. It only has room for maybe four vehicles. As the trail begins, it doesn't look real promising for caves, but after about a quarter mile, a small ridge suddenly materializes on the right. The trail curves to the right and heads toward the ridge. And then you see the large entrance. It looks like a cave. The tunnel isn't strictly linear. It's sort of like an S with the upper part of the letter stretched to the right. At the south entrance, the ceiling height is 12 to 15 feet and the mouth is over 20 feet wide. It looks like a good size cave, dry and inviting. The south entrance immediately opens into a fair-sized room, the edges of which contain many solution holes but none of them seem to lead anywhere. To the left, however, is some cave passage. At the point where the upper part of the S is stretched to the north, a side passage heads west. It's about three to four feet high and it goes for several dozen feet. Conor waved us off from investigating this passage. "There's not much to it," he said. At this point, you see the light at the back of the main passage, making it clear you're in a natural tunnel. Toward the north entrance, clay banks frame the passage on the left and right. The north entrance is smaller than the south entrance. It's only about 8 feet high and 15 feet wide. A small stream trickles to the entrance and then disappears down into rubble. Maybe during heavy rains, the stream flows into the natural tunnel. We spent a few minutes taking photos and then headed back to our vehicles.

Arlington River Resort

Not far from Kaintuck Hollow was our campground, Arlington River Resort. It's located on the Gasconade, by an old town called Arlington. Several weather-beaten buildings that have definitely seen better days sit at the entrance to the campground. These are authentic structures, not reconstructions. They date to the early 20th century, maybe into the late 19th. The campground is mostly used by RV owners. But there are several tent camping sites near the river. We chose sites with a thick tree canopy and set up camp. Soon afterwards a herd of goats arrived at the nearby fence and started bawling for handouts. I was about ready to say pack it up. Let's look for another campsite. But Mark had some experience with goats, and he said they'd quiet down once it got dark. And he was right. The goats weren't really a problem. Meanwhile I grabbed my swimming trunks and headed for the swim-



Top: Heading down the main passage of Mill Creek Cave (photo by Mark Lankford). **Middle:** Conor Watkins attempts a small crawlway in Mill Creek Cave (photo by Mark Lankford). **Above:** Conor Watkins crawling through a small but highly decorated passage in Mill Creek Cave (photo by Mark Lankford).

ming pool. They have a nice, large swimming pool here and few people were using it. For much of the time, I had the pool to myself. I couldn't convince any other cavers to go swimming. The water felt great. Not sure why the others didn't go swimming. Maybe I'd tired them out. Whatever the case, the cool water was the perfect antidote to 100 degree temperatures and a long day of physical exertion. The campground has a small campstore and two shower houses. Not a bad place.



Railroad Cave

IMPORTANT! Railroad Cave is on private property. Arrangements must be made in advance with the landowner in order to visit this cave.

Sunday morning we broke camp early and headed for our rendezvous point with Andy Free. He was waiting for us when we arrived. We shook hands and I did the introductions. Of course, he already knew Conor. I felt fairly confident the cave was nearby, just down the road that we had turned off on. Maybe, but that wasn't the entrance we were headed for. Andy took us on a circuitous route down into a hollow, up a draw, and up toward a ridgetop. At least a hundred feet in elevation below the top of the ridge, Andy pulled off to the right. We were there. I could see a hole at the base of a modest outcrop of dolomite. This was the north entrance. The cave pierces a ridge. The south entrance is owned by a different landowner.

I had tried to get access to Railroad Cave about three years ago. I had talked to a retired school teacher who used to lead scouts on trips here 20+ years ago. He gave me the name of the landowner of the south entrance. This landowner doesn't live on site. The landowner lived by Dixon, Missouri. Ever seen billboards along Missouri highways for walnut bowls? Well, the south entrance landowner provides many of the walnut trees for those bowls. He uses his land for logging. I had phoned and talked with him for a few minutes, but he was concerned about someone getting injured in the cave. He couldn't see any benefit from our presence. I'd offered trash pickup and graffiti removal. No, that didn't have value for him. I offered to provide liability waivers from all the participants. He suspected the waivers wouldn't be worth the paper they were printed on. So ... that didn't work out.

On the weekend before our visit, SPG had done some graffiti removal at Railroad Cave. Our trip was strictly recreational. I had read about the cave in J. Harlen Bretz's *Caves of Missouri*. He wrote at length about its large meanders, which could not have been cut by a stream nowadays. (There is no stream.)

The cave sits high on a ridge. About 1,800 feet of large passage separate the two entrances. Throughout much of this passage, meanders curve to the left and to the right, cutting deep into the bedrock. Bretz's point was simple: The current topography could not



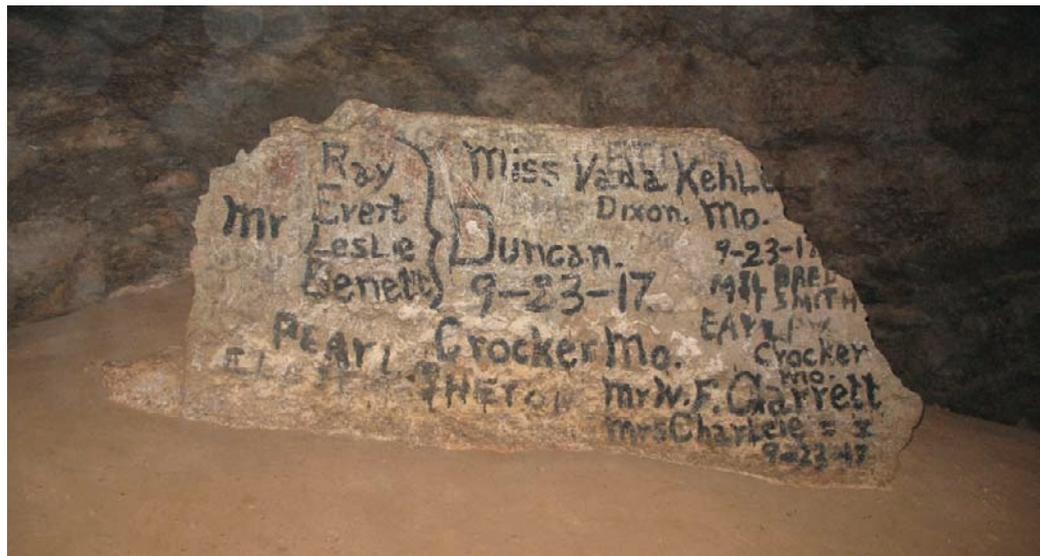
Top: The entrance of Mill Creek Cave (photo by Conor Watkins). **Middle:** The south entrance of Kaintuck Natural Tunnel (photo by Conor Watkins). **Middle:** The north entrance of Railroad Cave (photo by Gary Johnson).



be responsible for this cave. Rather the cave was formed under very different conditions, before the land was dissected by a network of streams and hollows, before the land was uplifted. This is an old cave, likely many millions of years old.

We suited up and Andy led us into the cave. The north entrance is relatively small in comparison to the passage just a few feet inside. The entrance is a duck under, about three feet high. The floor slopes down quickly, soon you're standing in a large passage, 20 feet high and 30 feet wide. This passage is almost totally dry. Some of the meanders dip into mud and pools. But you have to go looking for water in this cave.

I was mostly interested in checking out the meanders, so while Andy led the group forward through the main passage, I ducked into the meanders. Many of the meanders are quite large. They typically curl about 50 feet away from the main passage and then come right back, in broad sweeps. Meanders have been cut on two (even three) levels, which are intertwined in smooth contours that blend and separate. Some meanders lead to higher meanders that can be reached by climbing up 6-10 feet. The meanders exist on both the left and right, but they don't exist in the middle of the passage. It's as if a large force has cleaned out the center of the passage. I'm guessing that large force is simply the passing of many,



many cavers over the past decades. By climbing up and down the clay/silt banks framing the old cave stream, the cavers wore down evidence of the stream into a mass of footsteps and packed sediment. Nonetheless, this is still an impressive cave. At points, the ceiling height soars to 30 feet, maybe more, and the passage width, including the meanders, must exceed 100 feet in places (with the main passage representing about 30 feet of the distance).

About two-thirds of the way from the north entrance to the south entrance, a huge column rises from a breakdown pile. A wide apron of flowstone pours down over the silt and breakdown, some of this flowstone is pure white, some tan, some brown. The ceiling here is about 35 feet high, so the column is quite large and impressive. Tucked

back to the right of the column is a side passage lined with flowstone that leads to a pit. We walked up to the pit and peeked down: The drop was about 30 feet, and the dome pit was about 15 feet wide.

Three years ago, when I talked to the retired schoolteacher about this cave, he told me about standing at a pit in Railroad Cave when his headlamp had suddenly snapped off his head and plummeted into the pit. This must be the place. I wonder if there is an old headlamp down at the bottom somewhere?

Near the end of the main passage, only 100-200 feet from the south entrance, three columns serve as sentinels. This entrance was sucking in air. I could feel the warm air rush past me and past the columns. The air was much drier than typically encountered in caves. Maybe that's why these formations are

Top left: A column in Railroad Cave (photo by Andy Free). **Top right:** A trio of columns near the south entrance of Railroad Cave (photo by Andy Free). **Above right:** This rock stands like a tombstone marker in Railroad Cave (photo by Andy Free).



largely dry and suffering from advanced desiccation. The columns are still impressive, though. They're about 12 feet high and two to three feet wide.

I took a peek out the south entrance with Conor and Andy. We saw no road. Andy said the road was above us. The entrance was two feet high and six feet wide and surrounded by trees. This entrance emerges at another modest outcropping of bedrock. We then ducked back inside and retraced our steps back to our vehicles.

This was a very nice trip. Thank you very much, Andy, for taking the time to show us this cave.

Wrap Up

Overall this was a very good trip. Danny and Miranda couldn't join us for Railroad Cave on Sunday. They could only cave on Saturday. But it was fun to see Miranda go through the watercrawl at Mill Creek Cave. Now, she was caving. Strangely, part of her caving gear seemed to consist of pyjamas, if I'm not mistaken. Pyjamas? Well, as long as she's comfortable. Thanks go to Mark for doing the driving and allowing Steve and me to ride along. Thanks to Conor for bringing firewood and sharing his knowledge of geology.

After the trip, I reviewed all the photographs of Berry Cave and selected the ten best ones. Conor Watkins took some excellent closeup photos of aragonite brushes and salamanders. Mark Lankford took several excellent closeups of flowstone. Steve Potter took an excellent photo of a beautiful, white stalagmite. I had 8x10 glossies printed of these photos and mailed them to the Berry Cave landowner. ●

Top left: A huge column in Railroad Cave (photo by Conor Watkins). **Left:** Flowstone in Railroad Cave (photo by Conor Watkins).



A Work Trip to

Ozark National Scenic Riverways

trip report by Gary Johnson

*photos by Mark Lankford and
Dale Curtis*



On August 25 and 26, I led a trip to the three permit caves in Ozark National Scenic Riverways: Branson Cave, Bluff Cave, and Lost Man Cave.

Before the trip, I contacted Scott House for suggestions on ways to make this a constructive trip instead of merely a recreational one. He said, “Branson Cave needs some additional rocks along the trail. Just put some in your pack at the bottom of the hill (stream) and carry them into the cave. You will see where some more will go. I ask every group to do so and eventually we will have a nicely lined trail.” And regarding Lost Man Cave, he said, “Lost Man has been heavily vandalized. Take some scrub brushes, if you will, and go ahead and start cleaning. Take some photos while you are there.” We followed his suggestions.

I also talked to Jonathan Beard and found he had done some restoration in Bluff Cave. He (and other members of SPG) had restored 59 broken formations. He suggested we continue matching broken pieces. He had also been to Branson Cave, carrying rocks for the trail much as Scott had suggested. And while he had not yet been to Lost Man Cave, he had

talked to Mick Sutton about it. We discussed Jonathan’s recommendations for cleaning equipment. Subsequently, I dropped by a hardware store and purchased scrub brushes, sponges, spray bottles, scrapers, and a bucket.

The following notes describe our activities at Branson Cave, Bluff Cave, and Lost Man Cave. In addition, we took a side trip to visit Cave Hollow Cave and Keyhole Cave.

Powder Mill

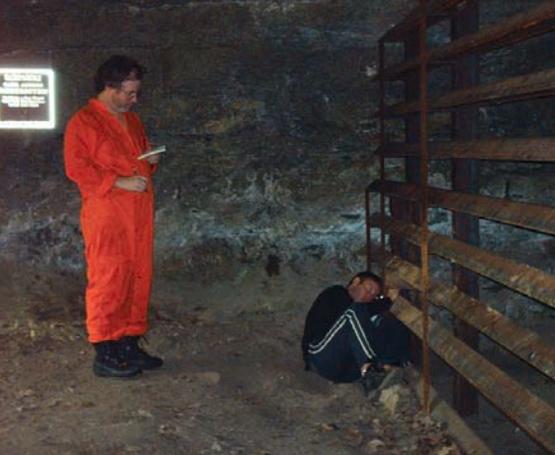
Our group met at the Powder Mill Research Center on Friday evening. The group included Mark Lankford, Steve Potter, Dale Curtis, J.P. Rey, Danny Stark, and Miranda Smith.

When ONSR came into existence, the National Park Service had great hopes for Powder Mill. They built a nice visitors center and interactive exhibits with actors in traditional garb making lye soap and performing other tasks. Unfortunately, the isolated location proved an effective deterrent to most visitors. Crowds never materialized. Eventually, the exhibits were discontinued and dismantled. Then the visitors center closed. Now the visitors center has been converted to a research

Above: A marbled salamander in Lost Man Cave (photo by Dale Curtis).

center. Cavers doing research or work in the ONSR have access to the facility. We used the research center’s bunkhouse. It has a large living room, two bedrooms (with two bunk beds in each, so it sleeps eight), a bathroom (with shower), a kitchen, and a dinette. Sweet. A very nice setup (with air conditioning).

I had initially planned for us to camp at Alley Spring campground on Friday and Big Spring on Saturday, but Scott suggested we use Powder Mill Research Center. Subsequently, he reserved this facility for us. We are much in Scott’s debt for making this recommendation because the research center worked out great. Instead of making do with a camp stove and a freeze-dried meal, I loaded up a cooler with fresh produce and meat. We had a big meal on Saturday night after a long, hard day of caving. Makes all the difference in the world. And the thick mattresses in the bunkhouse made getting a good night’s sleep very easy. I could get used to this.



Powder Mill is also the site of a famous ferry on the Current River that operated for many decades before the Hwy. 106 bridge was built. While I was doing research on the area, I talked with the gentleman, Leroy Lewis, who used to own the ferry that operated at Powder Mill. He used to live in the nice house (“adequate” he called it) across the river from the Powder Mill campground. Back in the ‘50s, he built a series of summer cabins near the Current River that he rented to vacationers. John Cantwell, one of Missouri’s finest cavers from the ‘50s and ‘60s, told me about staying at these cabins not long after they opened. The remains of some of these cabins might be buried in the weeds, but I didn’t go bush-whacking. Mr. Lewis’s house is now painted MDC/NPS/UPS brown. Not sure if the house is used much nowadays, although it still looks to be in fairly good shape. It’s on NPS land, as is the Owl’s Bend School, a handsome stone structure which is a little further down the same road on the west side of the river.

Mr. Lewis also said he’d frequently hear bobcats moaning, like babies crying, from the bluff across the river. Mr. Lewis also told me stories about Civil War soldiers mining salt-peter from a cave in the bluff. He said soldiers would chisel lead out of the rock near where Blair’s Creek runs into the Current River. This would give them the material they needed for bullets and gunpowder. Scott House says there is no evidence of mining operations at the cave, and he says stories of soldiers making bullets or gunpowder are fiction. There is no evidence. Jonathan Beard said the same thing. As did Jim Kaufmann. So I guess the odds are slim that Mr. Lewis’s story is anything more than a local legend.

Of course, the name “Powder Mill” suggests a connection with gunpowder, but Scott House doubts there ever was a mill at the nearby Powder Mill Spring.

Branson Cave

When we arrived at Powder Mill Research Center on Friday evening, we met a park ranger. I asked him about the trail to Branson

Cave, and he gave me some good tips for finding it.

On Saturday morning, we piled into Mark’s truck and Dale’s truck and headed for Branson Cave. We found the turnoff for the cave and headed onto a narrow dirt road. Within a half mile, the weeds had encroached so much that we abandoned one of our vehicles, Dale’s double-wide four-wheel-drive truck. We crowded into Mark’s truck (a regular-width pickup with an extended cab and four-wheel drive) for the remaining distance. For anyone trying to reach Branson Cave in the summer, you shouldn’t plan driving all the way to the trailhead if you value your vehicle’s paint job, particularly if your vehicle is any wider than a regular pickup truck.

As we neared the dead end of the right branch of the road, my GPS unit indicated we had just passed the cave, which was located up high in the bluff on the right. Then, we saw the trail. As the ranger (I forget his name) told us to do, we parked in a clearing and walked back 200 feet to the trail. The trail is fairly easy to see, even in August when the weeds are at their tallest and thickest.

About halfway up the hill, we started looking for rocks in the woods near the trail. There weren’t many rocks, but we nonetheless found enough to weigh down our backpacks.

This trail was built by the Civilian Conservation Corps (CCC), back in the days when this was part of the Missouri State Forest system instead of the National Park System. Apparently at some point, the park encouraged people to visit the cave. For further evidence, I looked at the cave entrance area. As Scott House told me, below the trail at the cave mouth is a bluff. Part of the bluff below the trail is a man-made retaining wall holding the trail in place. Without the wall, the entrance would slump off and require visitors to scramble alongside a steep bluff. The wall is nice work. Most people probably never notice it’s not part of the bluff, but if you lean over and look a little more closely, the arrangement of the stones that compose the wall becomes obvious.

The cave entrance sits high on the ridge, nearly 200 feet above the valley floor. The

Left: Gary Johnson reads the combination and J.P. Rey dials the numbers at Branson Cave (photo by Mark Lankford). **Middle:** Flowstone in Branson Cave (photo by Mark Lankford). **Above:** A slimy salamander clings to dry flowstone near the entrance of Branson Cave (photo by Mark Lankford).

entrance is about 40 feet wide and 12 feet high. The gate sits back about 10 feet from the drip line. This is a big, wide entrance that promises a big, wide main passage, and the promises aren’t idle. We opened the gate and stepped inside the cave. The main passage is indeed wide and tall, about 10 to 30 feet wide and from 8 to 20 feet high.

Scott had told me that this is one of the most biologically diverse caves in ONSR. Immediately, I saw a slimy salamander (about 4.5 inches long) on a large column within 50 feet of the entrance. And not long after, we started noticing salamander larvae in pools. I saw two grotto salamanders and at least six larvae. One grotto salamander was about 4 inches long the other was about 1.5 inches long. The latter still had gills.

Everywhere we looked, the floor was peppered with pellets of bat guano. Every six inches, a pellet marked the floor irregardless of whether the floor was dry, mud, or water. But we saw surprisingly few bats, eight flying and another two (of undetermined species) on the ceiling.

We carried our rocks to the end of the marked trail and dumped our backpacks. We arranged the rocks along the sides of the trail, creating about 100 feet of additional trail. I had tried to brush any organic material off the rocks that I picked up, but some material likely got into the cave on rocks carried by past visitors. This might explain the plant we saw in the main passage. It had sprouted several hundred feet inside the cave. Rather strange.

We continued down the main passage and encountered the side passage on the right that is used by bats. Here, the side passage was marked with small flags, but many of these flags had been trampled by previous visitors. Currently, it would be easy for someone who didn’t know what they were looking for to



miss the flags and walk up the side passage, possibly disturbing the bats. We were not carrying any flagging or any additional flags, so we couldn't remedy this situation.

A little further down the main passage on the right is another side passage. This side passage is marked with stones—not particularly intuitive. I actually walked past the stones, and I was looking for a marker to stop me. I knew I wasn't supposed to enter the side passage. But the stones had been trampled over many times and were muddy.

While pools parallel the trail in the main passage for the first 800 plus feet of trail, the last part of the cave is dry. From here on, we didn't see any additional life in the cave.

The cave contains quite a few formations, but virtually all of the formations are broken and blackened. Is the grayish/black color from manganese? Or is the discoloration a result of campfires set in the cave? I'm afraid it's probably the latter. The breakage is almost certainly the result of willful actions by past visitors, either looking for a souvenir or just practicing vandalism. Until the cave was gated about three years ago, it was wide open to all visitors.

After we retraced our steps back to the entrance, I realized we hadn't seen any cave salamanders. What? No cave salamanders? Not possible. So as I approached the entrance, I started looking along the little niches in the walls. Quickly, I found three cave salamanders. I knew they had to be there, somewhere. And then we started seeing cave crickets. First, one, then another, and another, and another. Until we had at least 14 cave crickets (big fat ones) all within 30 feet of the gate. We also found a bird's nest (now empty), made of mud and nestled into a little cavity in the ceiling. And lastly we found a pack rat nest of cedar branches in a wall cavity.

Altogether we spent about an hour and a quarter in the cave.

Cave Hollow Cave

I'd visited Cave Hollow Cave once before. I remembered spending some time searching for the cave, but I forgot one important fact: the cave symbol on the USGS topo map was misplaced. It was about 250 feet off. And if you look at the topo map after having visited the cave, you'll instantly see it's misplaced. The cave is in a little draw on the side of a hollow; however, the topo map places the cave far to the west of the draw. But I had forgotten all about this.

After we parked on the ridge above and started bushwhacking into the hollow, we were headed for the waypoint I'd created from the topo map. The first part of the hill heading down to the cave isn't too bad. The brush isn't very thick. But about the halfway point, the brush begins to get thicker and then ... yikes. It's so thick that every step forward is a challenge. Briars ripped at my clothes and hands. I had to constantly climb over fallen branches. Frequently, the downed branches became so thick I had to look for an alternative path.

Keeping an eye on my GPS unit, I shouted out the distance figures as we gradually closed in on the waypoint. Around 100 feet from the target, the brush became so thick that it was hard to make progress. I struggled forward, but it was sort of like a record needle getting stuck in a groove, with the GPS unit showing 95 feet ... 102 feet ... 93 feet ... 95 feet ... etc. Finally, I found a way around the thick brush, and I closed in on the target. As I did, it became increasingly clear that something was wrong. I was still in thick undergrowth.

I clearly remembered a trail heading up the hollow at stream level. So I abandoned the waypoint and headed instead for the bottom of the hollow. If I could find the trail, I'd find the cave. What I found was not just one trail, but at least three, with a dry stream bed intertwined with the trails. Which was the right trail? I remembered it being at the base of a bluff, but I wasn't seeing a bluff here. If I could find the bluff, I could follow the bluff

Left: A cave salamander in Branson Cave (photo by Mark Lankford). **Middle:** Most formations are grey and broken in Branson Cave (photo by Dale Curtis). **Above:** Mark Lankford inspecting the formations in Branson Cave (photo by Dale Curtis).

to Keyhole Cave. It was easy to find. A big entrance at the base of a bluff. I remembered it being easily visible from the trail.

Suddenly the trail emerged into a little clearing. Might be a camping area. Then a modest bluff rose 15 to 20 feet. This was it. I ran up a slope to the bluff and followed the trail. Yes, this was it. Not exactly as I remembered but this had to be the place.

I remembered being able to see the cave clearly from 50 feet away. Now, the weeds were thick and tall, obstructing the view. But there was the entrance of Keyhole Cave, and if this was Keyhole Cave, I felt confident I could find Cave Hollow Cave. It was just a matter of heading up the hollow on the trail that hugged the north side of the hollow.

Steve stayed at Keyhole Cave while I went looking for everyone else. "J.P.! Miranda! Danny!" I yelled. I got a reply and walked toward them. They weren't too far away, but the brush was so thick you could only see a few feet. I directed them to Keyhole Cave and then went looking for Dale and Mark. I yelled again and got their reply. They were close by. I enlisted their help to follow the trail and find Cave Hollow Cave. But following the trail wasn't that easy. Wait, I'm in the creek bed, not the trail. Where'd the trail go?

I bushwhacked and ran into another trail. This must be it. The trail stayed close to the low bluff, and then the trail curved around the bluff and into a draw. Instead of staying at the bottom of the hollow, the trail now headed up hill. This seemed right. I had a dim feeling of recognition. I followed the trail up, but it kept going up and up. I remembered the trail leading right to the cave. But I thought the cave was only 20 or 30 feet above the bottom of the hollow. I was much higher than that now. But this had to be it. Dale was ready to



Top left: A small pool in Cave Hollow Cave (photo by Mark Lankford). **Above:** Formations are thick in the entrance passage of Cave Hollow Cave (photo by Mark Lankford). **Left:** Miranda Smith crawling out of Cave Hollow Cave (photo by Mark Lankford).

bail on me. He stopped. All the bushwhacking had sapped his energy. But this had to be it.

I ran up the trail as it continued to rise, now at a fairly steep incline, and then, there it was. The entrance doesn't look like much. Just a little crawlway, maybe 18 inches high and three feet wide. The small entrance belies the large passage awaiting just inside.

So now I knew where the cave was at. And suddenly I remembered the last time I was here, when we had discovered the cave symbol on the topo map was misplaced—but I'd forgotten all about this. Oh, well. Ain't it funny how memory works?

Now, who wants to go see Keyhole Cave? That meant going down the hill again. Hmm, Dale wasn't so sure. Maybe he'd just stay where he was at. No, he followed me, and we soon found Steve, J.P., Danny, and Miranda. They were wrapping up a trip at Keyhole and heading back out. I knew the cool temperature inside was going to feel mighty good. I was soaked in sweat. Dale and I headed in, while Mark waited at the entrance.

This is not a big cave, only about 220 feet of passage, but it's fairly well decorated, and the cave is used by lots of fauna. My main mission at this point was just cooling off. So I crawled deep into the cave. As I neared the end of the main passage, I pulled out the map.

It showed two feet of water. I was looking at maybe four inches. The cave map seemed to end in a watery crawl with three-foot-high columns in the middle of the passage. I saw the columns, but the water level was so low I thought I needed to confirm that the passage did in fact end as the map said. For all I knew, more cave could now be reached. I crawled past the columns. The water felt great. Normally, I'm not real crazy about bellycrawls in water but this one was quite pleasant. The ceiling dropped lower and lower and eventually met the water. There was no more passage. This was indeed the end.

On the way back out of the cave, I had the option to squeeze through a tight constriction on the left or crawl on my belly through a puddle. Hmm, I decided on the crawl. The cool water made the decision easy. By the time I was back at the entrance of the cave, I was feeling refreshed. Mark had been taking pictures. He pointed out a walking stick about 50 feet inside the dripline. A very unusual cave critter. And then on the left wall (facing the entrance from inside) we saw two cave salamanders. They were both discolored as if they had a genetic pigmentation gene mutation. Instead of being all orange with brown dots, they had patchy orange that alternated with pink and brown. Very strange. Very similar to

the picture of a cave salamander that recently appeared on the cover of *NSS News*. That photo caption said the photo was taken in the Ozarks. Could it have been taken at this very same cave?

Next, I led the way to Cave Hollow Cave and somehow managed to almost immediately get off the main trail. This area is a little tricky in late summer when the weeds are at their tallest. But eventually we worked our way back to the right trail and up the steep path to the cave entrance. I slid down into the entrance.

Immediately, the passage height increases and you can stand up. It remains like this for much of the cave. The first 200 feet of passage is highly decorated. In contrast to the breakage we had seen earlier that morning at Branson Cave, soda straws filled the ceiling. There was still plenty of breakage here, primarily to the larger formations, but there were plenty of surprises as well. Also unlike Branson, where the formations were grey and black, here the formations are orange and tan. Most of the formations are on top of a high shelf of clay on the left. The cave stream has carved a lower route on the right.

I stayed on the shelf as long as I could, crawling through the formations, which are so thick they almost choke off the path. Here on top of the clay fill, the ceiling varies from as

little as three feet high to as much as eight feet. Columns, stalagmites, and soda straws fill much of the space. So this space requires visitors take their time and move carefully. After the formations thin out, the clay ledge comes to an end. It drops away as the stream cuts across the main passage. At this point the main passage curls to the left. Straight ahead, the floor slants up and meets the ceiling. Did the main passage ever continue in this direction? It sure looks like it. Although the end of the passage isn't breakdown. It's clay and silt.

The stream passage enters from the left about 50 feet before the main passage terminates. And the stream passage is a tall canyon. At first it's 20 feet tall and 10 feet wide. This is a sporty passage. The stream meanders back and forth, leaving tall banks that typically must be climbed over. At times, it's easier to just crawl in the stream. At other times, you must climb up 10 feet or higher. You frequently have a choice of staying high or climbing back down. With some chimneying, you can frequently stay high, but occasionally you have no choice but to climb back down.

The cave seems much longer than it really is because progress is relatively slow. You must climb up the banks, and bellycrawl over the top, only to drop back down into the canyon again. Repeat those steps about 20 times. Near the end of the canyon/stream passage another area of formations appears on the right, with some nice columns, stalagmites, and soda straws. This is a fascinating cave, with about 1,200 feet of passage altogether.

We bushwhacked our way back up the hill. Even though I didn't have a GPS waypoint for where we parked our vehicles, we walked right to the vehicles.

Bluff Cave

We parked near Bluff Cave in the late afternoon. As we walked past the high weeds that frame the trail, I saw occasional breaks in the weeds that allowed us to see the bluff, and on several occasions I swore I was looking at a big cave entrance, faintly visible through the branches and leaves. The trail finally turned to the left and headed toward the bluff. This was it. Now we were definitely headed toward the caves, Bluff Cave and Little Bluff Cave. But what were those dark spots I'd seen on the bluff earlier? Just little dips in the bluff? Shelter caves? Maybe nothing? I'm sure the bluff has been well examined.

Until a decade or less ago, Bluff Cave was open to all visitors. Then Jim Kaufman (then of MDC) built a gate. The gate was probably overdue, as evidenced by the destruction on display inside the cave. We were here to match up broken formations. Jonathan Beard had



Above: Dale Curtis and Gary Johnson matching broken formations in Bluff Cave (photo by Mark Lankford).

already been here twice on restoration trips to piece together some of the many broken formations. He described the breakage as vandalism and told me about a case at Fischer Cave where they found broken formation pieces up high, on ledges where they couldn't possibly have landed naturally. The fragments had been thrown, by vandals hoping to break formations out of their reach. Jonathan suggested we'd find the same thing at Bluff Cave.

We trudged past the entrance to Little Bluff and up the steep break in the bluff that leads to the entrance of Bluff Cave. Everyone was a little tired by this time. It was late afternoon, and we had already spent several hours caving. I wasn't sure how much work I'd get out of the group, but I figured they were good for at least two hours, maybe three. After that I might get a mutiny.

The entrance of Bluff Cave is big and wide, about 40 feet across and 12 feet high. The gate sits about 10 feet back from the dripline. A large block occupies the middle of the main passage. The gate is on the left. A few bars protect a crawlway on the right of the block. We opened the gate and stoopwalked in. Soon we were crawling. We waited in the low, wide room just beyond the entrance until everyone was in and the gate was again locked.

Before we went any deeper in the cave, I reiterated the importance of being careful in this cave: Jonathan Beard had restored many formations and the last thing I wanted was for someone to damage a formation that he had repaired. Everyone got the message. The next part of the cave is a bellycrawl, maybe 18

inches high. A fairly easy bellycrawl, lots of room to move around horizontally.

Immediately after the crawl, I found myself in a wide area with many soda straws and a forest of columns and stalagmites on the right. Many broken fragments littered the floor. Is this where Jonathan was restoring formations? The ceiling was three to four feet high. In places where there were no soda straws, I could stoopwalk. Where there were soda straws, I had to crawl on my belly, alternating with some hands-and-knees crawling, to stay a safe distance below the formations. While waiting for the others to make it through the 18-inch-high bellycrawl, I crawled/stoopwalked around the perimeter of the thick forest of formations. Well, at one time it was thick. It has been thinned out considerably. On the far side, several feet beyond where the formations ended, I found a thick section of a column, maybe three inches thick and 18 inches long. What was it doing here? It wouldn't have fallen here. Is this an example of a formation that had been thrown? Had someone grabbed the column fragment and thrown it through the other columns, soda straws, and stalagmites? That conclusion seems very likely.

I grabbed the column fragment and crawled back to the front side of the formation forest. I told the group this looked like a good spot to spend some time matching broken formations, holding the broken column forth as an



example of what we faced. Everyone went to work.

Fairly soon we started finding some matches. I breathed a sigh of relief: At the very least, we'd have a few success stories. Everyone found matches. I grabbed flagging tape and a pen and began marking the pieces so that Jonathan Beard could one day restore the formations. Steve Potter found where my column fragment belonged. It was part of a column that had most likely broken because of the clay fill shifting. Once he set the piece in place (it was a perfect fit on the base), we saw where it continued to the column stub on the ceiling, but now the pieces were offset by three or four inches. So the column most likely shifted and broke on its own, but that doesn't explain where I found the piece. The true original location of the column was on the front side of the formation forest, not the back. So almost certainly, this fragment had been thrown with the inescapable purpose of destroying formations, by vandals who took aim as if the formations were milk bottles at a carnival midway attraction. I imagined the broken column spinning horizontally, ripping out soda straws, snapping columns into fragments. That is likely what happened here. Did the perpetrators laugh, congratulating each other on good throws? "That was a good one!"—while fragments showered to the floor.



A note on the cave map: to the left of the area that we were working on, I found a hole in the floor. It dropped down about 10 feet. I carefully crawled over the top of the hole and pulled out the map. There is no hole indicated on the map. Maybe it's just a dead end that leads nowhere. I don't know. I didn't check it out further. But it's strange it was totally left off the map.

We continued matching pieces and had at least a dozen good matches. A fairly paltry total compared to the dozens that Jonathan Beard had already restored, but I hope this work is helpful to his future restoration trips. Leaving several flagged formation fragments behind, we headed deeper into the cave.

At the NSS 2007 Convention in Indiana, I had talked to Scott House about Bluff Cave's 50 foot domepit and the tight crawlway that leads to it. He just laughed. "You'll never get there. I can't get there," he said. But the passage didn't look that bad on the map. I'd have to check this out for myself. Just beyond the area we were working on, we stood up in a small room, maybe 10 feet across. Here broken formations were arranged in rows, waiting to be matched. This must be the place where Jonathan Beard was working. Yes, now I could see formations with cement holding them together. This was an easier place to work than where we were at. You could actually stand up



straight here. This was no doubt a very impressive room at one time, with many formations two to three inches thick. But they had been horribly vandalized. Jonathan's work was helping to restore some of the grandeur to the room. We slipped past this room into the continuing passage, which was stoopwalking height. I knew we were looking for a passage that was only about a foot high. The others had passed it. I dropped on my knee and looked into a small side passage. Bingo. I waved everyone back and then crawled in. Immediately, the ceiling height increased to about three feet, an easy hands-and-knees crawl. But then I came to a pool and ... uh, oh. Here was the constriction. Yikes. The map indicated a 1-foot-high constriction, but this was a lot less than 12 inches. I suppose they must have rounded up.

I crawled forward. Beyond the pool, the floor curves up, almost to the ceiling, leaving a gap of about 8 inches. (I didn't measure it.) The constriction was also narrow, maybe a little over a foot wide. Maybe 12 to 14 inches. I got my left arm through, but my shoulders seemed too wide. I couldn't get both an arm AND my head through. I backed out and called for J.P. He is small and a strong crawler. Plus, he's a good crawler. If anyone could get through it was him. He crawled forward, slipped his right arm through, then this head, then his chest. Once through, he called back, saying there was a pool on the other side full of salamander larvae. He started counting, 9, 10, 11, 12.

I decided to give the constriction another try. I tried the right arm first like J.P. It worked. I got my right arm through and my head and then ... ooof! My chest filled the small cavity, stopping me solid. I have about a 43 or 44 inch chest. And that's about the limit for getting through here. Maybe I could've squeezed my chest through somehow, by exhaling all the air from my lungs, but my chest isn't my biggest dimension. My hips are about 45, and the hip dimension is much more rigid. There was no way I was going to make it through here. So Scott House was right. Oh, well.

I backed out. Miranda slipped right through without much of a problem. Danny followed. He didn't seem to be enjoying this very much, but he followed J.P. and Miranda. And then Steve gave it a try. He made it. I wanted some

Top: Jonathan Beard has restored many formations in this area of Bluff Cave (photo by Mark Lankford). **Middle:** J.P. Rey squeezing through a constriction at Bluff Cave (photo by Gary Johnson). **Left:** The group matched several broken formations in this area of Bluff Cave (photo by Mark Lankford).

photos of the pit. The map showed several large formations at the lip. So Mark offered his camera. Mark showed me how to operate it and I crawled into the constriction far enough to hand the camera to J.P. I gave him a quick lesson on which buttons to push. He snapped a photo of me. And then they continued to the dome pit.

The map shows additional passage leading out of the pit for several hundred feet and another passage up high where water comes in for the waterfall. But the cave permit forbids descending the pit. So all you can do is walk up to the lip and take a peek. That's what J.P., Danny, Miranda, and Steve did. They got a few photos at the lip, with the formations in the background on the left, and the void of the pit on the right. They weren't gone long. After about five minutes they were crawling back through the constriction.

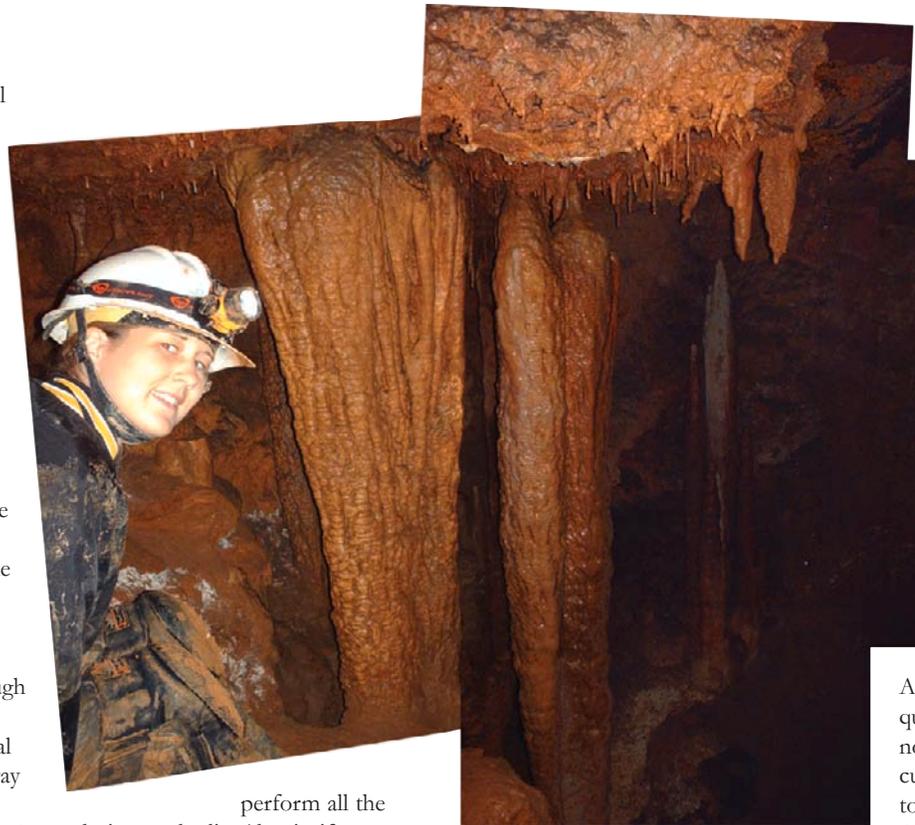
And that was it. We encountered several bats in Bluff Cave. I counted three lone gray bats, two little brown bats, and several pipistrelles. Near the entrance, there is a dead bat (possibly a gray) still hanging from the ceiling, his wings outstretched sort of like a Halloween decoration.

After leaving Bluff Cave, I took a quick look at Little Bluff Cave. Steve and J.P. followed me. The entrance seems to end in a collapse, but to the left is a crawlway, an old phreatic tube that heads downhill at a shallow angle. I crawled down the tube. The map was a little generous. It promised five feet for the ceiling height. Not sure we even got four feet. This cave is pretty much all crawling. Soon I was on my belly. There are numerous soda straws and columns to be negotiated. So I just stayed on my stomach. The main passage ultimately twists back to the left and heads under Bluff Cave. The map showed flowstone that might actually be shared by both caves, but there is no human-enterable connection between the cave. I crawled forward on my belly until I found the flowstone in question. It was much less impressive than I had imagined. We headed out. This cave is no doubt used by lots of critters, such as pack rats. But we were running late. It was already dusk. People were tired and hungry, so I didn't spend any further time monitoring this cave.

Back at Powder Mill bunkhouse, we had a big meal, and then everyone got a good night's sleep.

Lost Man Cave

On Sunday morning, we spent an hour cleaning up the bunkhouse. Clean up is required for everyone who uses the facility. There is a checklist and you're expected to



perform all the duties on the list (that is, if you want to ever use the facility again). With a full crew, the cleanup goes quickly. We packed and hit the road for Lost Man Cave.

This cave is located close to a small town. Its proximity has no doubt made it a destination for locals with time to burn. As a result, the cave is much too easy a target for trash and graffiti. I'd heard the situation here was bad, so I had imagined the worst: piles of waist-deep garbage and graffiti on top of graffiti that covered every inch of the walls. So when I finally entered the cave, I discovered the trash situation wasn't nearly as bad as the images in my mind. Not to say it was good. It wasn't. But the conditions we encountered can be remedied. The situation is definitely not hopeless.

The road to the cave runs past pasture land. I was concerned we might run into another weed-choked road, as we had on the way to Branson the day before. But when we turned onto the access road, we found a wide, well-graded road. We continued as the road entered NPS land. Then I was looking for a fork in the road. The fork appeared, yes, but the right road was old and overgrown. I waved for Mark, who was driving, to continue on the left, and sure enough a cutoff road of much more recent vintage appeared on the right, at an area that looked like it is probably used by hunters (and probably by partying high school students). A roughly triangular area was between the main road and the cutoff.

Dale wasn't anxious to drive his double-wide pickup into a narrow weed-choked path again, as he had on the Branson Cave trip.

And he quickly noticed the cutoff road to the right did indeed

become fairly narrow. So we parked here and everyone again crowded into the cozy confines of Mark's truck for the final .3 miles to the trailhead parking. The final stretch of road got muddy in places, but Marks' truck had no problem with it. Soon we pulled up to a parking area with an obvious trail heading over a lip and into the woods. I ran to the trail to make sure we were at the right place and followed it for a couple hundred feet. It headed directly toward the GPS waypoint for the cave entrance. So I concluded this must be right and returned to the truck without having actually spotted the cave entrance. But I had no doubt this was right.

We geared up and headed down the trail. This is a pleasant little hike through the woods. There is very little undergrowth here. It's a pleasant glade-like hillside with a thin canopy of tree branches. Soon I encountered the wrought iron cage that surrounds the entrance of Lost Man Cave. This isn't like the heavy cages of Jim Kaufman design. It's somewhat light, even a little vulnerable looking. It's no wonder the gate has been frequently breached. Even the lock box is exposed. Someone with a set of loppers or bolt cutters could snip the lock off the gate.

After dialing the combination and opening the lock, we followed Scott House's advice by tying the rope directly to the cage and throwing it (the rope, not the cage) down the entrance slot. Steve was first down while I tied

Above: Miranda Smith at the edge of the 50 foot dome pit in Bluff Cave (photo by J.P. Rey).



the clean-up equipment bucket to another rope so it could be lowered into the cave.

Through the gate, you drop five feet and then squeeze between two rocks. This leaves you at the top of a slick rock. You can either just slide down the rock (only five feet but potentially dangerous because you land at the top of a steep slope) or slip to the left (hard to see on the way down but obvious on the way up). Having a rope erases any chance for a problem here. This puts you at the top of a steep slope with a ledge to the right. If you have any equipment, it can be lowered from the cage to the ledge. The steep slope heads down 20 feet to the lip of a drop into a big room. The drop is only six feet. A rock (it might be a broken formation) is slanted against the lip. But it only has one place for a foothold and is not much use on the way down. You'll probably just slide down to the floor.

I slid down the slot, grabbed the bucket, headed to the lip, and slid down into the big room. Altogether from the forest floor at the gate to the floor of the big room at the bottom was about a 30-foot drop. The permit requires all visitors to use a handline and recommends a belay, but a belay would be complete overkill here. For the way out, I was glad the rope was available. It made the climb up the lip easy. Without a rope, I would've struggled getting out. But that's the only place I might've needed any help.

Once in the Big Room, I immediately saw graffiti on the right wall. This cave is largely joint determined. It heads straight ahead, in the same direction opposite the entrance slot.

Here is where we would spend most of our time in this cave. There were several names written across breakdown blocks and on the right wall.

Almost immediately, Mark pointed out a salamander near the base of the entrance slot. I initially thought it was a ringed salamander and identified it as such. But later I sent photos to Mick Sutton and Jonathan Beard and we came to the conclusion that it was a marbled salamander. Very rarely encountered in caves. According to Mick, there is only one other instance of a marbled salamander being reported in a Missouri cave, and that report was from 1980 in ... guess which cave? That's right. Lost Man Cave. The salamander's movements seemed a little labored. It was likely an accidental cave inhabitant. Maybe it was now in a less-than-chipper state of health. But I hadn't seen these salamanders before and can't really say anything about what their movements normally look like. This one, though, used movements that seemed a little jerky. Maybe that's normal. But it didn't look right. Maybe he was just tensed up because he wasn't happy at our presence.

I passed out trash bags and three members of our group (Mark, Steve, and Danny) spread out to search for trash. Soon they had beer cans, soda cans, soda bottles, broken bottles, syringes, and other assorted trash. Altogether we had about one full trash bag full of refuse.

Dale and I worked on the graffiti on the right side of the room while Miranda and J.P. worked on the graffiti to the left. Most of the graffiti spelled names and dates. Whoever



Top left: Miranda Smith prepares to descend into Lost Man Cave (photo by Mark Lankford). **Above:** Before-and-after examples of graffiti clean up in Lost Man Cave (photo by Mark Lankford).

“Stacy” is should be shot. He/she wrote his/her name in at least three places, in large letters. Much of the graffiti was written to the right at the bottom of the entrance drop. This wall is still in the twilight area. The rock here is covered with a thin layer of mud and moss. Technically, it might not be moss. But that's the extent of my ability to put a name on the thin layer of organic, greenish material growing on the mud. Most of the graffiti (spray paint) was actually written on this greenish material. So the graffiti could be brushed away, but in doing so, the result was a brown gash in the moss/algae. We thought this was preferable to the graffiti. The moss can grow back.

I quickly learned that if I scrubbed too hard I'd reveal the rock underneath. In areas where rock was exposed, I tried to restore some of the mud covering by smearing mud from my brush. I got mixed results. We tried to soften the brush strokes by dabbing the areas with sponges. We removed most of the worst graffiti. But there is still plenty more graffiti awaiting future restoration crews, including some a little deeper in the cave, on a rock at the bottom of the cave's big, central pit.

Dale and Mark took some good before-and-after photos of the graffiti and the clean-up work. Then we decided to take a quick look at a little more of the cave. I led the way toward the central pit, passing the remnant of a wide spire of rock. Not far beyond the spire, the floor of the cave suddenly drops out. It's sort of ominous and reminded me of the dig site in *2001: A Space Odyssey*. When you walk up to the edge, it's a 20 foot drop, straight down, no free climbing. The pit is roughly rectangular, about 20 feet by 40 feet. You bypass the pit by crawling on a wide ledge to the right. When you get to the far side of the pit, you can easily free climb to the bottom of the pit. If you go to this cave, bring brushes: There is some particularly annoying graffiti on a large monolithic rock in the middle of the pit. Again, it's sort of like *2001*, without the buzzing. And there is also graffiti on a rock at the top of the climb down into the pit. (We'd left our brushes back at the base of the entrance slot.)

At the bottom of the pit is a clear pool, 10 feet across, several inches deep. We saw an adult grotto salamander and several larvae here. If you are doing restoration work here and need clear water for sprayers, this might be your best bet, but I'm not sure if it's a good idea to take water and risk disturbing the salamanders.

It's hard to tell from the cave maps, but there is a crawlway leading out of the bottom of the pit. It hooks under some large break-down blocks into the Formation Passage, which is very cool. Lots of white flowstone/rimstone dams on the floor of the stream passage. Most of the dams are holding water, but a few are dry. Some of the white flowstone has traces of red clay footprints that could easily be scrubbed off. This is a very, very cool passage. I led the way into this passage as far as I felt comfortable, to the point that walking/crawling over white rimstone dams would be required. Then I turned our group around.

By this point, most of the group seemed like they were ready to hurry up and get out of the cave. Maybe it was the long drive home awaiting us. I found the rest of the group was making a beeline for the entrance. However, I wanted to check out the rest of the joint-determined passage. It rose on the far side of the pit, up a steep incline. I went all the way to the top while Dale waited below. Very impressive passage size, with a high ceiling that might hit 40 feet in places. I climbed up maybe 80 feet to the end of the passage. When I turned around, I found a pretty impressive vista down toward the pit.

Hard to see bats here, though. The ceiling is so far away. This wasn't like Branson Cave where we saw pellets of bat guano everywhere.

We didn't see any bats flying around, and we saw none on the ceiling. Maybe they're there somewhere, but I didn't see them.

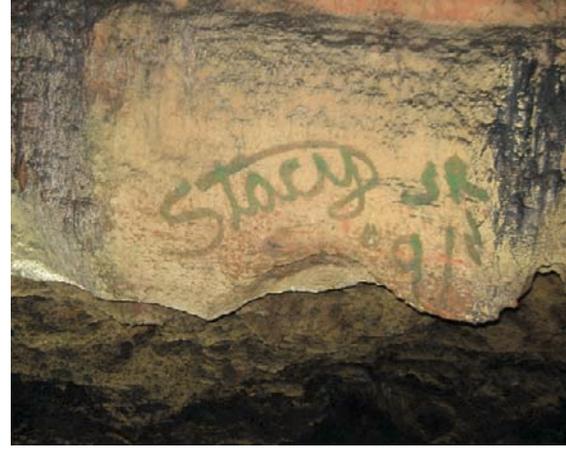
I rejoined Dale at the pit and we walked back to the entrance slot. Everyone was ready to leave. I said I wanted to check out the other big walking passage. "Walking passage" was the key term. "Well, if it's walking passage, yeah" became the refrain.

Back at the bottom of the entrance slope, we headed to the right. (That's left if you've just come down the entrance slot.) We found a large passage that continued for a few hundred feet before suddenly ending in a collapse. This passage has several large stalagmites/columns. In every case, these formations are covered with muddy hand prints. In addition, the lower half of the passage is encrusted with popcorn. However, people have walked all over this popcorn. To be honest, it's impossible to visit this passage without walking all over popcorn. Ideally, a trail could be marked up this passage and the popcorn could be sprayed clean. Not sure that'll ever happen. But that would be ideal. There are remnants of more large, wide rimstone dams up this direction, but they've been walked over and are now encrusted with mud.

There is another side passage up here that leads to an area with more formations, but that would mean some crawling and I knew the group wasn't ready for that. So that part of the cave will have to wait for another trip. We called it a wrap, picked up our trash bags and cleaning equipment, and headed back up the entrance slot.

Wrap Up

Overall, this was a very good trip. Staying at Powder Mill Research Center worked great. It certainly made the trip easier. Less gear to pack. Less gear to tear down. I hope to lead more trips to ONSR in the future, and I'm sure I'll return to Powder Mill. ●



Top and middle: Before-and-after photos of graffiti clean up in Lost Man Cave (photos by Dale Curtis). **Above:** Flowstone in the Formation Passage (photo by Dale Curtis).

Restoration at Onyx Cave

trip report by Gary Johnson

photos by Tandi Edelman,
Jonathan Beard, Rodney Raber,
Richard Raber, and Gary Johnson



In May 2007, the MSS held its quarterly meeting in conjunction with a work weekend. Numerous surveying trips were planned, as well as a restoration trip into Onyx Cave. Jim Cooley had agreed to serve as the KCAG representation at the MSS meeting. In the past, I had difficulty justifying making a trip to Rolla just for the MSS meeting. But if I could also do some project caving, that's a different matter entirely. So I rode down with Jim to the get together site—Onyx Cave—on Friday evening.

This cave has a fascinating history. It was long known by Indians, who used the cave for many centuries. It's easy to see why the cave was so attractive for Indians: it has a large entrance room that is dry, except for a small stream that bisects the room. Indians likely lived here for weeks, even months.

Back in the 1890s, a mining operator purchased rights to the cave and dug a wide shaft through approximately 130 feet of bedrock and into the cave system. Through this shaft, they lowered drills and other mining equipment, which they used to chisel out huge blocks of calcite. The effect of their

Top: A heavy gate surrounds the shaft entrance to Onyx Cave (photo by Rodney Raber). **Middle left:** The visitors center is now boarded up at Onyx Cave (photo by Gary Johnson). **Middle right:** Parallel gouges from a drill bit mark this block of calcite sitting on the surface at Onyx Cave (photo by Gary Johnson). **Left:** Jonathan Beard talks to Rodney Raber, Gary Johnson, and Lorin O'Daniell (photo by Richard Raber).



work is still apparent at the base of the shaft, where along the wall, you can see the marks of drill bits. One block of calcite, approximately 4'x4'x5' has been drilled out on three sides, but the work was never completed and the block remains as is. Several blocks were hauled out; however, was any of this “onyx” ever used as intended in construction? Maybe not. On the surface, near the shaft, are several large blocks, highly weathered but recognizable as blocks of calcite drilled out of the cave. Maybe the mining operation was a failure. Maybe none of the “onyx” blocks left the site.

Nearby, a cage now covers the shaft at the surface and wards off uninvited visitors. Made from angle iron, it's heavy and durable and should last many decades. The shaft is less than totally stable. The sides are crumbling and represent a potential threat to any visitors who pass at the bottom of the shaft. Unfortunately, the route to the main passage, goes directly below the shaft, so the NFS has requested for safety reasons that no one stop to look up from the bottom of the shaft. A falling rock could conceivably result in a fatality.

After the onyx mining operations shut down, the cave returned to a wild state for over 80 years. During this time, cavers visited the cave and mapped its passages. This situation changed in 1990, when Onyx Cave was opened as a commercial cave and renamed Onyx Mountain Caverns. This small, mom-and-pop style show cave operation was an anachronism, a throwback to the 1950s when



many show caves were family run. To develop trails, the landowner blasted out large chunks of formations at the back of the main room. Here, a formation choke had almost closed off the passage. For many years, cavers squeezed through small gaps in the formations to reach the lengthy main passage that lies beyond the formation choke. But this arrangement wouldn't work for a show cave, which requires more headroom and wider trails. So a large swath was blasted into the formations, to within 100 feet of the mining shaft. The blasting likely contributed to the generally fractured appearance of many of the speleothems in this area. None of the speleothems are pristine. They're all broken

Top left: A hole in the fence beside the visitors center gives passage to the concrete trail that leads down the hill to Onyx Cave (photo by Gary Johnson). **Above left:** The gate at Onyx Cave (photo by Gary Johnson). **Above:** The entrance of Onyx Cave (photo by Richard Raber).

or chipped or otherwise bearing battle scars. To be fair, though, some of this breakage was also likely the result of cavers crawling past these formations for several decades before the blasting ever took place.

After the landowner died in 2003, his wife tried to continue the commercial operation, but she eventually decided to sell the property. The National Forest Service purchased



the property, and since then the MSS has worked to restore the cave to its natural state, with Jonathan Beard leading much of this work. You'll still find a bridge over the stream in the entrance room, and the trails in the entrance room are still lined with rocks. Otherwise, however, most reminders of the cave's show cave past—such as the lighting system—have been removed.

Jim and I arrived early Friday evening, right at sunset, so we quickly set up camp and said our hellos to Jeff and Amy Crews, Scott House, Richard Raber, Mick Sutton, and many others. Jeff and Amy cooked dinner for everyone. In the morning, a few additional cavers arrived, such as Jonathan Beard, who would be leading the restoration trip in Onyx Cave.

Scott House made work assignments. He put both Jim and me on the Onyx Cave restoration trip. This would be my first trip in the cave. The restoration group also included Richard Raber, Rodney Raber, and Tandi Edelman.

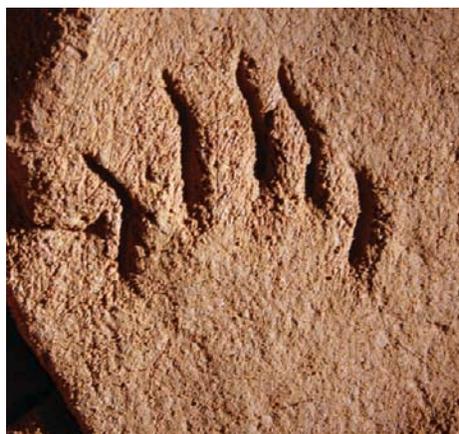
The Onyx Mountain Caverns Visitors Center still sits at the top of the steep hill above the cave entrance. A paved trail curves beside the visitors center and twists through the trees to the cave mouth. We followed Jonathan as he climbed through the fence at the start of the paved trail and descended the hill.

Jonathan said the previous owner had erected a wooden wall at the entrance. It kept bats from using the cave. When the NFS took possession of the cave, a new gate of angle iron was installed. The cave entrance is wide. Dirt and breakdown in the middle of the span have actually split the entrance in two. As you're standing at the entrance looking into the cave, the larger entrance is to the left. That's where the gate is now at. The left entrance is about eight feet high and 30 feet wide. The right entrance is a crawlway, maybe two feet high by 15 feet wide.

Jonathan opened the gate and we stepped in. A wide trail curves into the large entrance room. This room is so large that the military once considered using the cave for wind tunnel experiments. (I'm not sure how serious those discussions ever became.) The room is about 80 feet wide and the ceiling is probably 25 to 30 feet tall. Old dry formations sit deteriorating on the right side of the trail. The trail crosses the stream on a sturdy wooden bridge. A side trail heads to the right for a brief peek at the cave's notoriously nasty stream passage. "Mostly just mud," says Richard Raber who visited the cave several times back in the 1960s. The map shows several hundred feet of winding passage.



Top: The entrance of Onyx Cave (photo by Gary Johnson). **Above left:** Seeds encased in flowstone along a ledge in Onyx Cave (photo by Tandi Edelman). **Above:** Soda straws (photo by Tandi Edelman). **Left:** Flowstone and draperies in the main passage (photo by Tandi Edelman).



Our destination was to the left. This passage is much longer than the right passage, and it's highly decorated. We followed the old commercial trail into the area where a trail had been blasted through the formations. Then we ducked past some formations and crawled up a ladder. After crawling up a gravel slope, we were standing at the base of the mining shaft. To the right, a passage descended beneath a thick ceiling of calcite. Large parts of the walls and ceiling in this area are completely composed of calcite, but they're weathered so at first glance it's hard to tell that you're looking at calcite. At the base of the slope, we hooked to the left and slogged through red mud.

Here, we found one of the saddest sights in the cave: a highly decorated alcove on the left, which contained several massive columns (20 feet high and six feet thick) that had been largely destroyed. Back during the cave's mining days, someone had decided to remove the columns in this area. The drilled the columns off the ceiling. You can still see the marks of the drill bit. But after toppling these columns, the workers discovered the pieces were too large and bulky to move. Just getting them up the slope to the shaft would have been impossible without further chopping the pieces into smaller sections. This additional work never took place. The toppled columns now simply lay in the alcove, a thick wall of calcite (many feet thick) separating this area from the shaft.

While the cave does have a few additional examples of broken/destroyed formations in the main passage, most of this passage is in surprisingly good shape. The mining operation was largely confined to the base of the shaft, where several large blocks of calcite were removed from the wall.

We headed deeper into the cave and almost immediately encountered graffiti. That's why we were here. Jonathan was packing brushes. Our main mission was to brush away graffiti and to pick up carbide dumps. The carbide dumps were thankfully scarce. But we found many names scrawled on clay banks, large rocks, and even on dry flowstone walls.

Jonathan gave us tips on how to use the brushes and maintain the patina of the original surface texture. In one area, he showed us how to cover the brush strokes by scraping up crumbled rock and sprinkling it over the surface of the work area.

One of the highlights of the trip down this passage came when Jonathan found a

Left column: Richard Raber cleaning graffiti from a ledge (photo by Rodney Raber) and a grotto salamander (photo by Jonathan Beard). **Middle column:** Tandi Edelman taking notes (photo by Rodney Raber) and a racoon track deep in Onyx Cave (photo by Jonathan Beard). **Right column:** Before and after examples of graffiti clean up in Onyx Cave (photos by Jonathan Beard).



A ringed salamander in Onyx Cave (photo by Tandi Edelman). **Below, left to right:** Flowstone in the main passage, claw marks on a clay ledge, and desiccated flowstone in Onyx Cave (photos by Tandi Edelman).



very rare cave critter—a ringed salamander. You don't typically find ringed salamanders in caves. Maybe it fell in. It's somehow surviving. We found it well over 1,000 feet beyond the shaft. So it isn't simply staying in the twilight area. Maybe it's finding sufficient food to eat. (Later, we told Mick Sutton about our find. He's one of the leading cave biologists in Missouri. And he said he found a ringed salamander in Onyx Cave several months ago. Maybe this was the same one.)

We continued further in the cave, mostly staying to the main passage, all the way back to the collapsed end. The main passage just ends all of a sudden, with large breakdown blocks on the left. A very thin person might be able to squeeze over the top of these large blocks. But the cave map shows the cave ending right here, so I doubt if additional passage exists beyond.

We rested at the end of the passage. I climbed up to the very end of the passage and discovered more graffiti, which I scrubbed away. In this same area, I also found a small slimy salamander. Additional graffiti on the ceiling in front of the collapse kept us busy scrubbing for several more minutes.

On the way back out, I checked several side passages for additional graffiti and I hit the jackpot (relatively speaking) in a small crawlway leading to a small dome. Whoever had explored this passage did so with a carbide lantern, and they didn't apparently think twice about dumping their spent carbide on the floor. Jonathan crawled in after me and we spent probably a half hour cleaning up the carbide dumps.

While the side passages in Onyx Cave can get small and difficult, the main passage is mostly dry, level, and fairly easy to visit. There is one section with deep mud, but the mud is easy to avoid by staying high on a ridge. Some people in our group opted to slosh into the mud instead of balancing atop the thin rock wall. They had mud up to their waists. I think they regretted their decision.

The most noteworthy aspect of this passage is all the flowstone. This is one of the most highly decorated passages that I've ever seen. From the shaft to the collapsed end, you are frequently walking past walls covered with flowstone. Much of this flowstone is dry but it's still impressive. Don't pass up an opportunity to visit this cave.

On Sunday, the MSS meeting was held at the usual place in Rolla, the DNR office. Jim sat in for Jeff Page at the front table as a variety of topics were brought up for discussion, with the format of the next MSS meeting receiving the most discussion, with two camps emerging: those people who want meetings on Saturday so they can get easy



Top: Unusual formation from Onyx Cave (photo by Tandi Edelman). **Above:** Afternoon rays of sunlight pour into Onyx Cave (photo by Jonathan Beard).

access to the cave files and those people who liked the work weekend format and wanted to move meetings to Sunday. The latter group seemed to have the most supporters so that format might be used more frequently in the future.

This was a valuable trip. I was able to meet several key people in the Missouri caving community, people I've communicated with in the past but never actually met, such as Jo Schaper and Bob Taylor. In addition, this was probably the first time I had the opportunity to talk with Scott House in person for more than just a few seconds. And of course, it's

always great to work with Jonathan Beard and learn about restoration techniques. I hope to attend more MSS work weekends/meetings in the future. ●

Buffalo River Vertical

trip report and photos
by Mark Lankford



Saturday May 26

Cave Mountain Cave

My wife Maria and I started the day by meeting Wade and Gina Baker for breakfast at our usual meeting place, the Ozark Café in Jasper, Arkansas. We enjoyed a good breakfast, then left to meet the rest of our group. Wade had invited a coworker and his family to join us on the trip. So Joel, Brian, and Lacy Snarr, along with their friend Nate, joined our group.

Once everyone arrived, we consolidated our gear into two vehicles and drove to the parking area across the road from Cave Mountain Cave. This cave is very well known and is only accessible at certain times of the year. When we arrived, we noticed a small group preparing to go into the cave and commented on their lack of gear. They quickly sped off into the cave well ahead of us.

In the parking area, we spent some time making sure everyone had the appropriate gear. Once everybody checked out, we walked a few hundred feet to the entrance of the cave.

About a hundred feet inside the cave entrance, Wade began rigging the small drop that would get us pretty close to our objective for the day, the sculpture room.

Once the rigging was ready, I quickly rappelled to the bottom of the drop to provide a belay and assist anyone that needed it. About the time we got the last person in our group down the drop, the group that we had seen in the parking lot showed up looking a bit tired and very muddy. After talking to them, we found out you can see the whole cave without any

Top: Wade Baker on rope at Ozark Adventure Pit (photo by Mark Lankford). **Right:** Gina Baker gearing up at Cave Mountain Cave (photo by Mark Lankford).



vertical gear; however, the alternative is going through what they called the “Birth Canal.” Judging by their appearance and the name of the route, it was obvious we opted for the easier path. After everyone was safely at the bottom, we began the short trip to the sculpture room. The way is pretty easy going with just a little bit of crawling and well worth the trip. Once there the number of sculptures was surprising. It is obvious the people have spent a lot of time working on some of the sculptures. We found out Lacy was majoring in art and she was especially enjoying the sights. She was the last one to start back, taking many pictures as she went along.

Once we were back at the drop, Wade climbed up first to assist people at the top. This proved very useful as some of the group had minor problems negotiating the lip. Everyone made fairly good time on the climb and we were soon back on top. Once all the rigging was packed up, we headed out. As we were exiting the cave, we ran across two women visiting from Minnesota. They were dressed in typical attire: shorts, sandals, and t-shirts and not a light between them. They asked about how to get involved in caving. Wade was kind enough to answer. We made our way back to the parking area, loaded up our gear, said our goodbyes and headed out.

Sunday May 27

Ozark Adventure Pit

Once again Wade and Gina met my wife and me at the Ozark Café. The last member of our group met us there also, but we soon found out he had a pretty rough day caving Saturday and wasn't up to dropping the pit. After a brief discussion, we finished our breakfast and left for the trailhead. The trail turned out to be fairly steep, but it was nothing in comparison to the terrain we had to negotiate once leaving the trail. Luckily for us, there were plenty of saplings to grab hold of to prevent us from sliding down the hill and off the bluff below. Once in the area, Wade spent a few minutes locating the small opening to Ozark Adventure Pit. We had to be careful, as the entrance is only about 30 feet from the edge of a large bluff on a very steep hillside. We had heard several different measurements on this pit, so this day we



Above: On rope at Cave Mountain Cave. **Right:** (Top three photos in right column) Clay sculptures in Cave Mountain Cave. **Next to bottom:** Mark Lankford helps a caver adjust his vertical gear. **Bottom:** Gina Baker on rope in Cave Mountain Cave. (All photos this page by Mark Lankford.)

had two objectives, to drop the pit and then get a rough measurement of the distance.

After clearing some of the downed trees out of the way, it only took a few minutes to rig the drop. Our group decided only Wade and myself would bottom the pit, so Wade eagerly went first, followed by myself. It is a nice, mostly free rappel with a few formations to see on the way down. There are a few small crawl areas at the bottom that may or may not go anywhere. We were short on time that day and did not attempt to check them out. We did however do a quick bio check before climbing out. I volunteered to be the first one out. After working a bit to get the stretch out of the new rope we were using, I had a very easy and cool climb out. Wade decided to take it even a bit easier. I think he checked out every little crack and crevice for bio and also cleared some dangerous rocks that could possibly cause cavers a problem in the future. A quick measurement of the drop showed 138'. Once we were both back on top, we packed up our gear, and headed back to the trail. After a very strenuous 45 minute hike up the hill, we were back at the truck, where we took a few minutes to discuss our adventures and then headed home. ●



In Beauty Cave, Out Bat Cave

Nine Hours in Fitton

trip report by Andy Isbell

photos by Chip Stratton
and Gary Potter

At a gas station at the Missouri/Arkansas border, I found some people that live eight miles away from where I was going. I followed them and had no trouble finding Compton, Arkansas. Hope they are there the next time so I can follow them again. Lots of turns. I was tired and don't remember how I got there. I went home a different way.

Wade Baker led the trip to Fitton Cave. Besides Wade and I, the group included Brad Sauer, Brent Snyder, Carrie Peter, Daniel Ray, and Robert Strong. We parked at the trailhead near Compton. The trail is an unofficial trail. Not maintained or marked but pretty easy to follow. Got off trail once (not on purpose) coming out. We had to bushwhack (on purpose) off trail at a cairn to cross the creek, find the trail again, head up a ravine, climb a STEEP hill, and enter the Beauty Cave entrance of Fitton Cave. This is the dry side.

We entered the cave at 10:24 a.m. The entrance room is 800 feet long and maybe 100 feet wide. To leave this room you climb to a lower level and head into the trunk of the cave. Fitton is a multi-level cave. Wade said there are five levels when you go from the dry side to the river side and out.

At the Manhole, we took the West Passage and did a lot of crawling, eventually turning back near the closed area. Then we returned to the Manhole and dropped to the lower passage, using an etrier. We followed this passage to the T-Room and then took the Upper East Passage to the Needles Eye, which is somewhat tight but an easy squeeze. Just beyond the Needles Eye, we dropped into the Lower East Passage.

Beyond here is where we got lost for one and half hours! Ah, the things that go through your mind. What Fun. The important thing is we did not PANIC. We had our time in and out prearranged with people on the outside.



In the 21 Jumps passage, we jumped twice and then lowered to the water passage, where we took a dry meander to avoid crawling in the stream. I was a bit confused as to where we were, but Wade knew the way. He is an excellent trip leader.

The water passage is INCREDIBLE! Not even a touch of mud! If I were to guess four million gallons a day if not more. If you stretch out your arms, that is the average width of this passage. It is a canyon passage. The walls are 30 to 35 feet tall. The surface of these walls looks like choppy water. Above that is an open space, then the ceiling.

You can see the original stream passage cut into the ceiling. The channel in the ceiling meanders like a snake back and forth, about 50 feet above the passage floor. The current stream passage doesn't



Left: Near the beginning of the Water Passage (photo by Chip Stratton). **Above:** Wade Baker in Fitton Cave (photo by Chip Stratton).

meander nearly as much as it did millions of years ago. Maybe some day it will cut through this limestone layer and change again.

The water was moving rapidly toward us as we headed to the Bat Cave entrance. In single file, we followed this passage for over a mile. The deepest point was chest deep. Chert nodules stick out of the walls. Because limestone is softer than chert, the limestone would dissolve away and leave the chert.

We made it to the Round Room in good time. At the Round Room, the stream is on the edge of the room. At the upstream entrance to the room is a sign: "If You're Not a Bat Do Not Enter Between Aug 15

and May 15.” We were OK to enter. The bats (gray bats) are gone at this time of year.

The Round Room is very large and has a dome. The room is 10 feet above stream level. The room has smooth walls. No formations. It’s about 60 feet wide and 50 feet tall. We briefly exited the water to admire the 50-foot high dome. This would be the perfect cave camp spot as long as the stream didn’t rise too much. It may sound silly but this room gave me the feeling there’s something bigger out there. Take that any way you want. It is a FANTASTIC room.

After a brief rest in the Round Room, we continued the trek toward the Bat Cave entrance. We walked against the stream for over one mile, struggling against a strong current most of that time. There are several water chutes/slides that must be climbed. They drop at about a 70 degree angle. We came across one just three and a half feet tall, but it was difficult to get up because the water was really moving. The biggest one of these is about 7 feet tall. It was next to impossible to get up. No kidding. Wade managed it but by the time he was at the top he was on his knees losing one inch for every two inches he moved. The spray off him soaked everyone below. We used the etrier here. He looped it around his shoulders, braced his arms, and the rest of us used it to climb up. WOW, WOW, WOW!

In the next quarter mile, we felt a warm breeze. We came around a bend and super-califragilisticexpialidocious. WOW, WOW, TOTAL WOW: a 47-foot waterfall! This room is windy. The first time in a windy room in a cave for me. Several of us stood under the falls. It pounded us. It was GREAT. I will remember that waterfall always.

Going on from there, you have to climb up three levels. Vertical, horizontal, vertical, horizontal, vertical, to ledge crawling, and horizontal. To get to the ledge was very difficult. The space below the ledge is pear-shaped. You can’t reach from wall to wall so you can’t chimney up. I think it was Brent who helped Wade up with a boost. The rest of us used Brent’s shoulders to climb up. Wade then gave Brent a hand up to the ledge. Brent is tall. I think this

helped him get up. He was the last one up. We would have never made it without teamwork. It’s one of those places you have to step on a friend and then turn around and give him a hand. There are bat monitoring stations in this part of the cave. Is there an easier way to get to them?

The upper level of the cave at this end is very wide and full of breakdown. There is some crawling necessary here. Then it opens back up near Bat Cave entrance. Another massive waterfall comes from the right as you’re heading out. There is more water in this cave than the creek just outside the cave. I think this waterfall is Horseshoe Falls. We exited the cave at 7:30 p.m.

We didn’t do a bio count in Fitton but did find three larvae salamanders, several *Campodeid (dipluran)*, which are usually found on dry surface, several Eastern Pipestrelle bats (*Pipistrellus subflavus*), one camel cricket (*Ceuthophilus gracilipes*), and three Rove or Staphylinid beetles. The vent end of the beetles had a little point to it not like the Potomaphagus beetle, and not nearly as long as shown for Rove beetles in Bill Elliott’s *Missouri Cave Life* booklet. But, hey, 50 species of beetle are known in Missouri. We also saw two cave-adapted Harvestmen, aka Daddy Longlegs (*Lieobunum sp.*). We believe these were a male and a female. Their bodies were an eighth of an inch wide and their legs spread out to about the size of a nickel. A first encounter for me. We also found the bones of a raccoon.

We also visited Willis cave. It has a stream in it. We found three cave salamanders (*Eurycea lucifuga*) and three grotto salamanders (*Typhlotriton spelaeus*). We walked right past Devil’s Den Pit and Little Den Pit. Had a wonderful, wonderful trip. I suggest you go if you can.

Thank you all for this cave trip. Thank you, Wade. It was great. ●

Climbing a waterfall in the Water Passage (photos by Gary Potter).

