

The

The Kansas City Area Grotto

GUANO

Volume 19

Issue 1

June 2005

KCAG Goes Southeast

Caving in
Kentucky, Tennessee,
Virginia, and Alabama



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Jerry Cindric on rope at the entrance pit of Stephen's Gap Cave. Jim Watson stands at the base of the drop and captures the event with his video camera. Photo by Ben Boling.

Events

June 4-5, 2005

The Minnesota Speleological Survey will be hosting an "Orientation to Cave Rescue course" put on by The Central Region of the National Cave Rescue Commission of the NSS. The purpose of this course is to acquaint EMS, Fire Service, and/or rescue personnel and cavers with unique problems of finding and extracting lost/injured people from the cave environment. This is a two-day course that involves strenuous activity and requires each participant to be in good physical condition.

This is an introduction to cave rescue. Topics covered include Incident Command System and how it applies to cave rescues, medical management, hypothermia, patient packaging, extreme situations, the cave environment, communications, media interaction, search, and more. There will be both classroom and hands on instruction, and the students will participate in a mock incident on Sunday.

The seminar cost is \$35 for both days. To help keep costs low, all instructors are volunteers.

For more information about this course and registration form: Please visit www.cavingisfun.org and click on the tab labeled "Minnesota Speleological Survey Events Calendar."

June 11, 2005

KCAG summer picnic — At Rick Hines' house, 16525 Orchard Lane, Stilwell, KS.

July 8, 2005

KCAG monthly meeting — 7:00 p.m. at the Magg Conference Center on the UMKC campus, at the corner of Volker and Cherry.

August 10, 2005

KCAG monthly meeting — 7:00 p.m. at the Magg Conference Center on the UMKC campus, at the corner of Volker and Cherry.

The Guano

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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.

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President: Sam Clippinger (president@kcgrotto.org)

V.P./Treasurer: Bill Gee (bgee@campercaver.net)

Secretary: Gary Johnson (editor@kcgrotto.org)

Web Master: Sam Clippinger (president@kcgrotto.org)

Editor: Gary Johnson (editor@kcgrotto.org)

Copy editors: Bill Gee & Pam Rader

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* **Editor**

With this issue of *The Guano*, we head east of the Mississippi River to Kentucky, Tennessee, Virginia, and Alabama. Due to the huge number of caves in the Ozarks, some Missouri cavers rarely venture far away from home. But it's good to get away from home every now and then to experience different landscapes and to witness different geological processes.

For example, in Missouri rock layers tend to be fairly horizontal; however, in eastern Kentucky and Tennessee, rock layers are frequently tilted precariously, as at Gap Cave beside the famous route over Cumberland Gap. In addition, while limestone and dolomite predominate throughout most of Missouri, sandstone predominates much of the Cumberland Plateau in north central Tennessee, as at Big South Fork National Scenic River, where arches and shelters are common but cave systems are rare, but throughout most of the state, caves are plentiful, with numerous pits that are several hundred feet deep. And of course, in TAG country to the south, the pits get much deeper yet.

I strongly encourage everyone to take the opportunity to acquire caving experiences away from their usual caving territory. Many caving conventions similar to MVOR exist throughout the country and these conventions are ideal opportunities for learning about caves and geology.



This bridge crosses the Big South Fork at old mining town named Blue Heron (photo by Jeff Page).

Best wishes,

Gary Johnson

Guano editor

The April Fools

**Caving in Alabama
at Stephen's Gap,
Valhalla Cave, &
Fern Cave**

report by
Jerry Cindric
photo by
Ben Boling



It rains in the southeast United States in the spring time. We all know that. It's just that when you have a cave trip planned, you hope you get a few days precipitation free. Not so for the April Fools. Jerry Cindric, Jim Watson, and Ben Boling left Thursday, March 31, for TAG country with permits for Stephen's Gap, Valhalla, and Fern Cave in hand. None of us had been to any of these fine TAG caves. We planned to enjoy these three caves on April 1 and April 2, returning back to Kansas City on Sunday the 3rd. We took my van, enjoying classic videos such as *Eurotrip*, *Bad Santa*, *Harold and Kumar Go to the White Castle*, and *Napolean Dynamite*.

Once in Huntsville, we learned that it had rained hard on Wednesday, and we were about to learn that it was to rain hard Thursday night, Friday morning, and Friday late afternoon. We headed to Stephen's Gap Friday morning after the rain subsided. We hauled the 200-foot rope and plenty of still camera and video equipment. It was a pleasant half hour hike up to the cave. The sound of the waterfall from some distance away was a hint we were getting close. Now, we had seen several nice photos of Stephen's Gap with light beams cast upon a posed caver, but we had never seen water in any of the photos. There was a torrent of water entering the pit. There are two entrances to Stephen's Gap, a 140-foot drop and a walk-down entrance. This second entrance is nice for photography because you don't need to deal with the photo equipment on rope. The pit is wide enough one can avoid the waterfall with the rope properly placed. What resulted was a great photo opportunity. Ben took most of the still shots and Jim the video while I set rope and posed. Ben has recently discovered using flash bulbs, so he tried some photos with bulbs and

Previous page: Jerry Cindric descends the entrance pit at Stephen's Gap Cave as a waterfall drops immediately behind him (photo by Ben Boling).

some bulbless. We traded some jobs while the rain held off and then headed back to the van.

Our next stop was Valhalla Cave, a classic SCCi pit, northeast of Scottsboro. We ended up not driving the "direct route." We eventually found the road off the highway, opened the combination lock at the gate and started up the two miles to the parking area. We had learned while obtaining the permit that the road would only be passable using a four-wheel drive. The

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plan was to drive as far as we could then walk the rest. We went about half a mile and found a place to pull off. The rain was just starting up again, as was the lightning. It soon became a deluge and was not to stop for a long time. It was now 5:00 p.m, so we headed back to Scottsboro to have dinner and discuss our bad luck. We ran into a caver (Guy) working at a local restaurant. We whined about the weather and told him we had a permit for Fern Cave on Saturday. The Surprise Pit entrance to Fern Cave has a 430-foot drop so we had the 510-foot rope with us. In discussing the entrance drop with Guy, he said some-

thing about dropping the pit being like "the water of six garden hoses shooting you in the face"—pretty picture.

Saturday morning was blustery but NO RAIN. We headed off to Fern Cave, the longest cave in Alabama. I took the van places it should not have gone, especially after the rains, but we eventually arrived at the parking spot. As directed, we continued walking down this road, but it soon disappeared into the flooded Paint Rock River. Some of our landmarks were underwater. We headed up the mountain, needing to gain about 500 feet of elevation, which was fun with all the gear. We arrived at the appropriate level and quickly found the horizontal entrance, called the Johnston Entrance. We walked the same level and soon found the Surprise Pit Entrance. There was a waterfall in Surprise Pit that rivaled the water falling into Stephen's Gap. I had been told that there was a small entrance on the right where one could enter the cave without getting wet; not today. I put on my helmet and went in for a look. The passage curved toward the main waterfall entrance and then started to follow the water down towards the pit. I did not go far, as I imagined being swept off my feet in the water rage and down the pit; I thought about that saying that includes the words "discretion" and "valor" ... I turned around. Because I was already wet, I exited through the waterfall. It would be Johnston Entrance for us today. With a lighter load, we spent about five hours in the cave. The cave's sinewy passages and multi levels reminded us of many Missouri and Arkansas caves. We saw a few formations, a few in-cave pits, and an impressive amount of guano. We got a nice workout traveling the multi-levels of the cave. We exited about dusk and hustled down the mountain so we could get to the Western Sizzlin buffet before it closed.

We will be back some day when the monsoons subside. ●

SERA 2004

Bill Gee's Trip Log

trip report by Bill Gee
photos by Bill Gee and
Jeff Page

Saturday 15 May

Gary Johnson and I met at the Apple Trail restaurant at the Grain Valley exit on I-70. We gassed up and hit the road. Lunch in the western suburbs of St. Louis, then on south on I-55. Gary reported that his borrowed FRS radio was giving a low-battery warning. We did not have the car adapter for it and thought it took a non-standard battery, so we stopped at Wal-Mart in Perryville. We found a reasonably good radio for \$11 on the closeout rack. Gary picked up some other supplies and we hit the road again.

After crossing the Mississippi and Ohio rivers, we went through Paducah and on to Kentucky Dam. We stopped at a pullout on the dam for a brief look. The weather was cloudy and there was a lot of haze in the air, so we could not see much of the lake.

We missed the turn for The Trace which goes down the middle of Land Between the Lakes (LBL). A quick U-turn and we were going the right direction. The Trace is paved but rather narrow and winding, much like our familiar Ozarks back-country roads. The area is heavily forested, so there were no vistas. The road to Energy Lake kind of sneaks up on you, but we managed to not miss it.

The side roads in LBL are even more twisty than The Trace. The 8 miles of road to the Energy Lake campground took close to 15 minutes to drive. When we got to the campground we were told they had only a few spots available, none with power. That does not bother me. I had not counted on power anyway. We took a spot and went to set up.

By the time we got all set up and had dinner it was nearly dark. We planned a hike for the morning, and then went to bed.

Sunday 16 May

Our early morning hike was a 4.5-mile loop around the Energy Lake campground. Most of this trail is not used very much. It is well blazed with blue tin markers nailed to the trees. Without the blazes, we would have lost the trail a few times. The section that runs along the Energy Lake spillway is much more used—and abused. We saw quite a bit of trash. If we had brought a trash bag, we could easily have filled it with bottles and cans.

We got back to the campground by mid-morning. With some advice from the campground hosts, we decided to go over to Hematite Lake and hike the trail. It's a 6-mile drive on paved roads. At Hematite Lake we saw the remains of an old iron furnace. There were interpretive displays around it, so we stopped there for a few minutes.

The interesting thing about this furnace is how much wood it took to run. One of the main ingredients in the furnace charge was charcoal which was made locally. It took up to 60 cords of wood to make about 2000 bushels of charcoal. The charcoal hearths would take 10 to 14 days to make this much charcoal, and the end result would run the iron furnace for about a day. Keeping the charcoal hearths running must have denuded the whole area of trees.

The hike around Hematite Lake is a little over two miles. The trail is wide and well-marked. Because the area had been getting very heavy rains, the lake was full to overflowing and the trail was a bit muddy in spots. To make a complete loop, you have to cross the spillway area on a trail of flat stepping stones. Every stone had a half-inch or so of water flowing over it.

About 2/3 of the way around the lake is a wildlife observation blind. It is reached from a short causeway that leads about 150 feet into the lake. We went out there and looked around. A couple of birds must have had a nest in the area because they kept buzzing us.

The back part of the trail where it crosses the feeder streams is all boardwalk. Most of this boardwalk was only an inch or two above the water. Without the boardwalk we would have been in calf-deep water. One section of the boardwalk was actually under water a few inches.

Top: A hiking trail heads across stepping stones at Hematite Lake (photo by Bill Gee).
Middle: Marshy areas of the Hematite Lake trail follow a boardwalk (photo by Bill Gee).
Bottom: An observation blind on Hematite Lake is connected to shore by a bridge (photo by Bill Gee).





After returning to the campground we had lunch and then packed up and hit the road. The first five miles out of the campground were on dirt roads. The dirt road meets the highway just a few hundred feet from the bridge crossing Barkley Lake. This bridge is very narrow. I was nervous about hitting the camper on the bridge rail all the way across. Fortunately we did not encounter another wide vehicle.

The rest of the drive to Mammoth Cave was uneventful. US 65 is a divided four-lane road all the way to Bowling Green. Nice, smooth highway ... and 55 mph speed limit! It felt like we were crawling, even by my slow driving standard. Around Bowling Green on the Interstate and then about 40 miles to the Cave City exit. The western entrance road to Mammoth Cave is under construction, so we had to detour over to the eastern entrance. At the campground, we verified my reservation, drove in, and set up camp.

Gary wanted to do some more hiking. I elected to stick around and have dinner. Gary said if he was not back by 8:00 p.m. to call out the dogs. This was around 5 or 5:30. Mammoth Cave is in the eastern fringe of Central Time zone, so sunset is earlier than what we are used to. In mid-May sunset is around 7:45 pm, and by 8:00 p.m., it is nearing full dark. Gary got back at 8:04.

Monday 17 May

Gary and I went for some morning hikes. His evening hiking had been right around the visitor's center. We first went to Sand Cave to pay our respects to Floyd Collins. The trail out to Sand Cave is board-

Above left: High water at Hematite Lake frequently blurred the line between land and lake (photo by Bill Gee). **Above right:** The remains of a smelting furnace near Hematite Lake (photo by Bill Gee). **Right middle:** The remains of a smelting furnace near Hematite Lake (photo by Bill Gee). **Right bottom:** A millipede at Land Between the Lakes (photo by Bill Gee).

walk all the way and only a couple tenths of a mile. There is an overlook where you can see down into the hollow at the cave entrance. It's a pretty big entrance. We could not tell if it is gated, though it probably is.

The next stop was Cedar Sink which is 10 to 15 miles west of the Mammoth Cave visitor's center. We took the scenic route along a country road barely one lane wide. The hike out to Cedar Sink is just under a mile on a very well-travelled trail. There are two observation platforms, one at the top of the sinkhole and the other at the bottom. The whole area is heavily wooded, so you cannot see one platform from the other because of the trees.

When we got there it was obvious that the area had seen a lot of rain recently. The river flowing through the bottom of the sinkhole looked like it was up 8 or 10 feet, and had been 10 to 15 feet higher within the last week or so. Halfway down the trail into the sinkhole we saw a large shelter just off the trail. We went over to investigate. It was about 20 feet deep at the deepest point and several hundred feet long. In one small area, we found flat rocks piled on top of each other to form a room maybe 6 feet by 8 feet. The wall was only a foot high. There was no mortar. We could not tell anything about how recently it had been made.

From the bottom of the sinkhole, you can see a small cave about half-way up the sheer rock face. It had a gate on it. Given that it was almost directly above the stream entrance, we figured it probably gave access to some portion of the underground stream.

Our last hike was at Turnhole Bend on the Green River. This is a short loop trail perhaps 1/2 to 3/4 mile long. Along the way are two very large sinkholes. The lookout over the river is partially obscured by trees. The Green River was 10 to 15 feet above its normal stage and very brown. We called it the Brown Green River!

Back at the campground we met up with Jeff Page. He had arrived about mid-morning and got his camper set up. We all





Top: The entrance of Sand Cave looks pleasant enough, but this is the cave where Floyd Collins died (photo by Bill Gee). **Left:** A spider on a leaf dampened with dew at Mammoth Cave National Park (photo by Bill Gee)

had lunch and discussed plans for the rest of the day. The decision was ... Horse Cave!

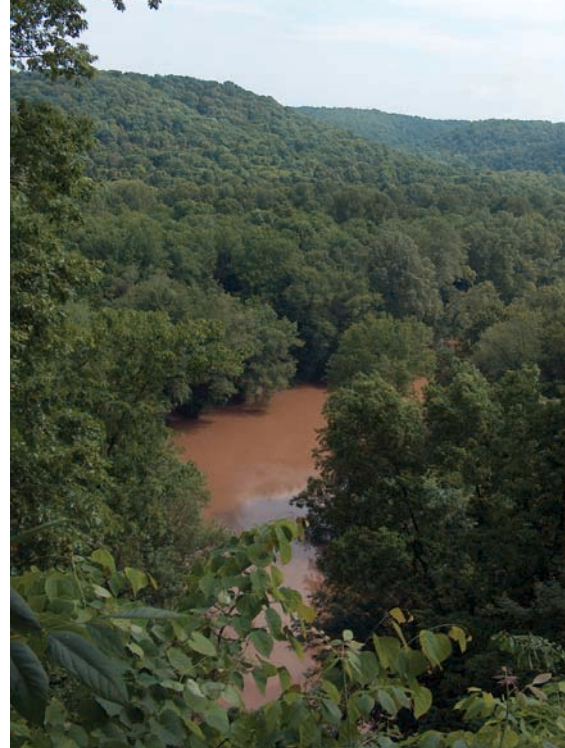
We all drove to the American Cave Conservation Association Museum in the town of Horse Cave. The museum sits in the sinkhole entrance of Lost River Cave, and the sinkhole is surrounded by the town's downtown. We parked on the street, practically on top of the sinkhole. You can look down 40 or 50 feet from the sidewalk directly into the cave entrance.

The museum is clean and modern and has some interesting displays. Cave tours leave from the museum, go down an elevator into the sinkhole, and then follow a trail to the cave. Because of flooding they were offering tours only to the entrance of the cave. The boardwalk trail in the cave was under water.

Our guide was very knowledgeable about the history of Lost River Cave. He spent a lot of time talking about how the river became one of the most polluted cave rivers

in the country and what was done to save it. The emphasis of his presentation was on how water flows in a karst landscape, allowing events miles away to affect the stream in the cave. It's all one big underground river. Everyone has to share it, so everyone needs to protect it.

We went on down the trail to the foot of the stairs. Some of the old pumping equipment is still there from when the cave was the water supply for Horse Cave. Jeff, Gary and I stuck around after the other tourists had gone back up the stairs (162 steps!). The guide let us go down one more level to where we were right on the water. That stream was really flowing. The guide said there were something like 8 miles of known cave in this system and both ends of the survey were still going. The upstream end could only be reached during low water and then only after a very long belly crawl, so exploration and survey were concentrating on the downstream portion.



It was only mid-afternoon, so we decided to take a tour at Diamond Caverns. This is a private cave surrounded by Mammoth Cave National Park. The three of us were the only ones for the tour. Our guide showed us stuff most of the tours don't get to see. Diamond Caverns is highly decorated. It has a large population of cave crickets. There are a few pools of water with nothing alive in them. The entire tour is on a concrete paved trail.

On the way back we stopped at a restaurant for dinner. We looked all over the main drag and downtown area of Cave City trying to find a restaurant, but there were none! Who ever heard of a tourist town with no restaurants! We found an Italian place but it was closed at 5pm on Monday. Finally we went out to the interstate and found all the restaurants. Cracker Barrel was our choice.

Tuesday 18 May

The three of us signed up for the Grand Avenue tour in Mammoth Cave. We got small touristy cave packs ready and went over to the visitor's center. We were astounded to see the big signs warning that backpacks were not permitted. In fact, practically nothing was permitted! Not even belt packs and fanny packs! Gary went inside and asked about it. He was told this was a not a



Above left: An underground stream system is exposed for 200 feet at the bottom of Cedar Sink (photo by Bill Gee). **Above right:** Recent rains left the Green River high and brown (photo by Bill Gee). **Left:** This shelter cave hugs the edge of Cedar Sink (photo by Bill Gee).



Above: The entrance of Lost River Cave is surrounded by the downtown of a town called Horse Cave (photo by Bill Gee).

new rule, but they had only begun announcing and enforcing it a few weeks earlier. We grumbled and moaned, then went back to our campers and stripped down to what we could carry in our pockets.

The Grand Avenue tour should be taken by everyone at least once. It is the longest tourist tour at Mammoth cave and it sees the most cave. We were with about 40 other people which is about 1/3 the size of some groups. At times I felt the ranger was going too fast. There is a section several hundred yards long with a seam of gypsum right at eye level. In pockets here and there the gypsum has turned into some very nice needle formations. They are, unfortunately, black with dirt from passing tours. The pace was fast enough that I could not really stop and look at them.

We got back to the visitor's center shortly after 3pm. That was just enough time for Gary to get a ticket on the Historic Entrance tour at 3:30. Jeff and I both decided to take a pass on this. We went back to the campers, had dinner, and relaxed for the evening.

Wednesday 19 May

Jeff and I left early in the morning and drove to Big South Fork National River and Recreation Area. Gary had some errands to run, so he decided to travel behind us a bit.

Mammoth Cave Tours

Mammoth Cave National Park offers a wide selection of cave tours, from brief tours that only visit the most highly decorated section of the cave (such as the Frozen Niagara Tour) to genuine wild caving trips.

The Historic Tour is highly recommended for anyone who wants to get a good sense of the cave's history. It enters through the Natural Entrance, which is only a short walk from the visitor center. This tour introduces visitors to the remains of the saltpeter operations in the Rotunda. Large vats were built here for leaching saltpeter out of the cave soil. Hollowed out

birch logs carried water into the cave. These logs still run beside the Historic Trail for several hundred feet into the cave. This section of the cave is huge. It's a canyon passage, frequently over 100 feet wide and 60 feet high. The trail winds past many of the cave's most famous features, such as

Mammoth Dome (a huge dome complex over 150 feet high), the Giant's Coffin (a large breakdown block in the main passage), the Ruins of Karnak (massive pillars carved by dripping water in Mammoth Dome), and the Bottomless Pit (a large dome/pit that the tour trail traverses by way of a bridge). In the not so distant past, variations of this tour extended all the way to the underground river in the cave's lowest level and included boat rides on Echo River. However, in order to help preserve this fragile biotic environment, this latter section of the cave has been closed to tours; in fact, restoration efforts are now taking place to remove the trail's infrastructure.

Other tours also enter through the Natural Entrance. The Violet City Lantern Tour follows the Historic Tour route as far as the Giant's Coffin (at which point the Historic Tour twists down to a lower level) and then continues past one of the cave's most famous features—huts built for tuberculosis sufferers (the remedy didn't work so the huts were eventually abandoned). This tour passes through one of the largest rooms in the entire cave, Chief City, and exits the cave through the Violet City entrance. The Star Chamber tours enter through the Natural Entrance and follow the Violet City tour route as far as the Tuberculosis Huts before heading to the Star Chamber, in which the ceiling, as the room's name indicates, looks like a starry sky (thanks to gypsum accumulations on the ceiling that readily reflect lantern light).



Above: Gypsum encrusts the ceiling of the Snowball Dining Room in Mammoth Cave (photo by Bill Gee).

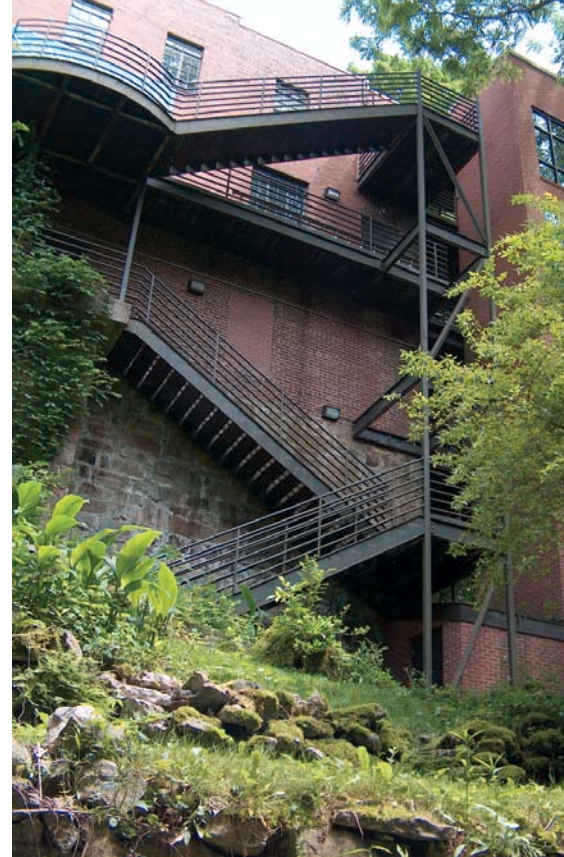
The Carmichael Entrance is located in the same sinkhole as the Violet City Entrance. A short bus trip takes visitors to Carmichael Entrance, which is where the Grand Avenue Tour begins. This is the longest conventional tour offered at Mammoth Cave. It lasts approximately four hours and covers five miles of cave. Much of these passages are large tubes that millions of years ago carried water in the phreatic zone. Now these passages are high and dry after the Green River cut a deeper valley and drained the water table. These passages are now so dry that gypsum flowers have grown in plen-

tiful deposits along the walls and ceilings of Cleaveland Avenue. At the Snowball Dining Room, gypsum has formed snowball-sized deposits on the ceiling. While Indians frequently visited Mammoth Cave through the Natural Entrance and mined gypsum deposits and other minerals, the passages visited by the Grand Avenue Tour were too far into the cave for Indian miners to reach (although Indians using simple

reed bundles as torches did in fact go two to three miles into Mammoth Cave through the Natural Entrance).

The Wild Cave Tour follows much the same route as the Grand Avenue Tour, but it takes frequent detours through crawlways. Eventually, it leaves the Grand Avenue route entirely in favor of a canyon passage that leads to the Cathedral Dome complex. Near its end, the Grand Avenue Tour enters one of the most highly visited areas of the cave. This is where most of the cave's calcite deposits can be found. Due to a thick overlying layer of sandstone, little water has dripped into the cave to create formations. But at the New Entrance, which was dug in the 1924, the sandstone cap layer has eroded away, leaving limestone exposed and allowing water to percolate down into the cave system and deposit calcite in impressive displays. Frozen Niagara is a huge flowstone cascade, 75 feet high. Unfortunately, the formations in this area have suffered severely from visitation. Many are discolored. Fences protect some of the more fragile formations within an arm's reach of the trail.

The National Park also offers cave trips to Great Onyx Cave, which is located on the north side of Flint Ridge. This cave has not been linked with the Mammoth Cave system.



Jeff and I got there about noon and set up our campers. When Gary had not shown up by 3pm, we decided to do some hiking on our own. We left a note on my camper and took off.

The part of Big South Fork we were in used to be a coal mining area. There are several nearby coal mining camps. Jeff and I went to one called Blue Heron, named after the mine. The coal tippie and bridge are still there. Many interpretive displays have been set up. We spent an hour or more just looking at all the exhibits. There was no way we could get in the full loop trail, so we decided to hike out to the first overlook and maybe the second if time permitted.

The hike was moderately strenuous. It gains several hundred feet of elevation in about a mile and a half. About one mile out we came to a place called Cracks In The Rock. It looks like someone cut a saw kerf

about 10 feet wide through a boulder that is a hundred feet or more on a side and 60 to 80 feet high.

At the trailheads and in the brochures, we saw warnings about trees and tree limbs falling without warning, especially in heavy wind. The area has been infested with the southern pine beetle which is slowly killing all the cedar trees. The hickory, oak, maples, and elms are all OK. We saw many cedar trees down along the trail. Judging by the recent evidence of chain saws, some had come down in the last week or two. Those

Top left: The pockmarked ceiling of Diamond Caverns (photo by Jeff Page). **Top right:** The Lost River Cave visitors center sits in the cave's sink hole entrance (photo by Bill Gee). **Left:** A stone-and-mortar marriage altar in Diamond Caverns (photo by Jeff Page).

Mammoth Cave National Park Hiking Trails

In addition to cave tours, Mammoth Cave National Park also offers a wealth of hiking trails. Most of these trails are in the park's north section, so to reach these trails, you must take a ferry across the Green River. If you are short on time, however, you'll find several short trails in the south section of the park, near the natural entrance to Mammoth Cave and the visitors center. The south side of Mammoth Cave Ridge is honeycombed with trails between the ridge summit and the Green River. Altogether, these trails add up to over 5 miles; they'll keep you busy for at least four hours. These trails wind past several interesting features, which include 1) Whites Cave (a gated cave that reportedly contains beautiful, pure-white formations), 2) Dixon Cave (which contains a single large passage and was mined for saltpeter much like Mammoth Cave), 3) River Styx Spring (located at the base of a large bluff, with a short spring branch that empties into the Green River less than a quarter mile away), 4) Echo River Spring (more modest and less scenic than River Styx), and 5) Mammoth Dome (the marvelously verdant valley that feeds the massive dome viewable on the Historic Tour).

In addition to the area immediately around Mammoth Cave's natural entrance and the main campground, the park features three more short hikes on the south side of the park: Cedar Sink, Turnhole Bend, and Sand Cave. Cedar Sink is a massive sink southwest of Mammoth Cave. A metal stairway has been installed to give visitors access to the sink, which is filled with ferns and other vegetation. A wide shelter cave occupies a ledge on the sink's south side. A stream cuts through the bottom of the

sink, providing a rare peek at the workings of a subterranean stream system. The water enters the sink at the base of a 100 foot high bluff (a gated cave is located about 30 feet up this bluff) and runs for 100 yards across the bottom of the sink before it disappears under the bluff on the far side of the sink. Much of this water has been linked to Turnhole Bend Spring, only a half mile away along the banks of the Green River. The trail at Turnhole Bend stays near the top of a ridge overlooking a wide bend in the Green River. The trail used to descend to the river and provided an opportunity to see Turnhole Bend Spring, but his portion of the trail is closed and no longer maintained. In addition to providing a good view of the Green River valley, this trail winds past two nice-sized sink holes, both being over 100 feet across and at least 40 feet deep, and containing jumbles of limestone boulders.

The trail to Sand Cave is very short and wheelchair accessible. This is the cave where Floyd Collins was trapped when a 26.5 pound rock dislodged from a crawlway ceiling and pinned him in the passage until he died from exposure. Nowadays, it's hard to imagine the carnival-like scene that soon followed as rescue teams attempted to free him, while huge crowds of curious onlookers amassed outside the cave. The small hollow at the cave's entrance now seems quite serene and idyllic. A wooden boardwalk leads visitors through a thick canopy of trees to an overlook at the cave's entrance, allowing everyone to pay their respects to one of the world's great cavers. (Floyd Collins is now buried at Flint Ridge Cemetery.)



cedars that were not down were completely denuded of bark.

When we got to the overlook, the view lived up to the promise. The Big South Fork River was several hundred feet below. The overlook area is high on a rock with close to 100 feet of sheer drop at the edge. If not for all the trees at the bottom, someone could have a lot of fun rock climbing and rappelling. You could plainly see groups of naked tree limbs everywhere.

We took a bunch of pictures and then hunted for the continuation of the trail to the next overlook. We did not find it and it was getting late, so we just headed back. When we got back to Blue Heron, we met up with Gary. He had been doing some hiking on his own. The three of us got in my truck and drove to the second overlook. It was only a few hundred feet from the parking area. We all took pictures, and then Gary hit the hiking trail to go back to his truck. Jeff and I went back to the campground for dinner.



Thursday 20 May

I wanted to get to the SERA site early, so I took off right after breakfast. Gary and Jeff stayed behind to do some more hiking. The drive to the SERA site was not difficult except for the last 20 miles or so. The Boy Scout camp where they held SERA is on back country roads that go off of back country roads. You travel for less than a mile on some of those roads before making another turn.

I found the site and got the camper set up. The Boy Scout camp has over 1800 acres along the shore of a large lake. I walked around getting a feel for the area and looking

for a caving trip. No such luck. I found one other person also looking for a trip, but two of us were not enough to do it safely. They had a sign-up sheet for Cuyler Cave for Sunday. It was listed as an 8 to 10 hour trip. Since I did not REALLY have to leave until Monday, I signed up for it.

Jeff and Gary arrived about dinner time. Jeff set up his camper next to mine at the top of a hill and on the north end of a very large meadow. Gary pitched his tent just inside the tree line a hundred feet away. The scout camp is large enough that even four hundred or more cavers don't make much dent in the space. We had our little area pretty much to ourselves.

The cave trip information was run by someone named Doug. The guide book had over 65 caves listed, but no directions. When you decided which cave you wanted to visit, you went to Doug and asked for a directions sheet. He had them sorted by county. Each sheet contained directions for most caves in one county. Doug also had sign-up sheets for

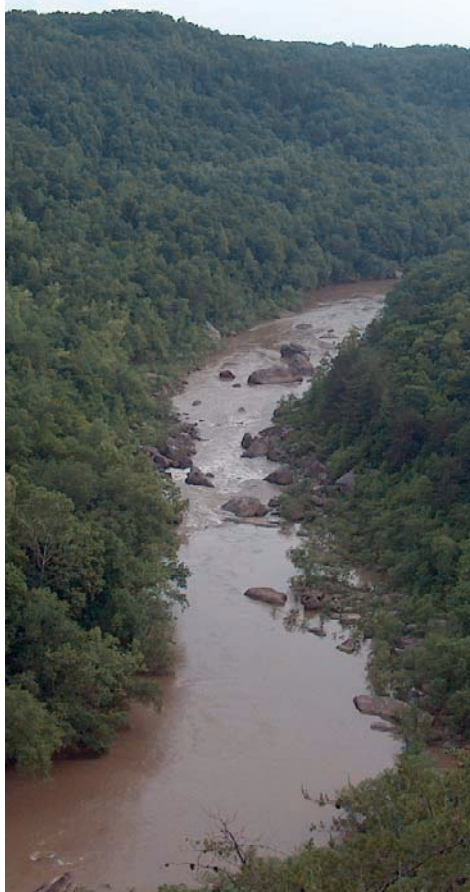


Top left: A reconstructed tippie and bridge sits at Blue Heron mining camp at Big South Fork (photo by Bill Gee). **Top right:** These stairs lead up the bluff at Blue Heron (photo by Bill Gee). **Left:** Wild flowers frequently encroach on the trail at Big South Fork (photo by Bill Gee). **Above:** The tippie building at Blue Heron (photo by Bill Gee).

the guided trips. Most of the trips were self-guided.

Friday 21 May

Jeff and I decided to go to Ausmus Well, a pit cave about an hour drive from the scout camp. Gary did not feel his vertical skills were up to a 120 foot pit. We hooked up with several cavers, including Grace Cooper from Baltimore, and drove to the cave. An hour travel time they promised, but it was more like an hour and 40 minutes! We



Big South Fork Hiking Trails

Big South Fork National River and Recreation Area is widely known for the canoeing and kayaking opportunities it offers on a class III and IV river. Here the Big South Fork flows through narrow rocky cascades, beneath towering bluffs. Several hiking trails criss cross this area, providing access to excellent lookouts over the river, red rock natural arches, and a wide variety of waterfalls. On our recent stop in this area, we concentrated our hiking in the Blue Heron area. Blue Heron is the name of an abandoned mining camp. The history of this camp is recorded in several open-air displays at the original site. These displays describe the mining operations as well as the living conditions of the community's inhabitants. A railroad carries visitors several miles from the Big South Fork visitor center to Blue Heron, where they're free to roam for several hours. The main attraction here is the coal tippie and bridge. Mining activity took place on both sides of the river, so a bridge was constructed upon which miners could easily move back and forth. Ore was brought to the east side of the Big South Fork, where Blue Heron was located. Here a large facility was created for storing ore and loading it into railroad cars.

Hiking trails lead from the ridge high above Blue Heron down through splits in the sandstone bluffs. Lookout stations provide superb views down into the canyon. This is not karst terrain. Caves do exist in this sandstone, but they're mostly of the shelter variety. You won't find limestone or dolomite here. Instead, thin layers of shale and coal are mixed with sandstone. For hikers used to the slippery dolomite of the Ozarks, sandstone comes as a welcome relief, for it provides excellent traction. The most impressive section of trail leading down to Blue Heron from the eastern ridge leads through "Crack in the Rocks." Here, the trail winds through a large fissure that developed in the sandstone layer. The trail curls through the bottom of the fissure and then a wooden stairway leads to the top of massive breakdown boulders. A steep stairway exits the "Crack" and descends for a couple hundred feet.

Equally impressive geologic features and lookouts await hikers on the opposite side of the Big South Fork. A trail heads south from the west side of the Blue Heron bridge and this trail heads up to the best lookout in the area: Dick Gap Overlook. To reach this overlook you'll need to take a horse trail that leads to the top of the ridge. Here, you lose the covering of tree branches, so it can get plenty hot in summer. But the view is worth it. A trail leads from a parking area to the lookout (however, reaching this point by automobile means traveling over 25 miles, while the hike is only about 2 miles from Blue Heron). From this lookout you can see the entire Blue Heron area. You can look down the Big South Fork to the north and you can see around the bend to the east. In other words, you can see much more of the river and surrounding canyon from this lookout than from any other lookout in the vicinity. Another lookout, Catawba Overlook, is nestled among pine trees about a mile east of here. However, pine trees have been hit hard by Southern pine beetles throughout this area, leaving large patches of grey forest along the bluffs. The farther you continue east on this trail, the more fallen branches you'll encounter. At times, the fallen branches completely choke the trail for 20-30 yards at a stretch. We hiked as far as Dick Gap Falls. Here the trail dips into a verdant little valley filled with ferns. The trail slips back to a small bluff, where the trails curves underneath an overhang. Here is where Dick Gap Falls tumbles over the lip for a meager 15 foot fall to the stream at the base. Not much as falls go, and it's no doubt only a wet-weather waterfall, but it's very scenic nonetheless.

Strangely, when we reached SERA and I mentioned Big South Fork, none of the cavers that I talked to from Tennessee, Virginia, or Kentucky said they'd visited this park, although they all knew about it and said they planned to visit it. Accordingly, on our visit, the parking lot at Blue Heron was practically empty and we encountered very few people on the trails. So if you desire some isolation away from the masses, Big South Fork is a great destination.

Top left: Open air exhibits help tell the story of Blue Heron mining camp at Big South Fork (photo by Bill Gee). **Top middle:** Big South Fork River runs through rapids at the bottom of a steep valley valley (photo by Bill Gee). **Top right:** Crack in the Rocks is an impressive break in a sandstone bluff above Blue Heron (photo by Bill Gee). **Left:** Mining equipment at the entrance of Blue Heron Mine (photo by Bill Gee). **Above:** The remains of a coal car sit disintegrating alongside the trail at Blue Heron (photo by Jeff Page).

pretty much concluded you cannot get anywhere in Tennessee quickly.

Ausmus Well is on Department of Conservation land about 100 feet from a forest road. In spite of the remoteness, it has been heavily trashed out. Our guide rigged the pit and I went down first. The pit itself is formed from three or four domes whose separating walls collapsed. There are almost no formations. At the bottom is a large tree branch that can poke you rather badly if you don't watch out. Once I landed on the debris pile, it was another 30 feet down to the real bottom of the pit.

As advertised, the pit is loaded with trash. I saw an old washing machine, a tire, numerous bottles and cans and much other stuff. The bottom of the pit is rather treacherous to move around on because of the fallen tree branches. There is no cave at the bottom. The lowest point has a trickle of water feeding a small pool maybe 3 or 4 feet across and a few inches deep.



Because there were 9 of us, it took a while to get everyone down and back up. On the way back to the campground, we stopped at an overlook on Clinch Mountain. Looking south you can see several dozen miles of Cumberland Lake. We got back to the scout camp in late afternoon, too late to do anything more. We hooked up with Bil and Sherry Davis from Atlanta and decided to do a trip to Rattler Cave the next day.

Vendor's Row was well populated. Howie's Harnesses, On Rope, and Inner Mountain Outfitters were all there. Other vendors included Speleobooks and NSS. There were a number of smaller vendors. One of the most popular was the Munchie Stand, a little burger shack operating out of a small trailer.

Saturday 22 May

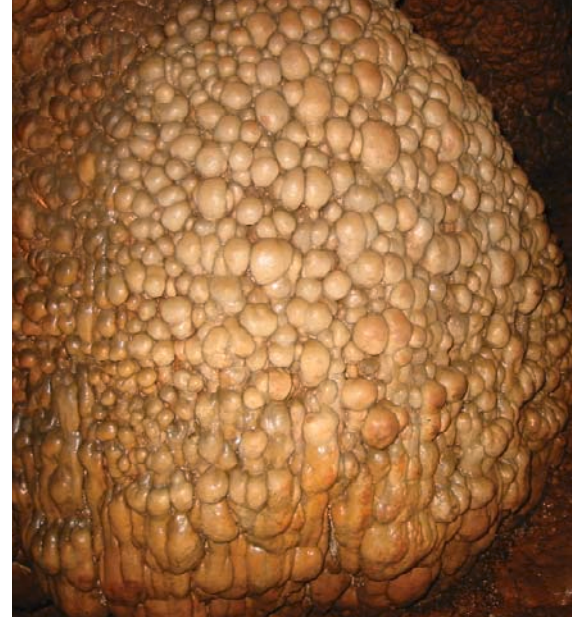
Our trip to Rattler cave left at 8:30 a.m. We wanted to be early because we figured others would want to go there. Rattler Cave is managed by SCCI and is located on the property of the city water plant for Newport, TN. When we got there we found the gates closed and locked. According to the guidebook, arrangements had been made to have the gate open for Friday and Saturday. Jeff, Bil, and Sherry went up the hill to the water plant and managed to find one person there who had a key to the gate.

We found the parking area for the cave after going too far down the hill. The hike is a few hundred feet back uphill. There are a number of good rigging trees. Bil Davis rigged the rope and I went down first. The lip was a bit interesting. About 30 feet down was a flowstone formation that you brush on the way by. Give it a tap and it rings like a bell. The rest of the 130-foot pit is a free rappel.

There was one moment of excitement while we were going in. Another group arrived and rigged their rope after we had two people down the hole. They thought their rope was longer than it was. I saw the problem and radioed back up to the surface that their rope was 30 feet short of the bottom. By that time it was too late—one of



Left (top to bottom): Jeff and Bill set up their trailers in a large open field at SERA. Vendors Row was nestled in a small clearing. A band performed near the edge of the lake. A small bonfire sat on the shore (photos by Bill Gee). **Right (top to bottom):** Descending Ausmus Well (photo by Bill Gee). The bottom of the pit is covered with trash (photo by Bill Gee). A slimy salamander in Rattler Cave (photo by Jeff Page). Formations in Rattler Cave (photo by Jeff Page).



Left: Formations in Rattler Cave seem to indicate the water level was once much higher (photo by Jeff Page). **Above:** A large formation in Rattler Cave was encrusted with nodules that resembled bubble wrap (photo by Jeff Page). **Below left:** A tight crawl led to more passage in Rattler Cave (photo by Jeff Page).



their people was on rope! Fortunately he was not far down and he heard my shouts. He did a change-over and climbed back up. There was a knot in the bottom of the rope, so he would have been OK.

After the six of us were down, we went exploring the cave. There is about 2000 feet of cave at the bottom. It is a three-dimensional maze cave with passages on top of passages and multiple ways to get to most places. We found one little hole that only Bil and Sherry could get through. I tried it and

might have made it, but did not feel like putting out the effort.

The cave is loaded with formations. Everywhere you look there are flowstone draperies on the walls. The walls are 30 to 50 feet high in some places, and the flowstone is floor to ceiling. There is some trash at the bottom of the pit, but it's not nearly as bad as Ausmus. We looked around for a couple of hours, and then went back to the pit to start climbing up.

While we were looking around several other groups came and went. None of them

did any caving at the bottom. They just bounced the pit. Heck of a deal to drive an hour each way then just bounce it! One guy came down wearing nothing but boots and a pair of bicycle shorts! We were all out of the cave and packed up by about 2:00 p.m..

Back at the campground, we lounged for a while, and then went over to Vendors Row and spent more money. The door prizes were supposed to start at 7:30. They actually got going around 8:00 p.m.. 45 minutes of that, and then the bonfire was lit and the band started to play. The band was not all that good and they had the sound turned up too loud. I did not stick around long.

Sunday 23 May

I got up early and got a cave pack together for a long trip in Cuyler Cave. The meet up time was 9:00 a.m. at the cave information booth. I was there at 8:50. One other person was there. We waited around for over an hour, but neither the guide nor any of the other people on the sign-up sheet showed up. At 10:10 we finally gave up. I had planned to stay at the Boy Scout camp overnight, but that no longer made sense if I did not have something to do.

I packed up the camper and hit the road about 11:00 a.m.. I drove until about 6pm, stopping for the night at a KOA in southern Illinois. It was a nice campground but only a hundred feet from the Interstate. The next morning I left early and drove the rest of the way home, arriving about 1:30 in the afternoon. ●

SERA 2004

Horizontal Caving at SERA

trip report by Gary
Johnson • photos by
Rickey Shortt

In the weeks leading up to SERA, I had practiced rappelling and frogging on several weekends. I'm relatively new to vertical caving and had thus far only done two in-cave rappels and had only frogged at a practice tower and at a small bluff in the 30-40 foot range. At SERA, the pit depths averaged around 150 feet; I didn't think I had any business attempting pits in that range. So I opted for visiting a trio of horizontal caves instead: Gap Cave, Willet Cave, and English Cave.

Gap Cave

As its name indicates, Gap Cave is located at a gap. In this case, though, that gap is one of the most famous gaps in the world—Cumberland Gap. So the cave has been close to major traffic routes for well over 200 years and subject to much abuse. However, the National Park system acquired the property in 1990, and since then major restoration and surveying efforts have taken place at Gap Cave. Now, the cave has made an impressive comeback.

The famous Cumberland Gap Trail passed within a stone's throw of the cave entrance. In fact, the trail that now leads to the cave entrance heads up a stretch of the Cumberland Gap Trail once occupied by a major highway. But now the highway traffic has been diverted to a tunnel system that pierces Cumberland Mountain, and as a result, the old asphalt highway has been removed, allowing the landscape to make

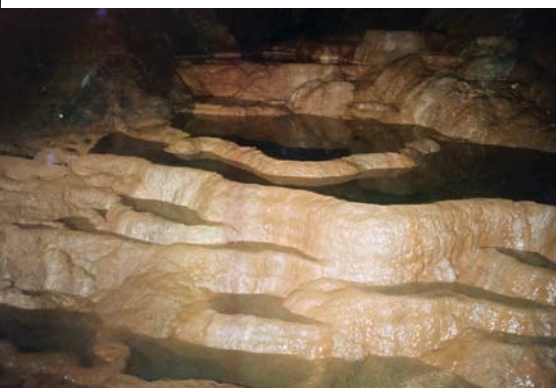


some movements toward recovery. A visitors center has been built near the cave entrance and short cave tours are now led along concrete paths through the first quarter mile of the cave. The cave has been a tourist attraction for many decades, when it was shown commercially by past owners under the name Cudjo's Cave. (This name derived from the title of a popular 19th Century book written by J.T. Trowbridge.) However, past owners were primarily interested in exploiting the cave for short-term profits, so they weren't particularly interested in maintaining the natural environment. Burned out light bulbs, for example, from the cave's extensive lighting system were typically tossed into crannies out of sight of the tourist trails. Over the past decade, volunteers have spent many hours cleaning up the cave and restoring formations. As a result, the cave's natural wonders—which are many—can once again be appreciated.

Everyone who signed up for the SERA trip into Gap Cave was required to first arrive at the CRF office at Lincoln Memorial University for a brief overview of cave regulations and to sign visitor applications. Mike Crockett of CRF gave us a quick description of what we'd be seeing in



Top: A column in Gap Cave (photo by Rickey Shortt). **Top right:** The entrance of Gap Cave (photo by Rickey Shortt). **Right middle:** A Coca-Cola bottle covered in calcite sits on a stalagmite in Gap Cave (photo by Rickey Shortt). **Right:** This graffiti in Gap Cave dates to the Civil War (photo by Rickey Shortt).



the cave and pointed out the route we'd be taking on a large-scale map. The CRF has been conducting survey efforts in the cave for several years now and thus far have recorded over 5 miles of cave.

Cheryl Pratt led the trip and Mike Crockett joined the trip when it looked like we had room for another person. After introductions were completed and the paperwork was signed, we drove to the cave and got dressed in the parking lot outside the visitors center. Then we headed up the trail to the cave entrance. The trail is steep but it's paved and relatively short; it leads to a small iron door on the hillside.

The cave has at least three entrances: a lower stream entrance, a mid-level entrance, and an upper level entrance. The upper entrance originally gave access to a separate cave, but blasting opened a connecting route between the two caves. We entered

Top left: The ceiling of Gap Cave (photo by Rickey Shortt). **Top right:** The entrance of Willet Cave (photo by Rickey Shortt). **Above:** Rimstone dams in Gap Cave (photo by Rickey Shortt).

the mid-level entrance, which for the first couple hundred yards follows concrete paths with iron railings. This section of the cave is highly decorated, with numerous stalagmites and columns. Eventually, we left the tourist trail and ventured deeper into the cave.

One of the first off-trail rooms that we visited had a 30-foot-high ceiling; it contained a large pile of breakdown rubble. Some formations poked up through the rubble, and sitting on top of a small stalagmite was an old Coca Cola bottle. The outside of the bottle was coated with calcite, turning the bottle into a permanent part of the cave. Water dripping from the ceiling filled the bottle and overflowed down its sides. I'm not usually too crazy about seeing trash left behind in caves, but this was sort of cool. Cheryl took photos of each trip participant posed beside the Coke bottle.

Next, we inspected some graffiti on a clay shelf that reportedly dated back to the civil war. This graffiti represented civil war canons, soldiers, rifles, and other war-related images.

Most of the route deeper into the cave was walking passage, but we occasionally had to crawl for small distances. Unlike, Ozark caves where the rock layers are fairly horizontal, here the rock layers had been tipped at a sharp angle. So the ceiling was never strictly horizontal. It was always slanted.

Along the way, we passed a huge mass of flowstone called Yellow Mountain and at the turnaround point we reached a series of large rimstone dams. A stream runs through

much of this cave; the water is clear and relatively free of impurities. Lincoln Memorial University, which turned over management of the cave to the National Park Service, has maintained rights to the water. At one point during the trip, we journeyed down to stream level where the water pools. Here we saw concrete foundations and water pipes used to convey the water to the campus's filtration/processing facilities.

Overall, this was an excellent trip. Thank you Cheryl for leading the trip. Thank you Mike for lending your knowledge of the cave.

Willet Cave

For my second day of SERA caving, I was hoping I wouldn't have to drive far. Cumberland Gap and Gap Cave were over 40 miles north of the SERA event. But once again, I found myself on a trip north, nearly as far as Gap Cave. Jim Wilson led this trip. He's a 50s-ish caver from this area who had recently conducted surveying efforts in Willet Cave. He learned about the cave after talking to a waitress at a nearby restaurant. He subsequently got permission from the landowner to enter the cave. The cave was apparently not known by cavers and thus had not been mapped. So he decided to conduct the surveying and mapping efforts himself.

Jim led the way to the cave. I rode with Rickey Shortt, who I'd met on the Gap Cave trip. Altogether we had a fairly large party of 11. We headed into a deep hollow. At one point, Jim stopped to point out to everyone a drainage system beside the road,



where water from a subterranean system tended to flood the road during heavy rains. (Or at least that's my best recollection of what he was pointing out.) We got permission from a landowner to park across the road from the cave. Then we suited up and headed through the thick weeds to the cave entrance. Luckily, the cave was only a stone's throw from the road.

Concrete foundations near the cave entrance seemed to indicate that the cave had been used for some purpose in the past, but Jim wasn't sure for what. There wasn't a cave stream and Jim hadn't found any evidence that the cave had been mined. The entrance to Willet Cave is buried in vegetation and tree cover although it's only 50 yards from a gravel road. The cave is likely visible during leaf-off, but in May, the entrance was difficult to see from the road.

The entrance was about 8 feet high and 10 wide. The passage seemed to be a phreatic tube that was now dry and deteriorating. The main passage is filled with minor formations, small stalactites, stalagmites, flowstone, and helectites. The floor and walls were very irregular from the extensive breakdown and deterioration of the passage, most likely a good example of what happens to a phreatic passage once it's abandoned by a stream passage and speleothem development follows (bringing without it slow destruction of the cave passage).

The main passage ends after only about 500 feet in a massive collapse that chokes off the entire passage. More cave passage likely exists on the other side of the breakdown for anyone interested in digging through several dozen cubic yards of dirt, clay, and limestone.

At the end of the main passage, you'll find a small pit on the left side and if you climb down into this pit and through the breakdown, you'll find a lower level. This level begins in a nicely decorated small room with numerous speleothems, some of them snow white. From this room, a tubular passage heads back further into the hill another 200 feet. This passage isn't as richly decorated as the main passage. It requires crawling and ends in a small room choked off by breakdown.

I looked through the breakdown and thought it looked like the ceiling might extend up beyond the breakdown. I pointed this out to Jim and he didn't think anyone had actually crawled back there. So I decided to make this short bellycrawl forward for a dozen feet. "I'll die if you find more passage back there," said Jim. I pulled myself over the breakdown and craned my neck up to look for ceiling space, but I only saw rock. So Jim was right. The passage did indeed end here.

Thanks Jim for leading the trip.

English Cave

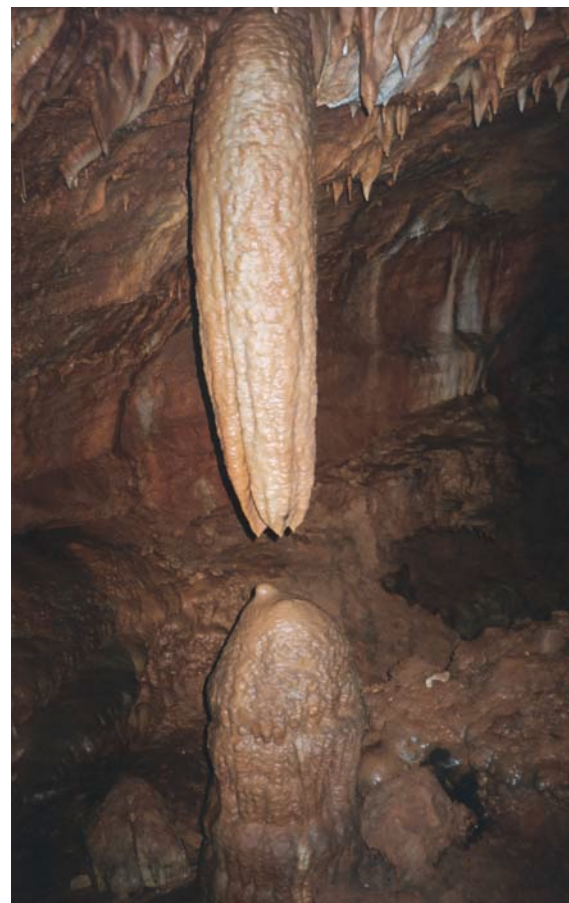
The Willet Cave trip only required a couple hours so we had plenty of time for more caving. Rickey Shortt knew of another SERA cave in the vicinity, English Cave, and he had directions to the entrance, which he confirmed with Jim Wilson, who knew the cave's location. English Cave was less than 5 miles away. So we found some other

Top: Flowstone covers many of the walls in Willet Cave (photo by Ricket Shortt). **Right:** A stalactite-stalagmite pair in Willet Cave (photo by Ricket Shortt).

members of the Willet group who were interested in doing more caving and then we set out.

We found the parking area for English only 10 minutes after leaving Willet Cave. Two other cars were already parked there, and people were struggling to put on their cave gear. They made way for us. The SERA guidebook warned everyone to not park outside the parking area. Rickey and I pulled on our muddy cave clothes again and headed down the road to the cave.

Not far down the dirt road, we encountered a 60s-ish man driving his pickup. His eyes were tight holes, and when he looked at us, I felt like someone was jabbing me with an icepick. We tried to be friendly. But he wasn't interested in pleasantries. We explained we were going to visit the cave. He nodded, indicating he was familiar with the cave. I asked if he was the landowner. He shook his head and said he owned property further down the road. "How much they charge you?" he asked. We explained there wasn't any "charge" for seeing the cave. He pursed his lips and nodded. Rickey and I continued to stand beside his truck. "Yeah, people go in that cave all the time," he said flatly. He wouldn't look at us and he wouldn't drive away. We didn't know what to do. The man was clearly disturbed that we were here. But he wasn't the landowner. What should we do? I suspect he didn't believe us when we said no one was



charging us for seeing the cave. I suspect he believed someone was making money off the cave, and people such as he were getting stiffed. I could feel his anger. We tried to find something to say that would ease his concerns, but we didn't find the words. He continued to look straight ahead through his windshield. Finally, he let up the brake and his truck slowly started to move forward. He looked us over one last time, and then without saying a word, he drove away.

This was a sad confrontation. It's an indication of the gulf that sometimes exists between landowners and cavers. For the rest of the afternoon, Rickey and I nervously joked about what we would find when we returned to his car. Would all the tires be flat? Would the windows be smashed?

We hurried down the hill and caught up with the cavers in front of us. We found out they were from New York. They were a bit confused about where the cave was and were heading back up the road, so they followed us down the hill to the mouth of the cave.

The cave entrance is about 5 feet high and 8 feet wide. We had to duck under a small tree that had fallen across the entrance. Once inside, we found the cave opened up to walking height. The entrance passage was a tube with many columns, stalagmites, and stalactites, which start in earnest within 50 feet of the entrance and continue down the entrance passage. This passage intersected a large canyon.

At the intersection of these two passages are the largest formations in the cave—huge stalagmites and columns several feet thick. This canyon passage seemed to be a phreatic tube that had been modified by subsequent water into a canyon with a 20-foot-high ceiling. The walls of the cave were frequently completely covered with flowstone for over a hundred feet at a stretch.

At some point in the distant past, English Cave had been a commercial cave. The remnants of numerous wooden bridges and walkways were still discernible, but all the wooden fragments were blackened as if someone had attempted to obliterate them with fire. We found no concrete or iron, so I'm guessing the commercial enterprise here must have dated to the early 1900s.

Because the passage is so large, and because the vast majority of the cave can be visited without any crawling, the cave attracts many visitors, as we witnessed on this day. We counted at least five groups in the cave (where had they all parked their cars?). Rickey and I left the slower moving group from New York behind and forged ahead on our own. Large mounds of clay and dirt presented the main challenge, forcing cavers to constantly scramble up and down. The passage height and width stayed fairly consistent with only a couple exceptions, as when we encountered a large room where the main passage meandered to the right.

Eventually the passage turned into a tall canyon passage with 30-foot-high vertical sides and a chert rubble floor. The cave continued like this for at least 1,000 feet before the passage turned to the left, at which point the passage became a tube. We followed for a couple hundred feet, but the tube kept getting more and more muddy with little relief in sight, so we soon gave up and returned to the walking passage.

Altogether I estimate we had followed about 3,000 total feet of passage in English Cave.

On our return to the entrance we found photographers set up in the highly decorated room where the entrance passage intersected the main passage. We walked past the photographers and followed the main passage beyond the entrance passage. The description of English Cave in the SERA guide book led us to believe the cave continued in this direction for several hundred feet, but the passage size quickly dropped to crawling height, with sticky red clay forming the floor. We mucked through this stuff for a hundred feet before we decided we'd seen enough and turned around.

The half-mile walk back up the hill to Rickey's car was a real cardiovascular workout. On the way, we heard numerous gun shots. I envisioned the property owner we had encountered earlier, now with a shotgun in his hands, laying siege on the parked cars. But when we reached the parking area, all the cars were fine. It was apparently just the sound of someone nearby practicing shooting. We shed our cave suits a little quicker than normal, got back in our civvies, and hit the road.

Thank you Rickey Shortt for allowing us to use your photos. ●



Top: Crystals cover many of the walls in English Cave (photo by Ricket Shortt). **Middle:** Splash cups in English Cave (photo by Ricket Shortt). **Right:** A column in English Cave (photo by Ricket Shortt).

Spring 2004 SERA

Waterfalls & Natural Arches of Kentucky and Tennessee

trip report and
photos by
Gary Johnson



In planning the drive to SERA, I was drawn to many natural features of the Cumberland Plateau. The Cumberland Plateau is a flat-topped region covered with thin soils. It's largely made of sandstone that has been crosscut by numerous streams, creating a rugged and daunting terrain of deep canyons. Farmers have attempted to eck out a living here, the most famous being Alvin York, who was immortalized in the movie *Sergeant York* with Gary Cooper in the lead. But it's a tough land for farmers to call home.

The SERA location was just to the east of the Cumberland escarpment, in a natural trough between the plateau and the Appalachian Mountains. Great Smoky Mountains National Park was only 30 miles away from the SERA campground. So I planned for some post-SERA hiking.

Above: The final drop at Burgess Falls is a stunning cascade over sandstone (photo by Gary Johnson).

Here is a quick rundown of the waterfalls and natural arches that I visited on the Cumberland Plateau and in Great Smoky Mountains National Park.

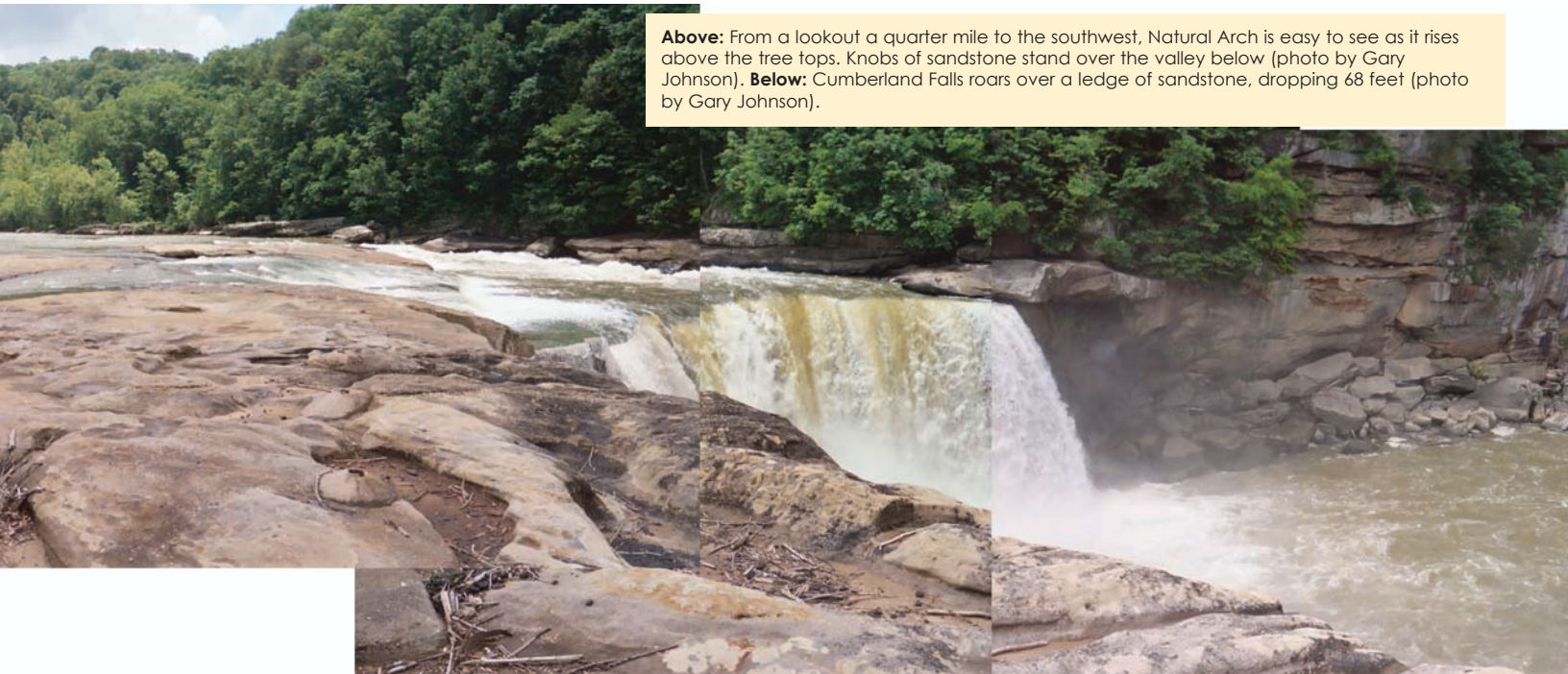
Natural Arch, Kentucky

Just west of Hwy. 27, in southern Kentucky, Natural Arch looks like it belongs in Utah or Arizona. It's a huge, reddish-brown sandstone arch, over 100 feet wide and 60 feet high. You can see the arch from over a half mile away. A short path from the trailhead parking lot leads to a lookout from which you can see several undulating bald knobs of sandstone in a wide valley. Water and wind activity has slowly worn down the sandstone layer until just the knobs remain, with straggly trees

clinging to the steep sides. The arch is clearly visible from this lookout as it rises above the tree tops. The trail to the arch leads to a small sandstone bluff and then drops into a valley. It's an easy hike and can be attempted by just about anyone who can still put one foot in front of the other. The trail leads straight to the arch, which is one of the most scenic arches you're likely to find anywhere. The arch is thick, over 50 feet thick at the apex. It's a powerful but graceful, almost muscular, arc of red rock. A jumble of breakdown has tumbled to the far side of the arch into a depression, so the breakdown doesn't detract from the arch's beauty. When I was there, I found a wooden fence had been erected at the base of the arch and paper signs had been placed to discourage



Above: From a lookout a quarter mile to the southwest, Natural Arch is easy to see as it rises above the tree tops. Knobs of sandstone stand over the valley below (photo by Gary Johnson). **Below:** Cumberland Falls roars over a ledge of sandstone, dropping 68 feet (photo by Gary Johnson).



visitors from entering the area further. The signs indicated the land was held sacred by Indians and threatened legal action if anyone trespassed. However, when I was there, the paper signs lay in pieces on the ground, and they had clearly been on the ground for many months. So no one seems to have been monitoring the site for Indian causes. Strangely, though, the signs said a surveillance system was being used. But that's hardly credible. If you plan to visit Natural Arch, plan to bring several spare dollar bills. There is a day-use fee of \$7 that must be deposited in an envelope at the entrance to the parking area.

Cumberland Falls

Going to Cumberland Falls was a last minute decision. I had originally ruled out going there because it would take too long, but after visiting Natural Arch I checked my watch and saw I was doing pretty well on time. I ventured east of Hwy. 27 on a winding road to

visit this touristy sight. A tourist center is set up beside the falls and a large asphalt parking lot makes it easy for everyone to get as close to the falls as possible before beginning to walk. Unlike the other sites I was visiting, I hadn't spent much time reading about these hiking trails, and here's good reason to always go prepared: as I pulled in Cumberland Falls State Park, I noticed three cars parked on the side of the road before the bridge that takes you across the Cumberland River and into the state park's parking lot. I wondered why people were parking there. Well, later that evening as I read about the hiking trails in the vicinity of Cumberland Falls, I learned the cars were parked at the best hiking trail in the area, which takes you up high above the falls on a bluff that provides some astonishing vistas. Without this knowledge, I plunged into the wide asphalt and concrete paths on the river's north side. These paths are wheelchair accessible. Fences protect visitors from getting too close to the bluffs. The Cumberland River is known as the

Niagara of the South, an apt description (although Cumberland Falls is only a fraction of the size of Niagara Falls). The Cumberland River is wide at this point, over a hundred yards. It flows over a bedrock of sandstone to the edge of the bluff and then tumbles over in a wide greenish-yellow curtain of water that drops for 68 feet. I hiked far downstream to where the trail peetered out at a sandy beach. Unfortunately, the Cumberland River must carry a heavy volume of pollution for the beach was strewn with heaps of rotting trash, dead fish, and plastic bottles. At one time the beach would have been a great place to campout before a float trip, but now it looks like a toxic waste dump.

Yahoo Falls and Arch

Heading further south along Hwy. 27, I closed in on Big South Fork National River and Recreation Area, but I had one more stop before I reached the campsite at Blue Heron—



Yahoo Falls and Arch. This is a marvelously scenic area at the very north edge of Big South Fork. The trailhead is located in an old defunct campground. You can still see the various campsites, but they've been allowed to go to seed. Maybe the campground was being underutilized and the national park system decided to discontinue maintenance. Whatever the case, you can park near the restroom (which is still maintained, well, sort of). The trail is fairly level as it curls along the edge of a bluff. An overlook provides a nice view over the Big South Fork River. Then the trail forks and provides you with a choice—either go left down an iron stairway to the bottom of the bluff into a beautiful verdant valley lined with ferns and pine trees or head right and stay high as you visit the falls from above. I took the low road, saving the high road for the way back. The stairs descend nearly 100 feet. A stream tumbles over rocks at the bottom of valley. The bluff that I just descended was split and broken. Large sandstone boulders sat on the right as I headed up the stream to the falls. This is an incredibly verdant valley. The trail leads right to the falls. Yahoo Falls drops 113 feet to a small pool at the base, cascading over small moss-covered boulders. The base of the waterfall is undercut by at least 100 feet, forming a large shelter cave with heaps of breakdown rubble. The trail continues to follow the bluff beyond the waterfall. I followed the trail in and out of small hollows. The bluff had almost peetered out entirely by the time I reached my goal, a natural arch. At this point, the trail entered an incredible area. The trail curled to the left, with a large deep shelter cave on the right extending far into the

bluff. The floor of the shelter cave was composed of medium-sized breakdown blocks.

Past the cave entrance a mass of brownish-red rock arches over the trail. This is nothing like the graceful arch at Natural Arch. This is a double arch complex that resulted from a sink hole collapse. There is a second shelter cave up above the arch on the right. While Natural Arch looked like it belonged in the American Southwest, Yahoo Arch looks like a medieval battleground. There's nothing graceful about it. It's heavy and blunt and flat and ominous, the kind of place that might acquire a moniker that invokes the Devil (The Devil's Kitchen, the Devil's Playground, etc.) . The arch is about 15 feet high and 60 feet wide. On the route back to the trailhead, I followed the trail past the top of Yahoo Falls where two nice overlooks provide a good perspectives on the falls.

Ramsay Cascades

After SERA, I decided to extend my vacation a couple more days by visiting Great Smoky Mountains National Park and doing some hiking. Originally, I wanted to backpack part of the Appalachian Trail, but two days of caving at SERA left me somewhat tired. I decided to tackle the less strenuous Ramsay Cascade trail. While this trail is no doubt much less strenuous than any of the connector routes that lead up to the Appalachian Trail, Ramsay Cascades is not an easy hike and it should only be attempted by people in good physical shape. The trail climbs steadily for 5 miles, rising over 2,500 feet in the process. Along the way, the trail follows a stream that rushes over and around large limestone or dolomite boulders in the streambed. The first two miles isn't bad at all. The gradient is easy. The park service has even



Top left: Natural Arch is a massive arch of sandstone (photo by Gary Johnson). **Above:** Yahoo Falls drops in a verdant valley (photo by Gary Johnson).

created small wooden benches every half mile or so. But after the trail reaches a turnaround point for four-wheel-drive vehicles, the character of the trail changes entirely. First the trail begins to climb through a thicket of trees. You climb up and over tree roots and boulders. I kept expecting the trail would level out, but it doesn't. This is how it goes for the next 3 miles. The trails hugs close to the stream, crossing on



Above: The Great Smoky Mountains at sunset (photo by Gary Johnson). **Left:** The 5-mile long trail to Ramsay Cascades is definitely worth the climb (photo by Gary Johnson).



two occasions on bridges made of single logs that reached all the way across the stream, 30 feet or more. There are no lookouts along the way. You're deep in a valley, typically shrouded in shadow, so it's nice and cool for the most part. At one point, the trail drops to the stream bank. I found several large salamanders hiding in the tree roots. The trail continues to make its climb, and eventually it veers left away from the creek. At this point, you're very close to the falls. This is the only extended stretch of the trail where you're out of sight of the stream. The trail curls through some large boulders and curves back to the right. Now you can hear the roar of the falls. You climb over some more large boulders and then the mist hits you. It might feel good on a hot summer day, but on this day the temperature was around 50. So the mist and a constant blast of wind made standing at the base of the falls downright chilly. This is one of the prettiest waterfalls that I've seen. As the name implies it's a cascade that drops about 90 feet. The water splashes across multiple layers of limestone/dolomite, with the droplets splashing in every direction. The pool at the base is several feet deep. I sat on a huge boulder at the base of the fall and ate my lunch, huddled under my windbreaker, and took a half hour to soak in the sights. Then I retraced my steps back to the trailhead. It's a dead end trail so you hike back the way you came.

Ozone Falls

On the drive home, I decided to make two stops along the way. The first was Ozone Falls, which is only a few minutes south of Interstate 40. The waterfall here is located near a small town named Ozone (surprise!). It's easy to get to the falls. There is a small parking near the top of the falls, immediately off of Highway 70. Trails head in two directions. The



less adventurous can take the high trail and experience the falls from the top of the bluff. Large layers of sandstone are exposed here. You walk over sandstone to the top of the falls, which takes one of the deepest plunges in the state of Tennessee at 110 feet. The sandstone is stable right to the brink of the bluff, so you can get very close to the edge and peek over. But be careful, especially with kids. There is no fence. The view is remarkable. You can see far down the hollow as the water from the falls continues through numerous additional pools. For the more adventurous, a second trail follows Hwy. 70 to the west, beside a rock wall, for a 100 feet and then slips down sharply to the left. The trail swings beside an exposed bluff face, which is pretty impressive in its own right, and then heads down over tree roots, fallen logs, and a jumble of sandstone boulders. The steep trail is relatively short: before you know it, you're standing near the base of the falls. The stream is fairly narrow as it goes over the top of the bluff, so the waterfall makes a sharp, precise fall before cutting into the pool at its base. Large sandstone boulders sit just downstream from the pool. The stream weaves past these boulders to more pools, which kids were swimming in when I visited.

Burgess Falls

My next and final stop was Burgess Falls. These waterfalls are in a state natural area, which means there is a day-use fee. Bring along some single dollar bills so you can stuff the fee into a slot. It took a little longer to get to Burgess Falls than I expected from I-40, but it

was a nice little side trip through the rural landscape to a large asphalt parking lot with spaces for a couple dozen cars. Falling Water River flows north of the parking lot, just beyond a short fringe of pine trees. An old dam sits 200 yards upriver. Water drops over the concrete dam, which is about 25 feet high and flows to the left. Not far downriver a series of three waterfalls begins. The first two waterfalls are just a few feet high each. Water churns at their bases. The river is wide and the flow of water is strong, although the river depth when I was there was only a foot or two deep. A trail goes through the thick woods on the left. The trail is easy to follow, but eventually you'll start seeing several spurs. I'm not sure where they led. I stuck to the main trail which eventually ends at a lookout. From here you can see Burgess Falls. The entire floor of the valley drops away at this point as the river plunges over a bluff. Here, the river is about 50 feet wide. It slides over sandstone and falls as a wide curtain over a rounded section of bluff to the breakdown and pool below—a drop of 130 feet. This is one of the prettiest waterfalls I've ever seen. The setting is quite impressive. Sandstone bluffs rise on the far bluff at least 200 feet above the base of the falls. I wanted to get a closer look, so I climbed down a ladder and stairway on the near bluff to the top of the waterfall. The stairway is sturdy and made of iron. A platform allows you access to the top of the falls, and then the stairs descend further to a dirt trail that leads away from the stairs onto a large mound directly across from Burgess Falls. I wanted a closer look yet, so I

Top left: On the way to Ramsay Cascades, the trail crosses a swiftly flowing stream on log bridges such as this one (photo by Gary Johnson). **Middle:** A view from one of the bridges at Ramsay Cascades Trail (photo by Gary Johnson). **Above:** At 110 feet, Ozone Falls is one of the tallest waterfalls in the state of Tennessee (photo by Gary Johnson).

followed a faint trail down to the rubble at the base of the mound. Hear the roar of the waterfall was very impressive. From this perspective the waterfall seems to be coming over the top of a tall spire of rock. This is a very impressive place to watch the waterfall. You can stand directly in front of the waterfall because the river bends to the left and cuts into the far bluff. This is an incredible site. Apparently many people come here to swim at the base of the waterfall. When I was walking back to my truck, I passed numerous college-age people in swimming trunks, carrying towels and headed for the stairway. ●

2nd Annual Interagency Mock Rescue at Murder Hole

report by Marion McConnell
photos by Marion McConnell
and Mike McKinney

Dan McConnell sponsored the 2nd Annual Interagency Mock Rescue at Catawba Murder Hole on October 9, 2004. He and Chuck Swecker, Roanoke Firefighter, planned the event for months. Unfortunately Chuck suffered a detached retina and due to eye surgery was unable to participate. The event also coincided with TAG weekend, which may have explained the low number of cavers who attended. However, we had quality, if not quantity. We especially appreciated the two guys who drove all the way from Kansas to be a part of the mock!

The following participated:

- Dan McConnell (Triangle Rescue/NCRC/Blue Ridge Grotto – Catawba, VA)
- Marian McConnell (Triangle Rescue/NCRC/Blue Ridge Grotto – Catawba, VA)
- Harold Chrimes (Triangle Rescue/NCRC/Roanoke County Fire & Rescue, Botetourt County, VA)
- Billy Chrimes (Triangle Rescue/NCRC/Fire & Rescue – Botetourt County, VA)
- Melissa Neal (Triangle Rescue/NCRC – Troutville, VA)
- Mike McKinney (NCRC – Olathe, Kansas)
- Glen Hugus (NCRC/Fire & Rescue – Covington, VA)
- Terry DeFraties (NCRC – Kansas City, MO)
- Mendy Mays (Catawba, VA)
- Ray McConnell (Chesapeake, VA)
- Barron Collier (VPI/Search & Rescue – Blacksburg, VA)
- Josh Burkheimer (VPI/Search & Rescue – Blacksburg, VA)
- Carl Amundson (NCRC – Berryville, VA)
- Will O'Brien, Jr. (Lexington, VA)*
- Trish Geiger (Blue Ridge Grotto)*
- Susan Burr (Blue Ridge Grotto)*

*Observers

Top right: Mike McKinney checks the rigging at Murder Hole (photo by Marion McConnell). **Above right:** Terry DeFraties talks about gear to another participant at Murder Hole (photo by Mike McKinney). **Far right:** Rope, rope, and more rope at Murder Hole (photo by Mike McKinney).



Harold Chrimes was in charge above ground. He supervised the building of the English Reeves track line over the pit. Glen and Carl assisted with construction of the track line until Harold didn't need their help anymore; then they joined the underground team. Billy and Melissa helped Harold put the finishing touches on the track line system. Mendy Mays was in charge of entrance control, personnel and paperwork. Dan's brother, Ray, took lots of pictures topside. Eight of us rappelled off the big drop (108')—Dan, Mike, Terry, Barron, Glen, Josh, Carl, and me. Barron and Josh were new to caving, and had limited experience rappelling. We checked each other for safety—in fact I caught Dan going over the lip without his helmet (he had his hat on...!) I caught Barron going down

without an ascender. Terry also stopped Barron from going over the edge because his harness wasn't backed up through the buckle. The point is that no matter how experienced (or inexperienced) you are—everyone should be checked and double-checked!

We were in the cave by noon, and I had a chance to do a quick little talk with Josh and Barron about cave safety and conservation. We all rappelled down the

Ski Slope, and put the sked in Popcorn Palace. Since there were only 8 of us, we decided to use our packs as the patient. We had enough packs and gear to simulate the actual weight of a smallish caver. Barron, Carl, Josh and I went into Popcorn Palace through the Nutcracker and “packaged” the patient. Dan, Glen, Mike, and Terry rigged a line to a stemple at the top near the Sanctuary Room. We hauled up the patient—which we dubbed “Rocky”—using a 2:1 advantage system with separate belay. Then we used lap passes and other horizontal patient movement techniques to work him to the bottom of the Ski Slope. Dan had rigged a traveling haul system, with a belay line to the sked, and to Glen who served as litter tender. Mike traveled ahead of the sked to reset the traveling haul. It worked like a charm! I took Josh and Barron out Fat Man’s and we met the rest of the guys at the Screwhole in time to help get Rocky out. The Screwhole was much easier than taking Chris Heptinstall out Fat Man’s last year. (Dan has seen the video many times and still thinks it can’t be done! But it was.)

By this time, Harold, Billy, and Melissa had tested the track line. Rocky was packaged in the Ferno and we all climbed up the talus slope to be on the haul team. Rocky was out by 3:17 p.m.—about 3½ hours to get our patient to the road. During Rescue Challenge 2 years ago, HTR (Heavy & Tactical Rescue) teams were given 4 hours to perform the same task and get their patient out of the Screwhole to daylight. They did not have to build a track line over the pit. Only 1 HTR team out of 10 got their patient out of the Screwhole in the allotted time. The HTR team that was successful was the Roanoke Valley team. At last year’s Mock it took about 6 hours to get the patient from the bottom of the Ski Slope to the road. Every exercise is a great learning experience! We celebrated with dinner at the Homeplace and a good soak in the hot tub! We hope to see more of you next year! ●



Above: Rigging the drop at Murder Hole (photo by Mike McKinney). **Below:** The sinkhole entrance of Murder Hole (photo by Mike McKinney). **Right:** Hauling out a litter loaded with packs and gear from Murder Hole (photo by Marion McConnell).



NCRC Training Cavers Rescue Cavers

article and photos by
Mike McKinney



It's an old adage and all too true. Is caving dangerous? Statistically you are in greater danger driving to or back from a cave trip than you are while caving. I usually explain it this way: it's like scuba diving. With the proper equipment and training, the risks are pretty manageable. Yet, when you are underground, like being underwater, a little problem can become a big problem ... only there are no "emergency ascents" in caving.

I thought I was a cautious and safety-conscious caver to start with, but once I experienced what it would take to rescue someone out of a cave, I thought different. I became far more aware of what I was doing, and what others were doing too. I became empowered—by the experience of carrying a 200 lb. person for hours over rugged terrain where I couldn't see where I was stepping and hardened by the sore muscles, strained back, bruised legs and every other thing that hurt—to police not only my own

actions but those of others. Knowing what it would really take made things very clear. The best rescue is a prevented rescue. Surviving the ordeal with those I'd done it with bonded me to people like never before. It was an amazing experience.

Cavers share a tight bond. We trust and depend on each other underground. If someone gets injured, cavers will come from far away to help a comrade in need. The extent that I've seen people go to in "mock" rescues has been amazing; that person was going to get out of the cave no matter what it took.

The training available thru the NCRC focuses on exactly that; what it takes to get it done. There is no "cook book" on how to do a cave rescue. Each one is unique. Therefore it is smart to have a

Above: NCRC participants haul a litter and "victim" up a slope (photo by Mike McKinney).
Right: A participant eyes his way through an obstacle course at NCRC training (photo by Mike McKinney).



good “tool box” of knowledge. Knowledge comes from training and experience. If you attend NCRC training, then you will get some of both.

Attending NCRC training is a lot like going to boot camp; only you are paying for the privilege. You get up early and go to class, you may have some surface training such as an obstacle course, or go to a cliff to figure out how you would raise someone up it, and you’ll actually have to do it. You’ll be shown different tools you can use to create anchors and trained in first aid and patient assessment, patient packaging, and knot tying. Then it’s time for lunch. You’ll spend a fair amount of time underground putting your new skills to the test. Then ... even more. Your day is packed, fast-paced, rigorous and demanding. You need to complete a list of skills by the end of the week and be checked off as doing them correctly by an instructor. After dinner, it’s off to work on your skills and check offs, study time, and a little social time late at night before you get up early again. The people you meet and the friendships forged come with a lifetime guarantee. By the end of a week, everyone there will become a solid team. It’s real; it’s hard; but it’s fun.

The next National NCRC Training is June 25 - July 2 in Somerville, Alabama. This is right in the heart of TAG country. I hope to be instructing, along with Terry DeFraties. Immediately following the training is the NSS convention. I plan to stick around and do some TAG caving while I’m there. What better time than immediately after polishing up my skills? Wanna go? ●



Top: Hauling a litter and “victim” through an NCRC obstacle course (photo by Mike McKinney). **Middle:** A culvert drain serves as a cave during this practice session with a loaded litter (photo by Mike McKinney). **Right:** A rescue team extracts an injured caver caught in a crevice during a mock rescue (photo by Mike McKinney). **Far right:** The rescue team carries the litter toward the cave entrance (photo by Mike McKinney).