

The
Month's

The Kansas City Area Grotto

GUANO

Volume 17
Issue 5-6
June 2003

this month's focus

**Arkansas
Caving**

a view into Devil's Den, Buffalo National River (photo by Gary Johnson)

Events

June 16-22, 2003

Karst Field Studies at Mammoth Cave: Speleology with Roger Brucker. Cave Surveying and Cartography with Patricia Kambesis and Dr. Nicholas Crawford. For more information, contact the Center for Cave and Karst Studies at annicroft@wku.edu, visit the Center's website at caveandkarst.wku.edu or call the Center at 270-745-3252.

June 17-22, 2003

Karst Field Studies at Mammoth Cave: Karst Hydrology with Dr. William White and Dr. Nicholas Crawford. For more information, contact the Center for Cave and Karst Studies at annicroft@wku.edu, visit the Center's website at caveandkarst.wku.edu or call the Center at 270-745-3252.

June 20-22, 2003

MCKC 10th Anniversary Celebration in Meramec State Park. For more information, visit home.swbell.net/bob4mvg/mckc/celebration.htm.

June 20-23, 2003

50th Annual Cave Capers on Delaney Creek Park near Salem, Indiana, hosted by Central Indiana Grotto. For more information, e-mail Kathy Welling at kathyd@ccrct.com or visit the Capers website at www.cavecapers.com.

June 21, 2003

CRF Ozarks trip to Powder Mill Creek Cave for surveying (wetsuit required). Note: rain will cancel this trip. For more information, contact Doug Baker at doug-mel@mm2k.net.

June 21-22, 2003

Restoration project weekend at Carroll Cave. All CCC members are invited to participate. The group will be building/marketing trails and doing Restoration Inventory for the purpose of adding projects to the task list. The ladder is installed so access is not a problem. The cave is limited to 24 visitors per day, so signup is on a first-come-first-served basis. Everyone who signs up will have the opportunity to enter the cave and participate in the project. For more information or to sign up, contact Mike Hartley at hartleymike2@aol.com (yes, he has email!) or visit the CCC website at www.carrollcave.org.

June 21-28, 2003

National Cave Rescue Commission 2003 Cave Rescue Operations and Management Seminar at Camp Washington Ranch in Calsbad, New Mexico. NCRC will be offering Level 1 (team member), Level 2 (team leader) and Level 3 (specialist) training. Register before May 12th to avoid paying a late fee. For more information, contact the registrar at 2003registrar@ncrc.info or visit the seminar website at seminar2003.ncrc.info.

July 4, 2003

Annual July 4th party at Bryon Carmoney's house. The celebrations start at 4pm; bring your fireworks and your climbing gear. Theme has not been decided

yet — suggestions are welcome. Questions? Contact Bryon Carmoney directly.

July 18-20, 2003

Karstorama Event at Mount Vernon, Kentucky, sponsored by the Greater Cincinnati Grotto. Guided and self-led trips in Rockcastle County and surrounding counties will be available. For more information, contact Wayne Barton at barton@fuse.net or 513-961-5183.

July 19, 2003

CRF Ozarks trip to Powder Mill Creek Cave for surveying (wetsuit required). Note: rain will cancel this trip. For more information, contact Doug Baker at doug-mel@mm2k.net.

August 4-8, 2003

NSS Convention in Porterville, California. Regular (NSS member) admission is \$110 with a \$25 late fee after June 15. The workshops and field trips are extra, between \$15 and \$100 each. For more information, contact Peri Frantz at apfrantz@pwpconsult.com or 408-356-8506 or contact Lynn Fielding at lynn@wb6hjk.ampr.org or 310-533-8627. More information can also be found on the NSS Convention website at www.nss2003.com.

The NSS has prepared a promotional video to showcase the convention site and some local attractions. The video can be downloaded using the following link (file size: 96 MB): http://www.kcgrotto.org/nss_2003/nss_2003.zip

If you don't have a high-speed connection, please e-mail webmaster@kcgrotto.org to get a copy on CD.

August 16, 2003

CRF Ozarks trip to Powder Mill Creek Cave for surveying (wetsuit required). Note: rain will cancel this trip. For more information, contact Doug Baker at doug-mel@mm2k.net.

August 29 - September 1, 2003

Rocky Mountain Regional in the Lime Creek Area near Eagle, Colorado, hosted by the Colorado Grotto. For more information, contact Barbara R. Smith at smithbr2@juno.com or 303-948-2240 or contact Christa Schneider at waterbug38@hotmail.com or 303-432-1430. More information is also available on the Colorado Grotto website at www.caves.org/grotto/colorado/RMR_2003.htm.

September 6, 2003

CRF Ozarks trip to Powder Mill Creek Cave for surveying (wetsuit required). Note: rain will cancel this trip. For more information, contact Doug Baker at doug-mel@mm2k.net.

October 13-17, 2003

National Cave and Karst Management Symposium at the Sheraton Hotel in Gainesville, Florida. For more information, see the symposium's website at www.nckms.com.

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The Month's Guano

June 2003, Vol. 17, Issue 5-6

The Month's Guano is published on the last Wednesday of the month. Twelve issues annually.

Submit articles to editor by the last Wednesday of the month.

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

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Kansas City Area Grotto is affiliated with the National Speleological Society, The Missouri Speleological Survey, and a Founding Member of Missouri Caves & Karst Conservancy.

Meetings are held every second Wednesday at 7 p.m. (alternate site in May), Magg Hall, behind Spencer Laboratories, Volker Blvd. & Cherry, Kansas City, Missouri.

Annual Dues: \$15 for Full Members (3 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

Greetings fellow KCAGers: In the evolution of our new *The Month's Guano* format, we've made a decision to try to keep each issue on one theme. This issue, with 25 pages devoted to Arkansas caving, must be a Grotto record. There are a great deal of photos, but also a great deal of text. It reflects our Grotto's fondness of caving in Arkansas. The next issue will be devoted to the adventures of the KCAG group in New Mexico. I'm looking forward to that one, too. Meanwhile there is much to enjoy and absorb from this issue.

In previewing it, what struck me most were Gary's self revelations about dealing with his fears in the article on Gunner Cave. Gary is a novice who is gaining experience at a rapid pace.

Everyone who starts caving will soon confront situations they would never have to deal with in their day-to-day lives. Gary's article goes beyond a description of the cave. It discusses what is going on in the interior of his mind. It's rare when a caver is this forthcoming about sharing his fears. It reminded me of many things that went through my mind when I was learning from more experienced cavers.

A lot of it has to do with being a novice and simply gaining experience from one cave to the next. But there is a universal theme as well. I've always believed that to be successful in caving, people must confront their darkest fears underground. Some can never do it and they move on to other interests. It's one thing that sets caving apart from many other recreational pursuits. It's also a good lesson to trip leaders. I don't think any of us were aware of Gary's plight on the Gunner trip. It's always a good idea to ask the newer cavers how they are doing and give assurances. It could make the difference between gaining or losing a valuable fellow caver.

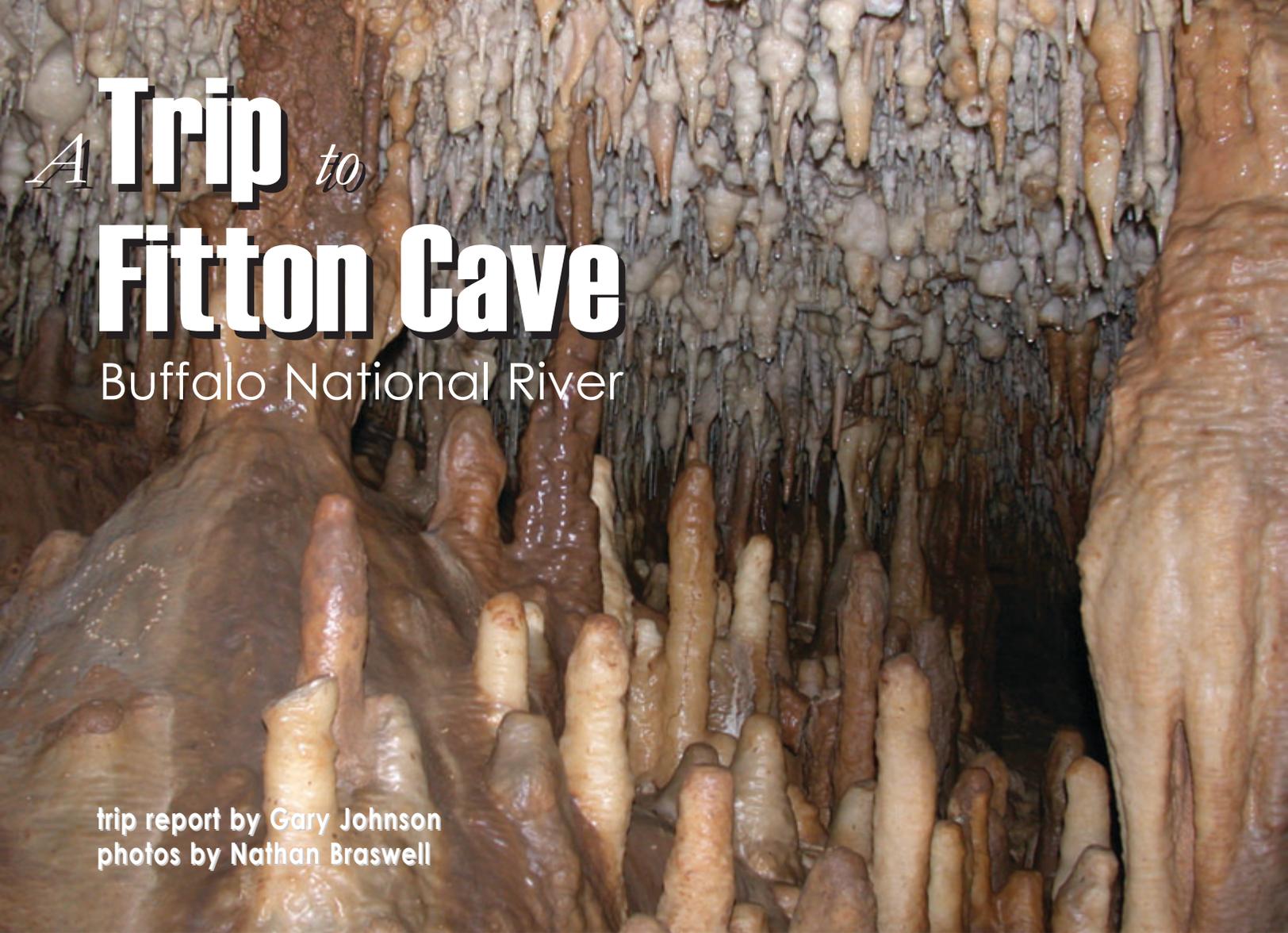


Jeff Page descends into Skull Pit (photo by Mike McKinney).

Cave softly and safely,

Jeff Page

KCAG President



A Trip to Fitton Cave

Buffalo National River

trip report by Gary Johnson
photos by Nathan Braswell

I first learned about Fitton Cave when I visited Blanchard Springs Caverns in December 2002 for a wild cave tour. I asked the guide about other caves and he told me about Fitton Cave. He had visited it several times himself and strongly recommended the cave. Unfortunately for me, however, several KCAG members had visited Fitton just a few months previously, so I didn't hold much hope of finding someone ready to return to Fitton so soon. So I started looking for Arkansas cavers who might be headed for Fitton. I found Wade Baker of the Boston Mountain Grotto. He had been in Fitton Cave several times and was planning another trip, which he allowed me to join.

Every time I go to Arkansas, I try to make the most of the time by hiking some of the magnificent trails in the Buffalo National River area. This time I decided to combine the Fitton Cave trip with a hiking trip of Hemmed In Hollow. I wanted to test my hiking ability on one of the most demanding trails in the Midwest. In May I would be venturing to New Mexico and some of the trails there

Above: A profuse display of speleothems lines a cavity in Fitton Cave (photo by Nathan Braswell).

feature drastic elevation changes, so I wanted to test my ability on a local trail so I'd be able to plan appropriately for New Mexico. Hemmed In Hollow would prove to be the perfect trail for approximating a Guadalupe Mountains climb. Hemmed In Hollow drops over 1800 feet from the Compton trailhead to the Buffalo River, over little more than two miles. An unmerciful drop, particularly when you're packing over 40 pounds of camping gear. Hemmed In Hollow itself features the tallest waterfall between the Appalachians and the Rockies — reportedly 204 feet.

When I arrived, the region was still in the midst of a drought, so the waterfall was running at a reduced level, but a good stream was still emerging from over the top of the sheer cliff overhead. High winds whipped the water far off to the side so that little seemed to ever actually reach the ground. A third of the way up the bluff I could see remnants of cave formations that had long ago been

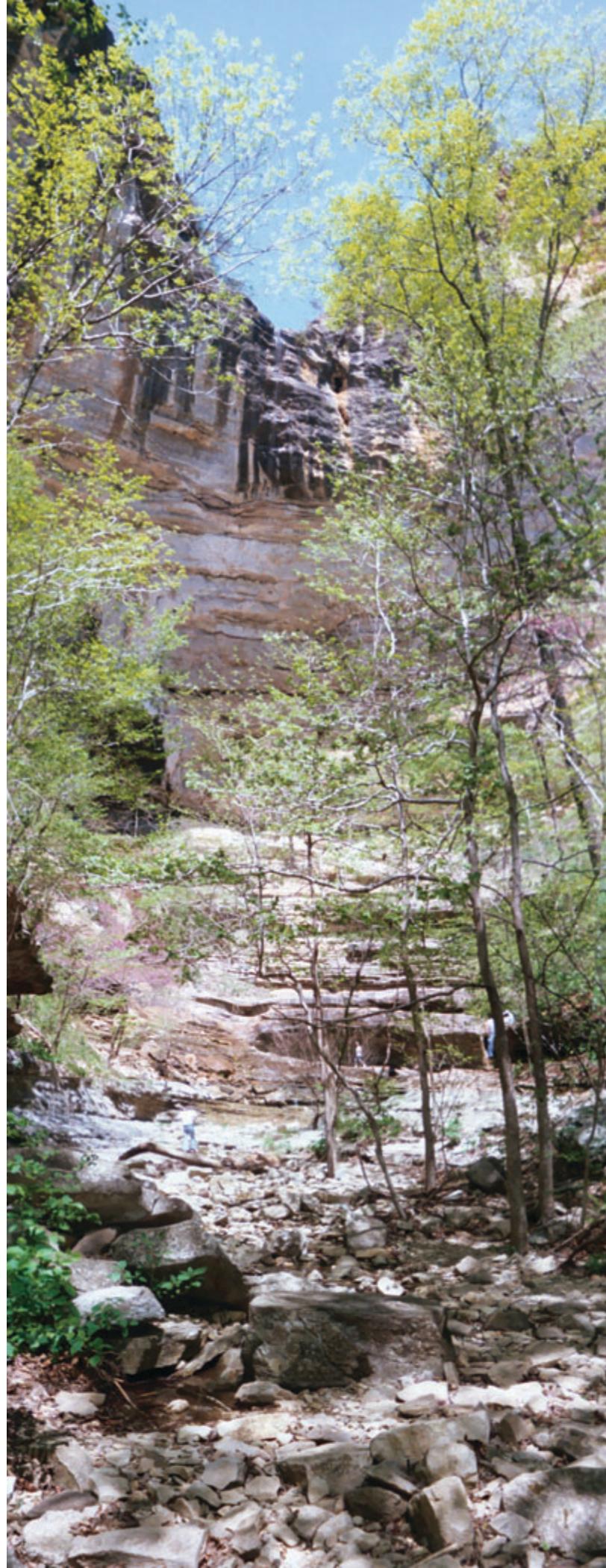
exposed to the elements — a tantalizing suggestion that the area may still be harboring sections of a Hemmed In Hollow Cave.

If the trip down to the waterfall wasn't bad enough, the trip back up would of course be far more demanding. Instead of hiking directly back up to the trailhead, I decided to hike up Sneeds Creek instead and return by a route that promised to be somewhat less steep. Maybe it was, maybe it wasn't. I don't know for certain. All I know is Sneeds Creek Trail kicked my butt. It contains an horrendous section that climbs about 700 feet in half a mile. I had to stop for a breather after every 100 feet of trail. I set up camp about half way up. On the following morning, I hiked the rest of the way up the hill and then moved onto a trail near Fitton Cave, where I spent a relatively slow-paced day examining the vicinity of the cave and recuperating from my Hemmed In Hollow experience.

That evening, the skies unleashed a torrential storm — 50 mph winds and two inches of rain. But the following morning, the sky was blue and the sun was shining. Most traces of the previous night's storm were already evaporating. This made the trek up the small hollow to Fitton's dry entrance relatively easy. (Fitton also has a wet entrance on the other side of the ridge. This entrance is known as Bat Cave.)

Wade and the rest of the caving group met me at my campsite on Sunday morning, April 20th, and then we hiked to the cave. We reached the cave entrance at 8am. To the right of the entrance, you can see the remnants of the concrete foundation poured by the cave's past owner — Arkansas caving legend Jim Schermerhorn. When he owned the cave, he had sealed the entrance with a heavy, square iron door. The door can still be found in the bottom of this hollow about a hundred yards to the southwest. Apparently some people have mistaken Schermerhorn's old door for the gate to Fitton. When I encountered the old door, a log was wedged under it, as if someone had tried to pry it open. But the door leads to nothing now. Schermerhorn's door was removed after the NPS took possession of the cave because the door wasn't bat friendly. In its place, an iron grate was installed with gaps between the bars that are large enough for bats to fly through.

In contrast to the Hemmed In Hollow trail, the caving trip to Fitton was much less demanding. Wade had decided this would be a photo trip. Accordingly, the pace of the trip was leisurely — which is fine with me: it gives ample opportunities to look for cave life. I've been on several caving trips where the goal was to move through a cave as quickly as



Right: The bluffs at Hemmed-In Hollow drop over 200 feet (photo by Gary Johnson).



Top: The dry entrance to Fitton Cave is gated (photo by Gary Johnson).

Bottom: "The Centerpiece" commands the entry room at Fitton Cave (photo Nathan Braswell)..

possible. And in those situations I've seen many interesting cave features fly past as a blur.

Wade struggled with the gate's combination lock for a few minutes before it finally popped open. Then we climbed down into the cave. To the right, cavers anxious to try their vertical gear can rappel to a lower passage. We went to the left and scrambled down a large mound of breakdown to the floor of a large room, at least a 100 feet across, with a good 20 feet of ceiling. A couple small pools to the left contained a handful of salamander larvae (about a half inch long each). About 20 Pipistrelle bats dotted the ceiling. Straight ahead a row of impressive columns served as a divider and broke the room in two.

Wade called the largest column "the centerpiece." We explored this room for several minutes as everyone took photographs. The formations here are quite large and form an impressive entrance area. We would return to this area a couple hours later and climb down the breakdown on the right side to a passage that extends for several miles to the east. For now, though, we pushed straight ahead and down another breakdown pile to the floor of another large room.

The scale of this cave is impressive. A thirty-foot high bluff-like wall curves around the left side of the room. Several wide, shallow pools sit at the base of the wall. I found a couple more salamander larvae in these pools. Off to the right, a scree-like pile of breakdown led up to a higher level. We would try that level in a few minutes. First, we tried the passage that bypasses this breakdown pile to the left. We followed the passage for two or three hundred yards while looking for a salamander nursery that Wade had encountered on a previous trip. He eventually decided this was the wrong route and we retreated back to the big room and climbed the scree.

The route over the scree led to a passage that is one of the cave's highlights: a profuse display of soda straws and other small formations. In this area we also discovered a high concentration of salamanders in a small pool about 12 feet across and about 6 inches deep. I counted at least 30 salamander larvae. Most were relatively small (about a half inch long each) and black in color but we saw at least two that were about two inches long. We could not identify the salamander type. The larger salamander larvae seemed to be grey with brownish-orange stripes down their backs.

Eventually, the floor and ceiling converge in this passage to the point that it becomes difficult to move without endangering the soda straws. So we retreated down the scree pile and headed for the east passageways. And here is where my memory gets foggy and the rest of the cave sort of blurs together. So I might be getting things out of order from here on.

After a relatively brief bit of crawling, we reached an unusual column that seemed to almost pierce the floor of the passage and continue on into the ceiling. The column was nearly cylindrical. Its base emerges from a small pit, about six feet deep. The column itself is about a foot wide. This strange column has earned such appellations as "the reamer" (for rather obvious reasons, which I'm not going to go into here).

A passage dubbed "the monorail" continues further. This passage is largely hands-and-knees crawling height. In fact, so many hands and knees have passed down this soft clay passage that a double-trough path has been worn. Unless you want to do some belly crawling, you'll want to place your hands and knees in the troughs. This makes negotiating the passage much easier.

Eventually, we reached a small room with standing height where the passage splits in three directions. To the left it continues as a crawl over breakdown. To the right it continues as a canyon like passage. And straight up, a path leads over some breakdown into a higher level of the cave. We chose the latter route.

This vertical path requires a minor bit of chimneying. The route leads into an upper level passage that largely consists of breakdown. That would be the norm for most of the passageways we would explore for here on. At first, we were in a series of large rooms. Each room had at least 30 feet of ceiling height. The first room was a breakdown pit with a single, small snow-white formation — one of the few formations we would see for the next quarter mile of passageway — serving as a signpost for the hole through the floor of the room (and indicating the route back toward the entrance).

The floor of the next upper-level room was covered with bat guano, although there were no bats in sight. In fact, the guano was so old that it had turned into a brittle crust. This room eventually linked into a third room with a wide pit to the left. Wade said a waterfall frequently feeds this pit, although there was no sign of a waterfall during our visit. This large room was approximately 200 feet across. On its far side the passage continued deeper into the cave.

We followed this route to a vertical perforation of the passage that Wade called "the manhole." It's possible to chimney to the bottom of this twelve-foot deep hole, but getting back up might be a problem. The sides of the manhole are covered with slippery flowstone. Instead of attempting the manhole, three members of the party attempted a belly crawl to the right, hoping it would link up with the bottom of the manhole. They described a narrow squeeze down into a maze of passageways, but they couldn't



Right: Large formations command the entry rooms at Fitton Cave, as these two photos attest (photos by Nathan Braswell).



find the bottom of the manhole. They felt they were close, but rather than risk getting lost in the maze, they chose to return.

From here, we continued to the east, through passages that required hands-and-knees crawling and occasional belly crawling, in the direction of the West Crystal Passage. Every now and then the passage opened up enough that you could sit upright. This passage was virtually devoid of formations. It was all breakdown and bare rock. We crawled through several hundred yards of such passage before we began to contemplate whether it was time to call it quits and return to the entrance. I wanted to see as much cave as possible, but I also knew I had a long drive back to KC waiting for me once I exited the cave. So I had to unfortunately argue it was time to turn around.



While the rest of the group sat and took a breather, I decided to take a quick look down the passage. Maybe the West Crystal Passage was just around the corner. Nathan Braswell (whose photos accompany this report) followed. We quickly plowed through about 300 yards of passage, all of which looked virtually identical — breakdown and bare rock — before we encountered a minor stretch of quartz crystals lining the edge of some large dolomite breakdown blocks. We felt confident this 20-foot stretch of crystals was not significant enough to warrant naming this passage the West Crystal Passage, but with no more promising leads, we decided to turn around. We quickly scrambled back to the group and began the trek back to the cave entrance.

Overall, this was one of the easiest trips that I've been on. Compared to the Richard Cindric-led trip to Gunner Cave (2/1/2003), this was an absolute cakewalk. But Fitton can no doubt be a much more demanding cave. It's all a matter of how far you explore and which passages you explore. The wet entrance from Bat Cave is a notorious section of Fitton, with thigh-high water that must be waded for extended distances. And then there is the 21 Jumps passage, where you must leap from one ledge to the other — 21 times — with a canyon passage below dropping 90 feet to water. No, this cave can be much more demanding. But this trip was a good introduction to Fitton. And now that I've been here once, I'm sure I'll be back to explore other passages. ■



Thanks go to Wade Baker for letting me join his trip and to Nathan Braswell, who graciously allowed us to publish his photographs. Nathan will spend Summer 2003 in the Northwest fighting fires. Good luck, Nathan!

Top: A Pipistrelle Bat hides among soda straws in Fitton Cave.

Middle: Speleothems line a small passageway.

Bottom: Gary Johnson stands beside "The Reamer" in Fitton Cave.

(photos by Nathan Braswell)



A Trip to Skull Pit & Devil's Den

trip report by
Jeff Page
photos by
Mike McKinney

The main purpose of this trip to Skull Pit and Devil's Den in Arkansas was to train novice vertical cavers in preparation for the upcoming trip to the Guadalupe Range caves of New Mexico. This was actually the second in a series of planned trips for this purpose. The first trip took place a few weeks earlier at Feakes Peak where several people trained on a cliff face on a very cold day. The trip this weekend would be the first in-cave rappel and climb for Pam, Darla and Jeff.

We camped Friday night at Lost Valley Canoe Rentals in Ponca. They have a couple of cabins, a shower room and a decent campground. Mike brought his Coachmen motor home. Darla and Jeff camped in tents. The Coachmen had mechanical problems on the way down, forcing a late arrival for Mike's group and delaying the caving start on the following morning. All the same, the sleep-deprived group got going around ten and then headed for Skull Pit.

A park ranger stopped to talk while we were unloading gear. He remarked that we looked like we knew what we were doing. He would check back to

Above: Terry DeFraties prepares for his descent into Skull Pit. Behind him, Darla White descends (photo by Mike McKinney).

assure we made it out safely. Skull Pit was not easy located easily. Some of the group had been there before, but quite some time ago. There was no specific parking area and the trail was also indistinct. Still, we managed to find it and collect a GPS point for future reference. Skull Pit is a beautiful karst creation on a very steep hillside overlooking the Buffalo River. It is also a very treacherous pit, being a twenty-foot-wide hole that drops 120 feet. Of primary importance was to get attached to a secure rope as soon as possible.

The novices were expected to rig two ropes on opposite sides of the pit utilizing their training from Feakes. We would then have two people on rope at the same time. The rigging was done and checked by the more experienced rope users. There is virtually no cave passage beyond the pit, therefore we were doing a "yo-yo" drop, that is, get everyone down and then climb right back out. This all went as planned. Everyone did a competent job of rappelling and climbing thanks to the oversight of Mike, Terry, Kathy and Richard. Mike



Top: A view from the bottom of Skull Pit.

Bottom: Kathy Sumner prepares to descend Skull Pit.

photos by Milke McKinney

and Richard snapped some digital photos. The ascent from the pit provided the best opportunity to appreciate the beauty of the sunlight illuminating the walls and flora above. It was a very memorable climb.

We de-rigged and were off to Devil's Den. This pit cave is on the well-traveled trail to Fitton. There were other hikers along the trail that day, but no other cavers were observed. Devil's Den entrance is not a free drop, as was Skull, but the drops are of similar total length. The first half is a funnel-shaped slide where the climber walks backwards on rappel. The second half goes over a lip and free drops to the bottom. The rope had to be rigged to a tree across the trail and downhill from the low side (six o'clock position) of the pit entrance. Another rope was rigged at the nine o'clock position to give one of the more experienced cavers a tether that they to use at the lip. They could then give instructions to climbers who might be having trouble with the descent.

Everyone got down with no trouble. Devil's Den has quite a bit of horizontal passage to explore once the pit is negotiated. About half the group removed their climbing gear and took off to explore. It was getting late in the day, however, and the group was getting tired and hungry. The exploration was cut short and we began the climb out. Terry, Mike, Darla and Jeff were still at the bottom when they heard "ROCK, ROCK, ROCK!" from above. A Pelican case fell to the bottom and shattered on the breakdown. Richard had dropped his camera case. Mike and Terry found the camera submerged in a pool of water. Richard's trip photos were lost.

Everyone got up the rope without incident and began derigging. Unfortunately, a bag tied to the end of the rope got hung up around the lower lip and Terry had to climb back down to free it. We got on the trail back to the cars around sundown.

This was a very successful trip for all the novice climbers. I came back with an appreciation for how much knowledge, experience and training is required for a trip like this. I also came to understand how much time is expended getting a half dozen or so people down and back up a rope. Thanks go to Mike, Terry, Kathy and Richard for their time and infinite patience. Cave softly and safely. ■

A Trip to Chilly Bowl Cave

trip report by Bill Gee
photos by Tom Lounsbury



Above: Chilly Bowl Cave requires a substantial amount of crawling.

Inset: An impressive display of flowstone in Chilly Bowl Cave.

photos by Tom Lounsbury

On one of the coldest days of the year, I drove down to Arkansas for a trip in Chilly Bowl Cave. Tom Lounsbury put the trip together. Chilly Bowl is about 20 miles south and a little east of Harrison, Arkansas.

I arrived at the "campground" (not much more than a clear spot among the trees) about 7pm. The road in was five miles of typical Ozarks dirt road, narrow and twisted and covered with snow. I have no idea how I made it with my 2x4 truck, street tires and trailer. There were more than a few occasions when I felt the back of the truck going sideways on a hill. Doing it at night made things even more ... interesting!

The temperature was around 10° F when I arrived. Yup, that is cold. I got the camper set up and the furnace running and then discovered that all inlets and outlets to my fresh water tank were frozen. There was no way to fill the water heater or drain the tank. I wound up sleeping on the floor so I could leave the tank uncovered and — hopefully — help the water thaw. I planned on three nights of camping, so I had some water in jerry cans to use for drinking and cooking. As it turned out, I was the only camper. Everyone else wimped out and camped in Harrison at a motel. The campground is good for tenters but very cramped for those of us with RVs. It is heavily wooded. The nearest real house is about a half mile on the other side of a draw.

The next morning people started to arrive about 8:30am. Joe

Ray was the first, then Bob Lerch. The three of us waited and talked and waited some more. Caver time was obviously the order of business here. About 9:30 we decided to rig the drop and get ourselves in the cave to wait for the rest of the gang. Joe had been there many times and knew exactly how to rig the drop.

The entrance to Chilly Bowl Cave is down the hill from the camping area, next to a creek. It is just a hole in the ground with some trees around it. The drop is in two pitches, the first about 60 feet and the second about 40 feet. In the middle is a pretty decent ledge to rebelay on. The bottom of the hole is a room perhaps ten feet in diameter with one small drain leading out.

Joe led the way with me second and Bob third. Once at the bottom, we stored our climbing gear and crawled into the drain. It goes down about ten more feet into a hole small enough to make an easy climb. At the bottom, the passage goes in two directions. The passage is about 700 feet long and 4 feet wide — and 10 to 14 inches high! Wowser, that was a long crawl.

A hundred feet or so in you go across the top of the Piddle Pit, a pit about 8 feet across and 10 or 12 feet deep. Just a piddling little



Top: Bill Gee's truck and camper sit in the primitive camping area near Chilly Bowl Cave (photo by Bill Gee).

Bottom: This unassuming trough is the entrance to Chilly Bowl Cave (photo by Bill Gee).

thing ... When Tom set up the trip he told everyone to make a pig. I had my doubts but did it anyway. After that crawl I'm really glad I did. It would have taken me twice as long with a regular pack, and I would have tied it to my ankle anyway. The only problem was that I did not have enough room for a camera. The only pictures I got are on the surface.

Joe proceeded to take Bob and me on a tour of the cave, at a modest pace. About two hours in we came across the rest of the crew at a crossroads. They were on the high road and we were on the low. We soon met up with them and became a party of 9. I don't remember everyone who was there. Lawrence Ireland, Ben Miller and Roger Brown are the only three I remember.

After getting out of the long crawl, the cave becomes extremely three-dimensional. We spent a lot of time crawling at

the top of a canyon or wiggling through passage only a few feet wide. There are not a lot of decorations. The passages criss-cross each other on several levels. At one point we crawled into a crack in the rock that is only 10 inches or so high. Go about 6 feet and you pop out the side of a dome. It's pretty impressive looking down 30 feet and up 50 feet. Backing out of that crack was difficult.

Eventually we came to a very large dome at the back of the cave. The dome is something like 200 feet high and 50 or 60 feet across, and has a waterfall and small stream in it. Up to then, the cave had been almost completely dry. Tom says the dome has been bolted and climbed, but there is not much up at the top.

We went into a side passage that has some of the biggest dogtooth spar in the world. The crystals are easily a foot on a side and cover a whole wall. The top of this passage comes out on the side of the big dome.

Everyone stopped here for a meal. After eating we went on by another route. Tom and Joe brought us to the place where they camped while surveying the cave. They have a real bunker in there made from a niche in the passage and a bunch of sandbags. It's big enough for 5 or 6 really good friends to sleep. There was a hammock hung between two rocks with several bats roosting on it.

We divided into two groups for the trip out. The second group waited 45 minutes before leaving. The trip out of the camping room was through some of the tightest passage I have been in. It was helmets off at several places. After some more canyon climbing and two etriers we wound up back at the entrance crawl. I quickly found out how the cave got its name. On a cold winter day, it was breathing in. The temperature in that long crawl was not more than 35 or 40 degrees and the wind was whistling through. Even with the very hard work of crawling, I was freezing.

Back at the entrance pit, Tom Lounsbury was the first one out. I went second. Being rather a novice at vertical work, I struggled getting over the two lips. It was about 8:30pm, so we had a good ten-hour trip in the cave. I went up the hill to the campground and started some of the vehicles so they'd warm up. Then I got out of my caving clothes and into my warm camper. Tom went over to the parking lot and started more cars. Everyone was out of the cave by 9:30pm.

Tom's original plan had been to spend Sunday doing some more area caves, but because of the cold weather, he decided to skip them. Once again I was the only camper. Everyone else wimped out and went into Harrison. Sunday morning I got up, packed up and was on the road by 9am. The roads were a little more clear than when I came in, but I still had a few anxious moments. At least on the way out, I could see where I was going! About the time I hit Branson, the drain on my fresh water tank thawed enough that I could empty it.

Despite the cold, the icy roads and frozen water tank, it was a good trip. Physically it was the hardest caving trip I've been on. That exit crawl about did me in. I'd like to do it again sometime when the weather is not quite so nasty. ■

A Trip to Gunner Cave & Needles Cave

trip report by Gary Johnson
photo by Regan Youngman

While at Blanchard Springs for a wild cave tour in December 2002, I asked the rangers about wild caves in the Sylamore Ranger District area, and they gave me a list of caves, with brief descriptions of each cave. I browsed through the list and found Gunner Cave. It sounded intriguing, so I mentioned it at the next grotto meeting. Gunner Cave is almost three miles long and according to the description on the Ozark National Forest document, requires a wet suit and a hand line (but no vertical gear). Richard Cindric had been to Gunner Cave before and he grinned when I mentioned it. He described a pit where an old wooden post served as a makeshift ladder and the only way up. He could hardly believe that someone had gone to the bother of dragging lumber into the pit and creating the ladder. But you could see his eyes light up. There was something special about this cave.

I didn't hold much hope of seeing Gunner Cave

Above: Richard Cindric checks his surveying figures while standing at the entrance to Needles Cave (photo by Regan Youngman).

anytime in the near future. But no more than a couple weeks later I got an e-mail message from Richard. He was going to Arkansas and he was interested in visiting Gunner Cave again. Would I like to go? I quickly accepted his invitation. But I didn't really know what I was getting into.

First, Richard said the cave didn't require a wetsuit, not for the area we were headed anyway. And he thought making a hand line a requirement was sheer folly — it didn't require a hand line. It required a full-fledged rappel. I didn't have any vertical experience, but Richard assured me that wasn't a problem: they'd set up a belay and lower me down. Piece o' cake. He seemed confident. I didn't think twice about it. So, great. I'm headed for Gunner.

This would prove to be the cave that would completely redefine for me what it meant to go caving. Gunner Cave

would be the most demanding cave that I had ever been in. Until Gunner Cave, all the trips I had been on were, well, easy and fun. Heck, I'd even gone through the end watercrawl at Whippoorwill Cave during the September 2002 grotto trip to Bear Lake. And I'd even enjoyed that experience. But Gunner Cave was in a completely different category altogether.

I arrived at the Blanchard Springs campground a day before everyone else, and this allowed me to hike from Blanchard Springs up to Gunner Pool and back. This trail — North Sylamore Trail — is especially scenic. You hike along steep bluffs and beside a beautiful stretch of river. Mixed in along the way are historic farm sites, wonderful groves of tall pine trees, and moss-covered valley floors. This is a great trail for backpacking. It includes two superb camping areas alongside Sylamore Creek, where

pine needles have formed a marvelously soft mattress. These campsites are free of weeds and underbrush and are accompanied by fire rings.

I'd read about some old cave formations that were now exposed high on the trail just north of Gunner Pool. So I hiked toward them. I found the remnant formations about a half-mile beyond the Gunner Pool Bridge. They were located high above the creek — about two hundred feet up the bluff. So these formations must date back hundreds of thousands of years, when the creek was just beginning to cut through the limestone and dolomite. At this point, the trail wound between some large blocks of dolomite before following a bluff line, about 50 feet below the top of the ridge. Immediately alongside the left side of the trail, the bluff dropped off sharply. To the right, along a small depression in the bluff, I found several

Blanchard Springs Caverns Wild Cave Tour

While few caving trips were arranged in the fourth quarter of 2002 by the grotto, I decided to fill the lull by heading for Blanchard Springs and taking one of their wild cave tours. These tours are not cheap. While Devil's Icebox at Rock Bridge Memorial State Park in Missouri costs \$25, the Forest Service asks \$65 for their wild cave tour of Blanchard Springs Caverns. A pricey proposition. But, hey, it's Blanchard Springs Caverns one of the most impressively decorated caves in all of the Ozarks. They also provide most of the equipment that you'll need. In other words, they provide the knee pads, the helmets, the headlamps, and the batteries. And after the trip is done, you get a t-shirt. It's not exactly a \$65 t-shirt, but it's a nice shirt with a picture of one of the cave's most impressive formations.

The first hour of the trip is preoccupied with getting everyone equipped and instructed on how to use the

equipment. Then a school bus drops by the visitor center and provides a quick five-minute ride to the same entrance that the regular commercial tours use — a concrete-and-glass air lock blasted through bedrock. We followed the Discovery Trail for about a quarter mile, which includes the cave's most impressive formation — the Giant Flowstone — a huge example of flowstone, 80 feet high and 200 feet long. A cave stream flows past the base of the formation. Soon afterwards, we left the paved trails behind and trekked down a clay-floored passage.

We spent a great deal of time in breakdown passages, but there are also some nice formations along the way. One of the highlights is a pair of huge stalagmites, "The Titans," each about 70 feet tall. The tour required little in the way of crawling. The passageway was almost all wide walking passage. However, it required negotiating some steep slopes and some semi-precarious ledges.

The tour also passes the natural entrance, which is a

vertical drop of 70 feet. Because of the difficulty involved in negotiating the natural entrance, the cave remained relatively free of vandalism, unlike many other Ozarks caves. Entry is also possible through the spring entrance — provided you're willing to don a wet suit and diving gear. This route requires negotiating lengthy submerged passages. (Entrance through the spring is strictly forbidden.)

This is a well-run tour. The guides aren't geology experts or speleology experts, but they're genuinely interested in caving and they enthusiastically share their knowledge.

But is the tour worth \$65? That's a tough call. And it's no doubt a personal call, depending on how much spare cash you have lying around. Whatever the case, this is a very impressive cave. It has some of the largest passages that I've seen in the Ozarks.

much deteriorated formations. Nothing earth shattering. But a fascinating little display of the area's geologic history.

I highly recommend the Sylamore Trail. It's one of my favorite areas in Arkansas. And the Blanchard Springs campground is excellent also; it has nice shower facilities and heated restrooms that are open year round, so this is a great place for winter trips. Thankfully the weather cooperated during the Gunner Cave trip weekend, with nighttime temperatures in the 40s and daytime highs in the 60s. Great weather for late January and early February.

That evening the rest of the caving group arrived: Richard, Terry DeFratics, Jeff Page, and Darla White. On the following morning, we dropped by the Blanchard Springs visitor center, picked up the caving permit, and got some quick directions on how to reach the cave. During previous trips, Richard had parked near a farmhouse, but the owner had apparently contacted the National Forest Service office and requested that cavers stay away from her property. So we were forced to take an alternative route, which the Blanchard Springs ranger described to us.

The route wasn't bad. It was all downhill for about three quarters of a mile. But it led over slick dolomite boulders, which made it real easy to turn your ankle along the way. In addition, we all realized that while the route to the cave wasn't difficult, it would be a real bitch on the way out. We'd have to be sure to get out of the cave before nightfall. Scrambling up the rocky creek bed could be dangerous in the dark.

The entrance to Gunner Cave is a pit. However, it can be negotiated without vertical gear. Tree roots and rocks provide plenty of handholds along the north side of the pit, making the climb relatively easy, although it would be easy to imagine someone slipping on the wet dolomite and plummeting 50 feet to the bottom. (According to Richard, this has indeed happened — with fatal results.) Just past the drip line, the cave floor was coated with several inches of ice. But the ice didn't last for long. Soon the entrance passage split in two. We looked down the left route. The passage became immediately watery. So we took the right passage. It became watery also, but the depth was shallow.

Gunner isn't exactly a beautiful cave. You won't find many formations or flowstone. But extensive water activity has carved out some large passages. The ceiling height probably averaged twelve feet and the width varied between 10 and 30 feet.

After following the passage over some two-to-three foot deep pools of clear water, which could be negotiated by way of several handholds in the rock, we arrived at a junction where the passage split in several directions. We looked at the cave map. One passage headed for a section of the cave called "the Nasties." We decided we'd skip that area. Instead Richard pointed at a canyon passage that led back to the left. He led the way as we zipped through the passage.

Eventually, we reached a section where Richard stripped off his pack and wrapped the strap around his ankle. He ducked under a twisted, well-weathered ledge of dolomite and disappeared. "Pack off," cried Terry. Hell with that, I thought, this doesn't look so bad. I crawled after Richard.

If I ever have any caving nightmares (not that I've had any, but if I do ...), I'm sure they'll be somewhat like the passage I found myself in. The passage immediately dropped to crawling height, and then bellycrawl height. The floor was completely composed of chert rubble. I pulled off my pack and pushed it in front of me. (Not a smart move, but I'm learning.) At one point, I had to dislodge Richard's pack, which while being pulled by his foot had become wedged between rocks. Eventually the passage dropped to only about 10 inches high. It pinched my chest and sharp fragments of chert left scratches down my chest and stomach. The passage was fairly wide, probably 10 to 12 feet. But it was a tight squeeze vertically. And it kept getting tighter. After I turned my head to the left, I discovered there wasn't room to turn my head anymore. I had to continue forward with my head cocked to the left. Chert rubble ripped the front of my cave suit. I was wearing an aviation suit, which is fine for most caves when extended crawling isn't required. But here, the chert broke the zipper pulls on the front of the suit (the pulls were made of thin, brittle metal) and sand filled the zippers (which I later learned made them impossible to open, so after we were done I had to stand in the shower, fully dressed, in order to unzip the suit).

As I struggled to get through the passage, even digging out some of the chert so that my chest could pass, stray neurons in my brain started firing off. PANIC! I started making pacts with myself that if I ever got out of this passage, I would never do anything like this again. PANIC! Get me out of this damn cave! And then I caught up with Richard. He was splashing around in a shallow pool, straining to see to his left and then to his right: "I don't remember this much water in here," he

said. Was he just screwing with me? I don't know. He seemed genuinely concerned. Maybe he was just putting on a performance to see me squirm. But he didn't seem to be acting. He seemed worried. "Are we turning around?" I asked. "Are we in the right passage?" Don't tell me this is all a mistake. Don't tell me we entered the wrong passage. Richard, you know where we're headed, right? Then he pressed on. And I followed him. Soon the 10 inches of crawlspace included a couple inches of freezing water. I could literally feel the water sucking the energy out of my chest. We crawled further into the water. PANIC! And I started to wonder how much energy I'd have left. Maybe I'd just die right here, wedged in a tiny passage, cold water draining away all the heat from my body. Hypothermia! What a way to go. PANIC! My brain kept telling me to get the hell out of there! Move! ... Moooooooooove! I had to fight away the impulse to panic. I tried to look at the situation in purely logical terms: panicking won't help a damn bit. In fact, it will do nothing but make things worse. I had to remain in control and continue forward. "Are we about out of this passage?" I shouted at Richard. (Give me some reassurance! Give me something, anything!) "I don't know," he said. That's not what I wanted to hear. Tell me the

passage is about to open up. PANIC! Tell me we're about out of here. "What do you mean you don't know?" I asked. What the hell does that mean? We're crawling into cold water, it's sucking the life out of me, and you don't know? How can that be? PANIC! I don't know if I can do this much more. I don't know if I can physically do this. PANIC! I don't know if ... I was looking at Richard's feet. He was standing up. He was standing up? He was standing up! I scrambled out of the passage and to my feet. But the cold water had taken its toll. I felt as if half of my energy had been sucked away.

The entire crawl probably wasn't more than 150 feet. I know there are much longer belly crawls out there. (Read Bill Gee's description of a Chilly Bowl bellycrawl in this issue of *The Month's Guano* for an example of a much longer bellycrawl.) But this cave passage in Gunner Cave is the one that I now use to measure all my subsequent caving trips. This is the passage that redefined caving for me.

Looking around, I discovered we were now in the pit that Richard had described at the grotto meeting. There was the old ladder. Two 2x4s were nailed together. Large spikes serving as ladder rungs. Could it be the same ladder that Richard had encountered nearly 20 years ago in this

Additional Sylamore Ranger District Caves

The National Forest Service's list of caves in the Sylamore District includes over two dozen caves. Many of these caves don't amount to much, but they're still fun to visit. Shelter Cave #1, for example, is about 750 feet long. It's located little more than 50 yards from one of the most frequently traveled trails in the park. If you know where to look, you'll find a faint path winding through the woods and up a hill. You'll even find what look like stones laid out as a stairway. So maybe this was a commercial cave at one time. Or maybe at one time the Forest Service encouraged visitation to the cave. The nice-sized entrance looked promising, but

the passageway quickly dropped to crawling height. Some old formations (long since vandalized and deteriorating) partly obstruct the passage. Shelter Cave #2 is not far away. However, it's much more difficult to reach. You must continue up the bluff to the left from Shelter Cave #1 and across a steep slope. It would be easy to imagine someone slipping and tumbling several hundred feet to the bottom of the hill. While this cave is much more difficult to reach than Shelter Cave #1, it shows stronger signs of human presence: the cave floor is one mass of footprints. While these caves have long since been left high and dry as the water table dropped, they must still get muddy on occasion. Sometime in the not so distant past, the floor of Shelter Cave #2 had become

muddy, and during that time, it was visited by dozens, if not hundreds, of cavers — all of whom left their deep footprints on the cave floor. The cave passageway here is much larger than Shelter Cave #1, although the cave is slightly shorter, about 600 feet long. You can walk in the cave entrance and all the way to the end of the main passage without any crawling or even any ducking. The passage is at least 30 feet across, and near the end of the cave, the passage increases to nearly 100 feet wide before narrowing down again for the final 70 to 80 feet. A huge rimstone dam (now dry) — about four feet high — chokes off the passage.

same cave? Richard seemed convinced it was the same ladder.

The only way out of this pit was up — unless you crawled back out the same way that you came in. The pit was actually quite interesting. It wasn't very wide at the bottom. It was no more than 15 feet across. But the ceiling was ... well ... my light didn't reach that far. On the back wall of the pit and curving to the left was a wall of flowstone that protruded like a column that had melded into the wall. The flowstone went straight up toward the ceiling, rising nearly a hundred feet. An impressive formation and quite probably the tallest that I've encountered in the Ozarks. Okay, so maybe the tight watercrawl was worth it.

Getting out of the pit involved grabbing the lightest member of the caving group and throwing them over the lip of the pit. Darla easily rated this position. So Jeff, Terry, and Richard picked her up and shoved her up the wall on the right side of the pit. This wall rose about eight feet and then slanted away at a steep angle. Richard handed Darla the rope. It was her job to climb up the steep clay slope and tie off the rope. Then the rest of us would climb out of the pit by using the rope. She scrambled up the slope, offering a somewhat hesitant "I'm okay" every few seconds to Richard's inquiries of "How are you doing?" But finally she reached the top of the slope (about 40 feet high) and succeeded in tying the rope to a rock. And then one by one, we followed her. This mostly involved pushing each team member up as high as possible, while they used an ascender. Not exactly an easy proposition. But once each member got past the lip of the pit, the clay bank wasn't difficult to negotiate. It was steep but the footing was secure. Richard was the last person left in the pit, so he didn't have anyone to provide help for the scramble out. But he has plenty of experience in vertical situations like this, so he made it look easy.

This route out of the pit left us in a large breakdown passage, somewhat similar to the upper level of Blanchard Springs Caverns (as I experienced it during a NFS wild cave tour). The passage was wide, generally 30 feet or more and the ceiling height was 20 to 40 feet. Not a lot to see here, however. Mostly just a large breakdown passageway. Eventually, though, the ceiling descended and Richard led the way into a low niche in the wall — for more belly crawling. But thankfully this was dry crawling.

The low passage led to a dropoff. Richard and Jeff descended first. There was only room for a couple people at a time at the lip of the dropoff. So the rest of us

waited in a small section of the passage where the ceiling height increased to a generous 30 inches. Darla showed me how to put on the harness, and she gave me a quick lesson on everything I needed to know about rappelling. It sounded relatively easy. I was ready. At the lip of the dropoff (a 25 foot drop), Terry went over all the details of rappelling while I was wedged in a small crevice at the lip. Terry was very thorough. I was ready to do it. What the hell could be worse than the watercrawl? The watercrawl put everything else in perspective. Rappelling? Child's play.

The original plan was to lower me by way of belay. Richard said the plan was foolproof (although I got the feeling he wasn't really telling me the whole truth again). In this case, however, the rope was so stiff that the descent was really up to me. I had to push the rope through the rack. So this really was my first descent. Jeff and Richard didn't have to do anything. It was actually sort of fun.

The most valuable lesson that I learned about rappelling was this — it's a very slow process. It took over an hour to get everyone to the bottom of the dropoff. And in the process, I could feel our remaining daylight (for the walk back to our vehicles) slipping away. Sure enough, when we finally got out of the cave (it was only about 15 minutes from the bottom of the dropoff to the cave entrance), daylight was fading fast. It was already dusk and would be dark within 30 minutes.

The trudge back up the creek and up the ridge wasn't fun. I definitely wouldn't want to do it during late spring or summer. You'd be fighting brush and ticks the entire route. But in February, the route was mostly clear — and bug free. That was small consolation, however; this was a real cardiovascular workout.

The trip to Gunner Cave forced me to the realization that I have a touch of claustrophobia. I had suspected for many years that was the case. But it hadn't been an issue while caving — until now. Previously I'd never been in a cave that required extended bellycrawling. So Richard showed me a whole different type of caving in Gunner Cave, a type of caving that I'd hardly imagined before. (According to Terry DeFrates, this trip was simple and undemanding, but Richard said this definitely wasn't an easy cave. He rated it a 7 for difficulty.)

For the next day, Richard planned for us to visit Needles Cave. This cave contains about a half mile of passages. Richard is involved in a surveying project there and he needed to check some of these measurements. We

wouldn't be in the cave long. Just a quick stop on the way home. Maybe a couple hours. Three hours tops. "Does Needles require any bellycrawling?" I asked Richard. "Not that I recall," he said. So I felt good. It'd be a nice little trip into easy walking passages. And that is indeed what we found at Needles — for the first half of the cave trip. But after that ... well, all I can say is don't trust anything Richard says. Nothing.

Needles Cave is located north of Calico Rock, near Bergren Cave. Both caves are located in the same little hollow, which is honeycombed with caves. Needles Cave was busy on the day that we visited. Three cars were parked nearby, and inside the cave, we found members of two different surveying teams. The cave has a pretty entrance, approximately 25 feet high and about 30 feet wide, and the rocks outside are covered with moss. The main passageway was fairly large for the first couple hundred yards into the cave and then it dropped to about 5 feet high, with a flat floor and a passage shaped sort of like a bell curve. Not a lot of formations, but water activity had carved some nice passages. We stopped for several minutes as Richard, Jeff, and Terry took measurements of a passage that had proved troublesome during Richard's previous surveying trip. Then we headed for the cave's waterfall. And here's where we encountered a bellycrawl passage. I had gained my fill of belly crawling at Gunner Cave and wasn't too excited about doing anymore so soon. As I muttered under my breath and glared at the low passage, the rest of the group tied their packs around their ankles and crawled forward. Shouting curses at the cave, I pulled off my pack, looped the strap around my ankle, and crawled forward, into the sandy passage that curved to the left. Luckily, the crawl didn't last long before dropping into a shallow depression. Any headroom at this point was appreciated. The depression led under a ledge of rock. After climbing past the ledge, we were now standing in the waterfall room. A modest stream, about one foot wide, slid over a narrow ledge about 15 feet above the floor of the room and dropped to a rubble floor. We sat down and watched the waterfall for several minutes.

Earlier in the day, a surveying crew had gone past the waterfall. We had encountered a couple members of this crew on our way into the cave and they were soaked but clean. They said the crawlway passage led to a sinkhole but they couldn't access the sinkhole because it was choked with trash and debris — an all-too-frequent sight in Ozark sinkholes.

On the way back to the cave's entrance, Richard led us

through a sandy crawlspace. Soon we were all caked with sand. This crawl wasn't difficult. It was likely a longer crawl than the chert watercrawl at Gunner, but the passage wasn't particularly tight and it was relatively dry. So the passage was easy to negotiate.

On the way back to our trucks, we encountered another surveying crew, and they found our condition to be quite humorous. Everyone else who had exited the cave had been washed clean, but we were coated with a thick layer of mud, clay, and sand. Richard tried to convince them that we had crawled through a passage that hadn't been mapped. "No, there's no passage there," they said. But look at us! The sand and muck on our suits is your evidence. What do you think we were doing? Rolling around on the floor of the main passage? They smirked. Oh, well.

So while Needles Cave contained much more crawling than Richard had led me to believe (once again, don't believe anything he says), it was still a relatively easy trip. And while getting to a cave can frequently be the most demanding part of a caving trip, here the hike was along a gravel road (with the final hundred yards to the cave entrance being a beautiful little stream).

This was a great trip, and I'm grateful to Richard for asking me to come along. I was clearly the least experienced caver in the group. I had no vertical experience. I hadn't done any extended belly crawling before. I had no surveying experience. About the only thing I was good for was reading a topo map. (The map reading skills were somewhat helpful during our trek to Gunner Cave.) Otherwise, though, I felt like I had little to offer the group. But I'll work on getting further vertical experience. And I'll study surveying further (I've already got a copy of *On Station*). I learned a lot during this trip — mostly about my own limitations. ■

Thank you Richard Cindric for inviting me on the trip. Thank you Terry DeFraties and Darla White for teaching me how to rappel. And thank you Jeff Page for serving as the camp cook.

Geologic Wonders *of* Buffalo National River

trip report by Gary Johnson

The following article discusses a handful of the geologic wonders present in Buffalo National River. This park is rich in towering bluffs, natural bridges, waterfalls, springs, sinkholes, stream-carved bedrock, abandoned mines, old quarries, steep hollows, and of course, caves. This article just scratches the surface and provides a random sampling of the park's wonders. Entire books have been written about Buffalo National River and its scenic qualities; however, the emphasis here is upon geologic features.

Lost Valley

Lost Valley is one of the most popular areas in Buffalo National River. It's easy to access. And the trail is relatively level and short. So while you might find yourself all alone on many of the trails at Buffalo National River, at Lost Valley you're almost guaranteed to have company. The wood chip and tree bark path heads up a hollow and passes large

Above: Pam Rader stands in picturesque Broadwater Hollow (photo by Mike McKinney)..

dolomite boulders and a forest of tall trees in route to a stunning collection of natural wonders. Cob Cave is a towering bluff overhang. There isn't any cave to explore here. But the massive bluff has been undercut by water action. Archaeological evidence indicates that Indians used this shelter cave. Corn cobs found in the cave are the genesis for the cave's name. Further up the hollow, you'll find a natural tunnel that bores through a limestone outcropping. A stream passes through this tunnel and keeps the limestone wet, so if you decide to walk through the tunnel, be sure to wear shoes with good traction, or you'll likely do a Buster Keaton and be seeing stars. Not far past the upper entrance of the tunnel, you'll find a nice waterfall taking a twenty foot drop to the stream below. Soon after, the trail starts a modest climb and weaves beside a limestone bluff. If you follow the trail to its end, you'll have found Eden Falls Cave. This is not a large cave, but you'll definitely need a headlamp



Top: Moss covers the rocks at the entrance to Mud Cave (photo by Gary Johnson).

Bottom: An impressive gour sits in the entrance room of Mud Cave (photo by Gary Johnson).

or flashlight if you decide to journey far inside. The cave's entrance is an easy-to-negotiate 200-foot-long passage that averages about three to four feet in height. Stooping and duckwalking will get you through the passage, as well as a minor bit of hands and knees crawling. (Be careful if you're not wearing a helmet. It'd be easy to smack your head on the cave ceiling.) The entrance passage is fairly wide, about thirty feet. Eventually the passage enters a large room with about 50 feet of headroom. Immediately upon stepping into this room, you're greeted by a waterfall. A small stream flows over a limestone lip and plunges 35 feet to a shallow pool directly at your feet. There isn't much more to the cave, but this is nonetheless a marvelous little cave.

Mud Cave

A well-trod path from Cecil Creek Trail leads directly to the entrance of Mud Cave. In fact, if you didn't know better, you might mistake the spur to the cave entrance as Cecil Creek Trail and not take the turn that leads up the rather steep hill and continues the main trail as it climbs to Cecil Bench. So I'm sure many people stumble across this cave by accident.

The entrance is at the base of a bluff. Cool air escaping from the cave keeps the rocks at the entrance covered with moss. The entrance is a horizontal slit with breakdown blocks (each two to three feet wide) lining the steep descent to the floor of the entrance room — about an 80-foot climb down. Back in the 1800s and the early 1900s, church services were reportedly held in the cave's entrance room on hot summer mornings. This is a large room and the main cave passage heads back and to the right. (The large passage eventually pinches into mud.) The passage is so large that it's a bit intimidating. A huge volume of black space occupies the back of the cave. With bright light streaming through the entrance, my eyes never adjusted to the room's darkness, and therefore my headlamp never seemed to make much of a dent in the room.

The cave's one true claim to fame is the large formation on the right side of the entrance room: a huge gour about 20 feet tall. Along its slick sides, you'll find dozens of small rimstone dams and pools. This is definitely an active formation, but because the cave doesn't require a permit and the entrance is not gated, the cave receives many visitors who walk all over the gour, not realizing (or not caring) how fragile the formation is. If you visit this cave, please be careful.

Broadwater Hollow

Located at the northern extreme of the Cecil Creek Trail, Broadwater Hollow is home to one of the most scenic waterfalls in Arkansas — Broadwater Falls. An unofficial trailhead just north of the town of Compton provides the easiest access to the hollow. This trail starts at the very edge of National Park Service property. So be careful where you park. Private property beside the trail is clearly posted. This trail winds through the hollow beside a small stream, passing large limestone boulders and small waterfalls. At Broadwater Falls, the stream takes a picturesque tumble over a limestone ledge and drops 20 feet to a greenish-blue pool. Not much further down the hollow, the stream heads underground, disappearing completely. Throughout its entire length, the stream plays a coy now-it's-here, now-it's-gone game as it flows to Cecil Creek, and then Cecil Creek plays the same game. Cecil Creek Trail crosses Cecil Creek many times.

Some of the crossings are wet and some are dry — a clear indication of subterranean water and a tantalizing suggestion that this area harbors a cave system. Just before Broadwater Hollow Trail meets Cecil Creek Trail, you'll find several wonderful campsites sheltered by tall trees and nestled beside a stream. A great place to camp while exploring this area.

Hideout Hollow

One of the highlights of my January 2003 trip to Arkansas was a visit to Hideout Hollow. Not many people visit this hollow or hike the trail. During the 16-18 hours I was there, I saw no one. That's their loss. This is one of the most scenic locations in all of Buffalo National River (although reportedly its inclusion as part of the national park territory was little more than happenstance).

A nice wide path leads from the trailhead for about a mile to the hollow. The trail leads to the edge of a sheer drop off — over 100 feet — to the valley below. Pine trees line the rocks at the lip, providing soft beds of pine needles and great places to pitch a tent. This is one of the best places that I've ever set up camp. I was treated to a wonderful sunset, while a gentle breeze kept the air fresh.

If you follow the trail for about a quarter mile to the left, along the lip of the bluff, you'll come to a stream and waterfall. The stream enters the park property from the southwest, splashing over some rocks and modest waterfalls as it makes its way to the drop off. If you continue past the stream to the left, you'll find a small indentation in the bluff face that can be followed to an iron ladder that begins the trail down into the hollow. I cautiously followed this route to the base of the waterfall. (The iron ladder is only about six-foot high. Be very careful using it, for it could easily be dislodged.)

The stream emerges over the bluff overhang and drops about 40 feet. The rock underneath the lip has been eroded so that the overhang extends about 50 feet. The floor of this area is filled with small breakdown blocks. I kept expecting to find a cave passage. But the impressive overhang had weathered into a brittle outcrop of limestone that preferred to splinter into small chunks rather than erode along joints.

I followed the bluff under the waterfall and back to the northeast until I was standing directly below the place I had set up my camp the night before. Along the way, I found the remains of an aborted stone structure and a deteriorating rail fence that had possibly been used for horses or livestock. Along the hollow floor, I found many signs that people have frequently used this area for camping (such as fire rings). Maybe there is a cave somewhere in the immediate vicinity, but I didn't find it. I highly recommend this trail.



Above: A small stream flows over this bluff at Hideout Hollow (photo by Gary Johnson).

Alum Cove

Alum Cove is not actually part of Buffalo National River, but it's not far away, in Ozark National Forest. You'll find Alum Cove south of Jasper. Just follow Hwy. 7 out of town and then look for the signs as the road follows an especially scenic stretch of highway that offers magnificent vistas to the east. Alum Cove is home to one of the largest natural bridges in the Ozarks. It's 130 feet long and 20 feet wide.. You can reach the natural bridge by following a steep but relatively short trail. If you need 'em, you'll find wooden benches about every hundred yards. The trail leads directly to the natural bridge, which is an impressive sight. A gap of only a few feet separate the bridge from a sandstone bluff. The natural bridge is all that remains of a sandstone shelter



Top: A series of small caves line the far side of the hollow at Alum Cove (photo by Gary Johnson).

Bottom: This natural bridge spans 130 feet at Alum Cove (photo by Gary Johnson).

cave that long ago collapsed. The trail follows the bluff providing good views down into the channel that runs beneath the bridge. For the best views, you'll want to plunge down to the base of the natural bridge. This area is wet and covered with moss. The trail continues down into the hollow, where in wet seasons a stream tumbles over some modest waterfalls. On the far side of the hollow, the trail runs beside several small but picturesque shelter caves. The front walls of the caves are thin and they curve in graceful arches. Meanwhile a forest of trees encroaches to within only a few feet of the entrances, creating a wonderful almost-magical atmosphere. If an elf or pixie were to make an appearance, you might not be surprised.

Indian Rockhouse Cave

Located near Buffalo Point, Indian Rockhouse hiking trail is one of the highlights of Buffalo National River. The trail passes a wonderful variety of natural features, including a sinkhole, a 30-foot waterfall, a spring, stream-carved bedrock, and a forest of stunted cedars along a bluff. In addition, hikers will find the remnants of an old mine, as well as an old quarry. It seems as if every few feet the trail has a new surprise. The trail's name comes from the cave at its farthest reaches. Indian Rockhouse Cave is largely comprised of a single huge room, about 200 feet long and 60 feet wide. Long ago, the south wall of the cave collapsed exposing the cave interior to the elements. Accordingly, the remaining cave formations, which are quite numerous, have reached an advanced stage of deterioration. This is one of those caves where you wish you could have seen it back when it was still wet and growing. It would no doubt have been quite impressive.

A stream cuts through the left side of the cave. And this is where visitors will find most of the interesting cave passages. A large passage bores into the back wall above the stream. This passage can be reached relatively easily by stepping on breakdown in the stream. But the passage doesn't go far. It doglegs to the left and dead ends after only about 100 feet. Meanwhile, the stream enters from further to the right, between several large breakdown blocks. Somewhat more interesting are a pair of passages near the front left of the main room. Both passages curve around and make for a few fun minutes of climbing before they terminate. One passage is immediately above the stream. The other passage climbs up a few feet along a twisting route.

According to one of the park rangers, visitors to these passages should be careful. Rainfall can cause the stream to rise quickly and visitors have drowned after being trapped in these lower passages.

Hikers will no doubt find several more caves while hiking Indian Rockhouse trail. For example, one cave consists of a nice-sized room, about 30 feet deep and 60 feet long. A large skylight perforates the cave's ceiling on the right side. In addition, when I hiked this trail in December 2002, I found a dry spring with an enterable (but narrow) entrance passage that wound down at a steep angle.

During the summer, the National Park Service offers tours of another nearby cave — Bat Cave. This cave can be found by following a steep trail to the east of Indian Rockhouse Cave. During the off-season, Bat Cave is closed, as its name suggests, to protect hibernating bats.

Rush Mines

The old mining town of Rush is the last canoe takeout point on the Buffalo River. Matter of fact, if you don't takeout at Rush, you're likely headed for the White River. Rush is now a ghost town. But back during WWI it was humming with activity. The hills that the town was built upon are rich in zinc and this metal was in high demand during the war. Zinc is used for several purposes. For example, it is commonly used as a protective coating for iron and steel. In addition, it is used for plates in dry electric cells and as a filler in rubber tires.

For evidence of the mining activity at Rush, you need only take a drive along the road that passes the few remaining houses at Rush. You'll find huge piles of tailings — the refuse from zinc mining. If you're a bit more ambitious, you might head for the hiking trail that leads up Rush Mountain. This trail climbs a steep grade for a quarter mile and then levels off. Along this level stretch of trail, you'll find an amazing number of mine entrances. Most of these entrances are now fenced off to discourage would-be explorers.

Several years ago the National Park Service brought in engineers to examine the mines and determine their state, and the engineers found the mines had become instable and dangerous. Sections had recently collapsed and other tunnels were on the verge of collapse. So no one is now allowed to enter the mines. But nonetheless, just standing at the entrances of these huge tunnels can be quite compelling. Most are yawning maws — 20 feet across or more.

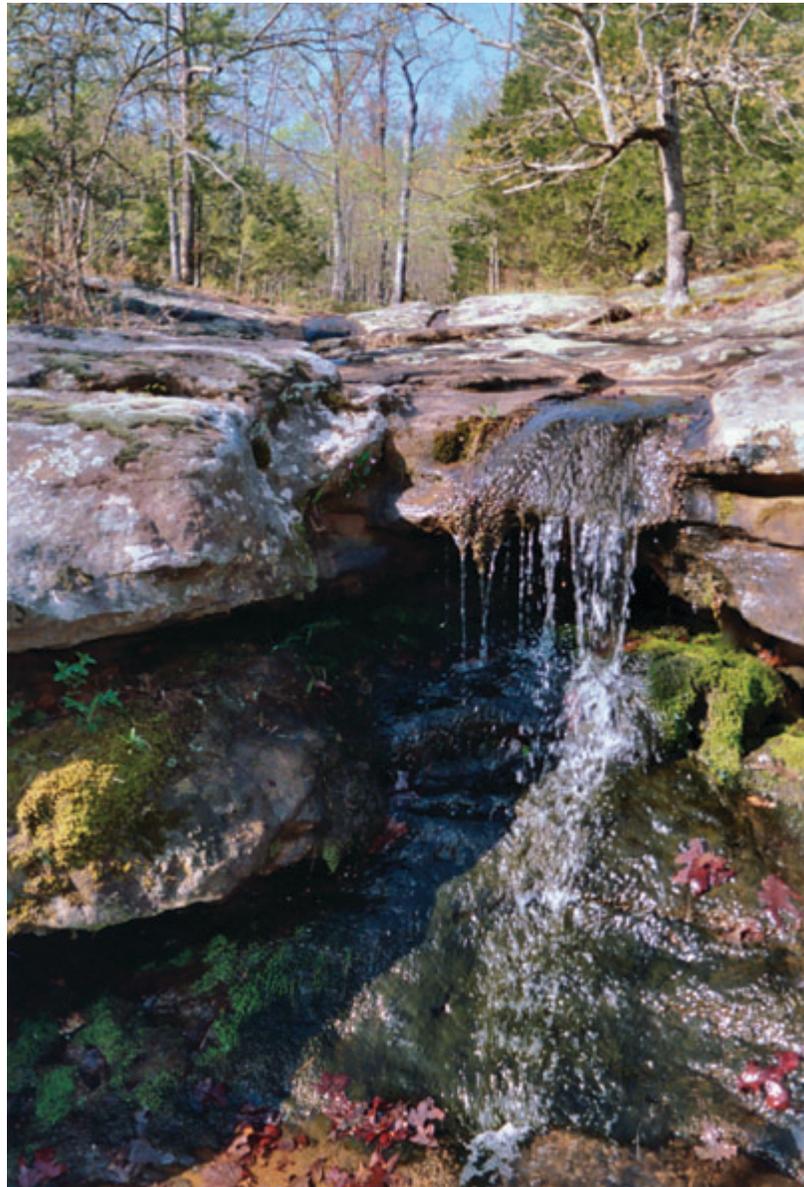
While following the main trail around Rush Mountain, I found many trail spurs. I wondered what these spurs might be leading to, so I followed one and soon found myself standing in a channel that had been blasted through a shelf of limestone: a row of three large mine entrances towered in front of me. Cold air poured from the tunnels. Surrounded by forest, and with the passing of time giving the artificial entrances a rugged, weathered appearance, the mines now look like caves. A very impressive sight that will no doubt make any caver salivate. But remember, these mines are in an advanced state of decay and entry isn't wise. I resisted the temptation to look further and returned to the main trail.

On the far side of the mountain is Monte Carlo Mine, which was active until the '60s. (Most of the other mines closed soon after WWI ended.) Near the entrance of Monte Carlo Mine, you'll find some mining machinery left as evidence of the past activity here. This was probably the largest of the mines at Rush — and its tunnels are rumored to intersect a lengthy cave system. Accordingly, the mine's several entrances are heavily gated. ■

More Articles About Arkansas Caves

In previous issues of *This Month's Guano*, we've published several additional trip reports about Arkansas caves. Here is a list of those trip reports. All these issues of *This Month's Guano* are available for download from www.kcgrotto.org in PDF format (Acrobat Reader required).

- Four Mile Cave (August 2002)
- Fitton Cave (August 2002)
- Chilly Bowl Cave (map only) (May 2002)
- Big Hole (photo only) (May 2002)
- Whippoorwill Cave (March 2002)
- Skull Pit (March 2002)
- Amos Neal Cave (March 2002)
- Little Bear Cave (February 2002)
- Kiddy Mix Cave (February 2002)
- Alexander Cave (March 2001)
- Blanchard Springs Wild Cave Tour (April 2001)
- Ennis Cave (map only) (January 2001)



Right: A small waterfall at Hideout Hollow (photo by Gary Johnson).

Modu'LED 8 Kit for Petzl Duo

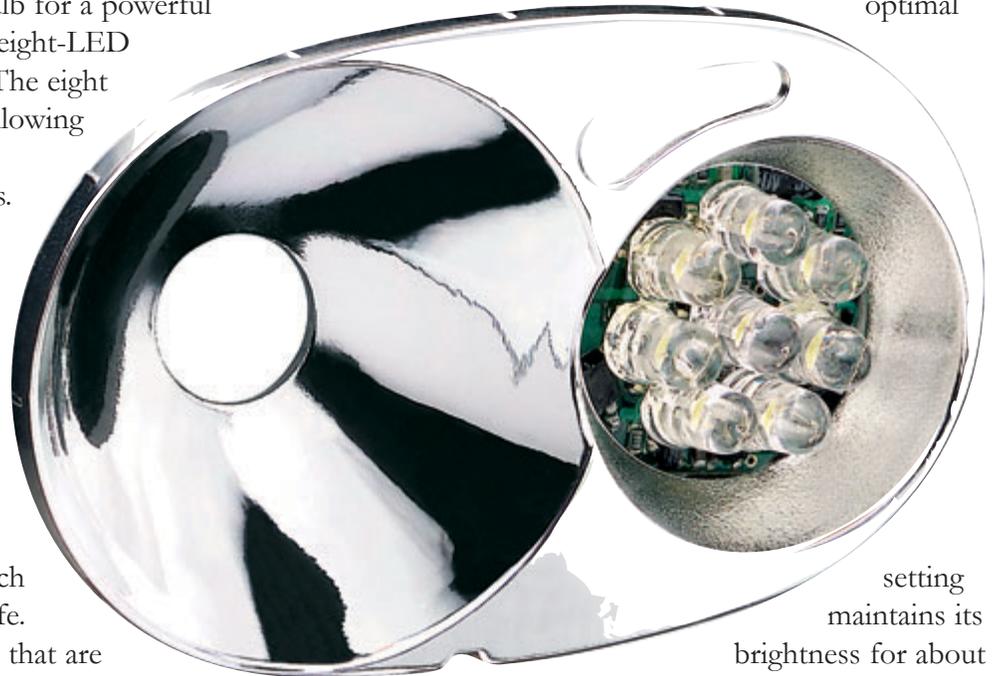
AN EQUIPMENT REVIEW BY MICHAEL FRALEY

The never-ending quest for the perfect light continues. Cavers constantly have to make trade-offs between light quality, battery life, weight, durability, and of course cost. However, the design team at Petzl has worked to give cavers a good compromise on most of these items. True to its name, the Modu'LED 8 houses a halogen bulb for a powerful beam for distance lighting and an eight-LED module for extended battery life. The eight LEDs have three power settings allowing the user to determine a balance between battery life and brightness. Each setting is regulated to maintain a constant brightness level. While the Duo LED 8 sells for around \$99 from Inner Mountain Outfitters and Karst Sports, both vendors sell a Duo Modu'LED 8 kit for around \$50. Both vendors also sell a version of the Duo Belt with the Modu'LED 8 for around \$99, which considerably extends the battery life.

This model has several features that are attractive to cavers. First, if you already own a Duo, you need not buy an entire headlamp in order to take advantage of the benefits of the module. Installation is easy. You simply need to unscrew the bezel, remove the reflectors, replace the standard bulb with the module, seat the new reflector (included), and replace the plastic lens and the bezel. During the installation process, it is important that you pay attention to the module's polarity. If you place the module in incorrectly, it will not function. If the module does not work, simply remove it, rotate it 180°, and place it back into the duo. Petzl provides a color pamphlet to guide you through the simple process.

The next feature that will attract cavers' attention is the variable power settings. The lamp has three settings: maximal, optimal, and economic (maximal being the brightest setting, and economic being the dimmest). The power regulation on the module means that each setting maintains a constant brightness for as long as

battery voltage will allow, then begins to dim and then maintains a very low level of brightness until the batteries finally die. Operating on four AA alkaline batteries, the maximal setting maintains its brightness for about five hours before declining rather quickly, leveling out, and then dying after about 50 hours. The optimal



setting maintains its brightness for about 15 hours and dies after 55 hours.

The economic setting maintains its brightness for 65 hours, declines very slowly, and finally dies after 90 hours. The Duo Belt LED 8, which operates on four C batteries, has a much greater burn time. The maximal begins to dim after 14 hours and dies after 160. The optimal setting maintains its brightness for 10 hours and dies at around 180 hours. The economic setting lasts for an impressive 180 hours and finally stops after 240 hours. Selecting a power setting is simple. Flipping the switch down will start the module on the optimal setting. A quick flick off and back on will set the module on maximal. Another flip off and on will activate the economic setting. Cycling through the settings is as easy as turning the lamp on and off. The switch is, unfortunately, on the left side of the lamp, so right-handed cavers will have to learn to adjust the lamp with their left hand.

The module's quality of light is excellent. One

problem that covers generally have with LED lights is the tint of the light. Most LEDs advertise themselves as having a "white" and "more natural" light. However, though many LED modules do have a soft white light, others appear more blue than white. Since most cavers today have been used to the yellow glow of an incandescent bulb or carbide lamp, the switch to something that leans on the blue end of the spectrum is sometimes an uncomfortable adjustment. However, the LEDs used in this module have a good quality of white light with only the slightest bluish tint.

The question still remains "Which setting will I use when caving?" This question really depends on how much light you are used to. The light of a carbide lamp with a 1.5-inch flame and a four-inch reflector

produces a level of light somewhere in between the maximal and optimal setting. I expect that most cavers will choose to use the maximal setting, though some cavers have reported using the optimal on several of their trips. Certainly the optimal setting allows for safe travel through a cave while providing a soft diffuse light to illuminate a caver's peripheral vision. One caver reported preferring the maximal setting, but realized halfway through his trip, he had been caving on the optimal setting. If you decide to use the optimal setting, you can expect to change your batteries after about 16.5 hours of continuous use. Nonetheless, the desire for more light will be more of a concern to others, and maximal will be the setting of choice. If you use the maximal setting, expect a battery change at about six to 6.5 hours. Note

Pros	Cons
<ul style="list-style-type: none"> • Adjustable power levels • Reasonable battery life • Rugged Construction • Three year warranty • Pivoting head • May easily retrofit existing equipment 	<ul style="list-style-type: none"> • Questionable waterproofing • Duo LED 8 is a bit pricey for some cavers

that the characteristics of the cave will also make a difference in your setting preferences. In small caves the optimal setting will provide more than enough light, where large cave passages may require the maximal setting or the halogen bulb. The economic setting is not suitable for a primary light source, but makes an excellent light for food and water breaks.

The Duo itself has a number of features that have made it a popular choice. The pivoting head mount and durable construction are both plusses. However, some have raised questions about how water resistant the light may or may not be. It is telling that Petzl has included instructions as to what to do if water gets in the circuits.

Overall, this is a suitable caving light. It makes use of several functions that LED cavers prefer: it

has adjustable power settings, reasonable battery life, and good quality of light. Two of its settings are acceptable as primary light sources. The price of the Duo LED 8 is also quite reasonable compared to other LED headlamps. If you already own a Duo, the price of the Modu'LED 8 is that much more reasonable. The three-year warranty for the module is an added bonus. ■

My special thanks to Stephen Brewer, Mike Spencer, Steve Kennerly, Art Goller, David Lasser for sharing their experiences and comments on the lamp; Jon Rockefeller and Alex Sprowl for revision suggestions; and the members of the Kansas Speleological Society for help in field testing.