CRF Work Weekend at Hamilton Valley, May 1-2, 2020, Was a Concrete Success!

By: Stan Sides

Cast of Talented Characters (no special order): John Feil, Dan Greger, Joyce Hoffmaster, Kay Sides, Mary Schubert, Chuck Schubert, Pat Kambesis, Eli Winkler, Tim Green, and Stan Sides.

Auxiliary Support: John’s fine JD Compact Tractor, concrete mixer and auger.

On Friday afternoon we drilled the post holes with the tractor, and John and Dan began planning gate location. Tim replaced run-start capacitors in AC/Heat units first thing Saturday.

On Saturday Stan and Chuck inserted posts in the ground. John, Chuck and Dan are poured the gate rest pole.

Mary, Eli, Pat, and Kay worked inside and outside, cleaning. Joyce worked outside excavating the sites for new concrete box drains to handle runoff from the building gutters.

Both downspout drains are now upgraded with grates and concreted in. We assiduously avoided spraying water on Tim afraid all his Quickrete dust might start setting up!

We all were pretty tuckered out by Saturday evening and savored a fine meal of Kentucky Fried Chicken.

We completed the gate work on Saturday, May 16th. The new gate looks and works great thanks to John’s fine engineering and metal fabrication skills.

On the Cover

Hannah Sanders and Caleb Schlager survey Tension Crack in the Arkansas Ozarks. Photo by Mark Brooks.

Due to the severity of the COVID-19 outbreak the UNESCO Karst 2020 meeting originally planned for May 18-22, 2020 has been postponed until August 17-21, 2020.
Preceding page: Left to right, Eli and Mary wanting their faces blurred so their spouses don’t see how much they like to clean. This page, clockwise from upper left: Left to right, Tim and Dan. Guess who was lifting all the Quickrete to the mixer?; John, Chuck, and Dan pouring the gate rest pole. The gate will be mounted on the form to the right of Dan, with a lock pole across the lane. Tim is on the tractor to fetch more Quickrete off John’s trailer; Tim, Dan, John, and Chuck concreting the downspout rain that Joyce Hoffmaster prepared; Mary and Kay standing, with John Feil and Chuck Schubert adjusting spacer washers. Photos by Stan Sides.
Stories About Red Watson

Richard A. “Red” Watson entertained us, motivated us, and did much to create the very structure of CRF. His energy and enthusiasm, self-confidence, and generosity are unforgettable to all who knew him. This is the first of three articles to reinforce the memories of those who knew him and introduce him to those that didn’t.

Phil DiBlasi writes:

Sometime in the 1990s, when CRF ran expeditions out of Maple Springs, Jan Marie and I were leading the Thanksgiving Expedition. The ferry was not running, due to high water. Buz Grover had gone caving. Red, who came to the expedition, had told me, after I had assigned him to a party, that he was “not caving this weekend”. The parties had all left camp, even Mick Sutton’s, and Red had disappeared while we worked on cleaning up breakfast pots and pans and leftovers.

Red suddenly came into the kitchen and demanded my belt. “Why?” I asked.

“To make a tourniquet,” Red snapped.

“Why do you need a tourniquet?” I asked.

“I got out of the shower, was opening the window, got stung by a bee, then I killed it,” Red replied. “And I am really allergic!”

“Holy [expletive]! Where is your epipen?” It seems Red had not carried his pen on this expedition. “How allergic?” I asked.

Red replied that he would die in about an hour if he did not get the epinephrine.

The ferry was down and the only hospital was in Caverna, via Brownsville, and this meant it was way more than an hour away. I explained to Red that he was going to die, because the hospital was more than an hour away.

Red explained that if he could apply meat tenderizer, it might forestall him going into shock. At that point, I started to tear the kitchen cabinets apart, going through the old spices, teabags, and other generally useless crap left by prior camp managers looking for some Adolph’s.

Jan Marie went to the bathroom and came back, saying she could not find a dead bee. The space between the window and screen was filled with dead wasps. Red and I hotfooted it over to the bathroom and checked out all the dead wasps. No bees.

“I guess I’m not goin’ to die,” Red said.

Ken Carstens remembers:

As a grad student of his wife, Patty Jo, and living only a few blocks away from their residence, I was often at their home—whether Red was cooking a lunch and delightfully feeding me fried pig testicles (he called them Rocky Mountain Oysters) ... or being ‘upstairs’ in his attic office—seeing and hearing him pound out some

scathing letter with great academic points within while tearing some poor colleague (in CRF or fellow philosopher) to shreds with biting but truthful insight to their many flaws!!!

Gail Wagner shares:

Red caught a squirrel. This story took place during one summer in probably the late 1970s when I was staying at Mammoth Cave National Park to escape the relentless heat of the St. Louis slums. Red’s practice was to don sweatpants, long-sleeved sweatshirt, and hat to jog along the boundary road. One day, as he related, he saw a car hit and kill a squirrel. Thinking ahead to dinner, he picked up the squirrel’s body and tucked it into his waistband, and continued jogging. Around the next bend or so he jogged past a private residence where a little girl was playing in the front yard. Her eyes widened: did you catch that? I’ve eaten both squirrel and groundhog cooked by Red.

This is how they live. During the NSS world spelaeological conference, Red brought a group of “tourists” – I believe mostly CRFers, over to my slum apartment that was accessed via fire escape from an alley and across a flat, black roof on top of a business. After people had entered the kitchen, where you could see the antique enamel stove up on legs, he swept his arm in an expansive gesture and said, with typical Red delight, “and this is how they live” (referring to poor graduate students). I paid $90 a month rent, which was cheap, even then.

Red also seemed to like to move heavy objects ...

Red and the flagstone. Red decided that a large slab of limestone was needed to serve as a step into the Collins House at MCNP. He searched streambeds and found a large one that was wrestled partially into the VW bus. What I remember about this incident was that the VW bus sliding door got dented – I don’t remember exactly how, but I believe the rock was sticking out the door and when the rock got caught on something, the sliding door frame was dented.

Red and the grape arbor. Red decided to build a grape arbor down the sidewalk that divided his back yard in St. Louis. He recruited me to help him carry a persimmon tree trunk that someone else in his block had left in their yard. That is when I learned that persimmon wood is just about the heaviest wood in North America – that trunk weighed A LOT! The grape arbor was beautiful and created a leafy, shaded bower down the sidewalk.

Scooter Hildebolt recollects:

I remember vividly two cave trips—one in which Red was going to climb a vertical wall. I was worried that he would fall and injure him-
self. He did fall when he was about three feet off the floor, and that ended the wall climb. On another trip, we had entered the cave when heavy rains were forecast. We eventually headed for an entrance other than the one we had used to enter the Flint Ridge Cave System, and when we got there water was pouring down the entrance, which involved a short vertical climb. I thought that before we drowned we should turn around; however, Red insisted that we press forward, and we did. Although we exited the cave soaking wet, we were unscathed, and Red was right, as always.

**Bill Steele tells:**

I remember when I first submitted the manuscript for my book *Yochib: The River Cave*, which in 1985 was one of the first books published by Cave Books. Red wrote me a letter before returning the marked-up manuscript. He said that there was a book there, he was encouraging, he said that it was going to take some hard work to get it publishable, and he said to brace myself for a lot of red ink. I braced myself, but not enough. He'd marked through many of what I thought were my best lines.

**Carol and Alan Hill were vacationing in MCNP when a friend suggested they meet Red Watson:**

We did go over to Floyd Collins Crystal Cave that morning and did meet Red outside of the ticket office. Red was getting ready to lead a party of cavers, including Jack Stellmack and Dave Jones into Bedquilt Cave. When I mentioned that I would be continuing to attend graduate school in Ann Arbor, Red at once seemed interested (another person to ride down to Flint Ridge with!), and he immediately asked if I would like to join his trip. I was hesitant because I had never been caving before, but since I was eager to do so, I said “Sure.” So Red and I went over to the SpeleHut and he gathered up some old caving gear and boots, and off we all went to Bedquilt.

When we started caving, I realized how totally unprepared I was! Besides crawling, stooping, and contorting my body in every-which direction, we came to a place called the WOW Shaft, which is some 60 feet deep, but which looked much deeper to me. Then I found out that we had to cross the WOW Shaft to see what was on the other side. What was on the other side was more contortion, including lots of “chimneying” (which I had also never done). In one of these chimneys, also about 60 feet off the floor, I got leg cramps and remember thinking, “If I ever get out of this alive, I’m never going caving again!” Well, my very first cave trip turned out to be an important one, because we went in the Bedquilt Entrance, but came out the Colossal Entrance – that is, we connected Bedquilt Cave with Colossal Cave. After this 16-hour cave trip I got back to our tent and told my very worried wife Carol about my horrendous adventures of that day.

**Here is a different first impression from Art & Peggy Palmer:**

When we first met Red Watson in 1966, we were thrilled to encounter another of the early CRF members. Red had a way of making friends that was a bit unconventional. When he first met Peggy, he was complaining about a wood tick that had taken up residence in his navel. He couldn’t get the right combination of line of sight vs. angle of attack, and he wisely chose Peggy to fish it out with tweezers. She had the proper combination of gentle touch and clear eyesight to do the job, while Red lay back prone on a dining table. Out came the tick, and Peg came away with a bemused view of Red.

Red was known for his fitness as Joyce Hoffmaster attests:

Shortly after we bought HV, Red was down helping clean up the place. He and I were carrying a roll of barbed wire removed from interior fencing on a steel fencepost, one of us on each end. He talked continually as we walked up out of the valley, while I gasped and struggled to keep up with him. That got me started on getting in the best shape of my life, which led to the caving and other marvelous things I did for the next 20 years. I also made a lot of oatmeal raisin cookies that he enjoyed. I took some to the International in Texas for him. Pat scolded him for eating them, but I made them for him. He was certainly the most lovable curmudgeon that I have known.

**Bill & Sarah Bishop concur:**

When Red and Patty Jo moved to Montana, Bill and I parked our trailer on their property and had a lovely visit. Red, then in his 80s, demonstrated his prowess at splitting wood for their stove. He also led Bill and me up a brushy slope to a local high point. Of course, there was a path, but it was longer. He was just showing us whipper snappers that the old guy could still run us ragged.

And Red loved books. Roger McClure remembers visiting Red at his home in cold weather. Red would wear a stocking cap and fingerless gloves so he could turn the pages as he read by the fire in the fireplace. Greer Price knew that home and Red’s generosity with his library. He says:

Some years ago when Red and Pat were clearing out the house in Missoula, in preparation for their move to Massachusetts, I flew out to help. Red went from bookshelf to bookshelf, pulling off books and handing them to me to take home. Just like old times. “He’s got a car out there he can load up!” he told Pat. She reminded him that I was flying home. So en route to the airport I stopped at a mail house and shipped several boxes of books back to New Mexico. I think I knew it would be the last time we played that scene.
The Monument had requested a new map of Bandersnatch Cave for upcoming maternity site monitoring next year. This is in Elmer’s Trench, the area Ed Klausner is working on, but his next visit is planned for April after the maternity season starts. We elected to make this our first priority, as we were unsure how long it would take. The four of us; Mark Jones, Paul McMullen, Karen Willmes, and I, accompanied by Maranda Allen, an intern at the monument, went out to the cave to see what we were in for. We first assessed the south entrance collapse and determined that two other small entrances in the collapse were technically connected by the dripline and that they, too, would require survey. We obtained a survey of the collapse and started into the main body of the cave. We surveyed up over the breakdown pile and into the main chamber below, although sketcher burnout set in on the way down. We noted bat guano, pica poo, and woodrat scat, which Mark referred to as the trifecta of scat. We also observed fresh owl pellets.

Day Two at Bandersnatch saw the four of us finish up the survey of the main chamber by the north entrance, although sketcher burnout once again set in before reaching the station at the last shot. Operations Manager John Tinsley arrived as we were leaving and gave me a ride back to the Research Center (RC). This confused Paul, who dropped us off at the cave in the morning and walked down to join us, and had gone to retrieve his car from the parking area. He hadn’t seen me get into John’s vehicle. Mark and Karen had a little fun with him before explaining what had happened.

On Day Three we were determined to finish, but it was not to be. John and I first went up to Monument Headquarters for a brief meeting with NPS managers David Hays and Jessica Reid. Mark and Paul started off to the cave while Karen and I waited for Travis Sizemore, a seasonal employee at the monument. John then spent the day sorting paperwork for various LABE projects before visiting the NNE side of Mammoth Crater to obtain a sample non-vesicular dike for potentially radiometrically dating the basalt of Mammoth Crater (bmc). Mark and Paul started on the crawl that goes under the breakdown pile and when Travis, Karen, and I arrived, Karen took Travis so he could join them while I got the sketch caught up to the survey. The left wall of the cave continued beyond the primary portion of the north entrance, and Karen and I started to survey this when Travis showed up. He had to get back to work. Mark and Paul soon joined us, and we stopped for lunch. The four of us finished up this segment and then went in to survey the Skylight Room. My vision of a skylight is something that is overhead. This is more of a light leak where ceiling and floor come together. It isn’t passable. After finishing up this area we went back to the south collapse and took a shot into one of the small holes that was connected by the drip line. Out of time for the day, tying in the other small entrance and surveying it would have to wait for the following day.

For Day Four, Mark, Karen, and I returned to Bandersnatch for the last time this expedition. When we had surveyed the collapse I had sketched it at forty feet per inch. I now needed to sketch the shot that went to the last hole connected by dripline at twenty feet per inch, as I had done with the rest of the cave. As I did so Mark and Karen went in to see what we were in for here. They found that this entrance was actually the rear entrance of Monument Road Cave, which had already been surveyed. We took a shot to what we thought likely to be a station in the entrance and called it done, creating the Bandersnatch-Monument Road Cave System.

Our survey of Bandersnatch came out to 845.05 feet in the cave and another 343.3 feet of surface survey and splays.

We then headed off to the south trench of the Balcony Flow which is my regular work area. Picking up the survey from last April, we placed another seven stations in a section of trench that is 160 feet wide. Our method here is to run survey lines along each side of the trench and a third line down the middle. Even at forty feet per inch, this takes a while. We then returned to the RC.

John and Paul went off this day to survey and inventory caves in the Valentine Cave basin. John reports: “In AM and early PM, finish map of large room of Basement Cave. Paul locates the way into the so-called ‘basement’ of Basement Cave. However, it is unstable and tight to enter through a small descent over about a six to seven foot drop. We elect to not push it, as there are but two of us, neither of especially small stature, particularly Tinsley.

Move to Criss’s Cave, a Townsend’s bat maternal colony cave close to the Hill road. As bats were not resident, we started mapping that cave, doing the first third. It was Paul’s first attempt at sketching. He did well! Thank you, Paul.”

John headed home on Day Five after packing up and washing the breakfast dishes. The other four of us went out to Honeycomb Hollow. We wanted to do this on a cold day due to an active
beehive in the Honeycomb Annex. When we arrived I was shocked to see that the beehive was gone. I had seen the beehive on a previous visit. It had been up to two and a half feet long as reported earlier by Chris Roundtree. In April there had been a steady stream of bees flying to and from the hive. Now there were only a few remnants, some mixed in with sticks for what may be a nest of some type. We still had to mind the bees, of which a dozen or so remained, as they got more active while the sun warmed the cave. We surveyed the collapse, then the Annex, which we connected to Honeycomb Hollow Cave through a breakdown crawl at the north end of the collapse. Honeycomb Hollow Cave and Annex totaled 201.3 feet. We moved on to an undocumented cave in the collapse next to Honeycomb Hollow that was a hands and knees crawl and dubbed it Bee’s Knees Cave. It surveyed out to 59.3 feet. Out of time, we called it a day, returning to the RC.

Paul departed in the morning of Day Six, and Mark, Karen, and I returned to the Honeycomb Hollow collapse. Continuing clockwise around the collapse we surveyed Honeycomb Grotto which was just over 20 feet long at the south end of the collapse. Then came Honeycomb Balcony, which developed on two levels on the west side of the collapse. It surveyed out to precisely 40 feet. Having finished up the various features in the Hollow, we returned to the RC at about 3:30PM as I needed a short day to let my knees recover a bit.

On our last day Mark had committed to helping with ice monitoring. Karen and I went back out to the trench and put in another four stations before heading back to the RC for a late lunch and packing up. Once we had the car loaded we cooked a frozen pizza for dinner and then headed to a Susanville hotel to avoid getting up hours before dawn to catch our flight from Reno to Baltimore in the morning.

Carlsbad Caverns: Report on February 2020 Music Room Expedition

By: David West

Bottom line up front: 1,969.46 feet of survey was accomplished. Of this, 1,493.84 feet was new survey, 300.3 feet was resurvey, and 175.32 feet was redundant survey.

Participants were: Dave West, Karen Willmes, Ed Klausner, Elizabeth Miller, Chris Beck, Jeanette Muller, Mark Jones, Paul McMullen, and Fred Wilkinson.

We had a number of objectives, as follows:
1. Get a profile of the tourist trail below Windowlands. Verify ceiling between MA46-MA44.
2. Survey the last remaining leads in Windowlands, the pit at MA301, and a continuing passage at MA355/356.
3. Continue survey in Osteoporotic Boneyard.
4. Survey mid-level leads, some bounded by breakdown under a massive boulder.
5. Resurvey down from MA15 to MA20, investigate side leads along the way.
7. When Ed attempted to add detail to the survey from MA48-53, he strongly suggested it be resurveyed. Leads were ignored. May or may not start that this expedition.

On February 24 we began with a meeting with Ellen Trautner from the NPS for general orientation and to obtain survey paper and other necessary materials. I had requested she have a look at the MA301 pit the previous year and she provided me with copies of the notes. Chris and Jeanette were fighting off colds. Ed Klausner with Paul, Mark, and Fred resumed work on the Osteoporotic Boneyard that was begun last year. Karen, Elizabeth, and I obtained additional details for two profiles. We also attempted the lead at MA356. Billed as “walking passage” it was anything but. I am sure there is a floor somewhere below the narrow canyon. None of our party were comfortable pursuing it, and we will do so when we can send a team fully capable of traversing it. Ed’s party turned in 97.7 feet of new survey and 192.1 feet of resurvey while ours turned in 116.92 feet of redundant survey.

On the 25th Ed, Elizabeth, Paul, and Fred continued in Osteoporotic Boneyard and Karen, Mark, Chris, and I began surveying mid-level passages in the Music Room boneyard. This day Ed accomplished 139.2 feet of new survey and 29.1 feet of resurvey. We accomplished 264.94 feet of new survey. Poor Jeanette remained at the apartment fighting her cold.

February 26 saw Ed, Karen, Paul, and Mark knock off a lead at MA72 before finishing up the survey in Osteoporotic Boneyard and obtaining the profile from MA44 to MA46. Meanwhile Chris, Fred, and I finished up the mid-level surveys. Ed’s team had 165.1 feet of new survey and we had 208.5 feet of new survey and 34.8 feet of redundant survey. Elizabeth was suffering from a sore shoulder while Jeanette continued fighting her cold.

On February 27 Karen opted to stay in the apartment and read her book. Frustrated at being sick during what may be her only opportunity to go caving for a while, a medicated Jeanette joined Fred, Elizabeth, and me as all of those caving headed to MA419-MA440 survey to investigate the 17 or so leads there. Ed, Mark, Paul, and Chris would also look at resurveying from MA16-MA20. My party returned with 172.7 feet of new survey and 7.4 feet of redundant survey while Ed’s party had 132.4 feet of
new survey and 9.6 feet of resurvey. Ed put off the resurvey of MA16-20, wishing to have 8.5x11 paper and a clipboard to finish it.

February 28, the penultimate day of the month this year, was to be our last day of caving. Elizabeth’s shoulder had resumed acting up and she elected to not go caving. Karen and I needed a short day so we could start packing to leave early the following day for a flight out of El Paso. Jeanette was determined to cave for another day, and although anxious to push leads, Paul signed up to join the three for the day. Ed, Fred, Mark, and Chris returned to the MA16-20 resurvey. My party examined the area where the Guadalupe Trail and the Music Room Boneyard converge, determining it would need more work than they could devote to it this day. They took a couple shots in an effort to improve a loop thought to have problems. Ed’s party returned with 313.3 feet of new survey and 69.5 feet of resurvey.

One interesting set of circumstances occurred on the 25th and the 28th. On the 25th Mark and I each lost a glove at MA3B1G while surveying the mid-level. They apparently dropped through a narrow crack in the floor. Not wishing to leave litter in the cave, Mark climbed down to MA433 in the level below and found my glove, but could not find his own. Then on the 28th as I was investigating the area of the Guadalupe Trail, I found Mark’s glove a short distance from MA57 in the next level down. Karma.

We are much closer to finished than I expected. The lead at MA355 remains. We have three pits to drop, one at MA432, one at MA46, and one at MA19C. Other side leads remain at MA432, MA436, three at MA438, and one at MA448. The pit at MA46 will give access to Ellen’s MA301 series where there are seven leads reported. And there are three un-surveyed leads in the MA-G confluence area as well as the need to better represent the beginning of the Guadalupe Trail. We might finish up next expedition.

Ozark Operations Activities, March-June 2020

By: Scott House, with reports by Kayla Sapkota

April 10, 2020
Mark Jones monitored the entrances of nine caves while also maintaining locks (cleaned/oiled) on the four caves that have gates.

April 14, 2020
After finishing some Forest Service work Mark monitored three cave entrances which included oiling and exercising the locks on two of them.

April 21, 2020
Mark continued his solo work, monitoring the entrance of one cave (plus oiling the lock) and monitored a short cave that is a known archaeological site.

April 27, 2020
Mark and Dennis Novicky inventoried gating steel at the Shawnee boneyard.

April 30, 2020
Small caves south of Big Spring were monitored by Mark Jones.

May 31, 2020
The gate on Branson Cave was checked again by Mark, Dennis, and Brenda Goodnight, owing to a lot of activity in and around gated caves. Then a nearby cave lead was checked.

June 2, 2020
Mark and Dennis floated from The Prongs of the Jacks Fork down to Buck Hollow, monitoring five NPS caves and one private cave.

June 5, 2020
Scott House and Andrew Porter met Skyler Bockman and Monty Heise of NPS to take a pre-
tour evaluation of Round Spring Cavern. In addition to COVID concerns, the access bridge washed out and has yet to be replaced. While the unvisited cave was lively with salamanders, not one bat was spotted along the half-mile long tour route.

**June 8, 2020**
Mark Jones and Dennis Novicky installed a new sign on a bat cave on the lower Current River. They then checked a cave in search of grotto salamanders, finding more than 30 cave salamanders but no grottos to know of it (juveniles are difficult to identify). The cave was guarded by two immature vulture chicks who hissed vociferously at the intrusion.

**June 12, 2020**
Scott and Andrew, plus Patti House monitored the entrance areas of three caves along the upper Current River as part of an overnight canoe trip. Miles away, Mark and Dennis monitored two caves in a hollow off of the upper Jacks Fork and surveyed a third, new cave.

**June 15, 2020**
Mark Jones, Kirsten Alvey-Mudd, and Jim Mudd monitored three caves on the upper Current, afloat on a beautiful day. All the caves were alive with salamanders and a few bats were noted in one.

**June 16, 2020**
Mark, Kirsten, and Jim monitored several caves on the lower Current. One of them is a restorative bat site; while no bats were spotted, new guano piles indicated occasional summer use. Another cave featured 29 western slimy salamanders.

**June 17, 2020**
Mark, Kirsten, and Jim monitored six caves on the upper Jacks Fork on a beautiful day. Plenty of other cave life but sadly, no bats. They did conclude that a 16-foot canoe is not the most stable platform for three adults.

**BUFFALO NATIONAL RIVER**

***CRF work at Buffalo National River (NPS) is facilitated through a cooperative cave management, survey, and bat monitoring agreement.***

By Kayla Sapkota

**March 7, 2020**
For our only trip (due to COVID-19) during the second quarter of the year, we operated out of the Toney Bend Facility on the Lower District of the Buffalo National River. This facility, also known as the George Harp Field Station, provides an excellent base of work for reaching the Lower District caves. It is situated on a bluff overlooking the river and has bed space for around 18 and much floorspace.

Fifteen folks divided into five teams to hit various objectives across the district. Rhett Finley, Pradeep Sapkota, and Seth Colston traveled to South Maumee and bio-monitored Junkyard Cave, determining that it could use a new map, as the old one is incomplete. They also identified the location of another cave, Crack in the Earth, which will need at least a handline to enter in the future. After, they drove to Dillard’s Ferry and bio-monitored Crawlway...
Cave and Goose Cave before heading back to the research station.

Krista Bartel, Kyle Bourland, and Drew Westerman traveled to North Maumee, where they mapped and monitored Boothill Cave, QZ Cave, Smeltzer Cave, St. Peter Cave, Weeping Loft Cave, Neotoma Nest, and Skeeter Cave, rounding out a full day of survey.

Mark Brooks, Hannah Sanders, and Caleb Schlager also traveled to the North Maumee area, starting just south of the North Maumee put-in. They surveyed Tension Crack, with Hannah Sanders sketching and then located/monitored Spiderwort Cave and Not Yet Cave. Tension Crack had previously been reported as a lead but was long enough to be assigned an accession number and be surveyed.

Missing a third who wasn’t able to join that morning, Kayla Sapkota and Mollie Ratliff drove over to the Indian Rockhouse Trail and completed the lower level survey of Panther Cave, having monitored Abandoned Dreams Mine on the way there. A bit further along the trail they surveyed Bullet Cave, too. With time left after, they monitored Overlooked Cave, Forest Trail Ridge Cave, and Forest Trail Pit.

Dillon Freiburger, Aaron Thompson, Claty Barnett, and Nathaniel Stone set out to bio-monitor Warner Mountain Cave and map a few smaller caves nearby. The route to the cave overland was to a be a challenging one and lived up to that label with the hills, scrambles, and vegetation encountered. When the team entered Warner Mountain Cave, they encountered a cluster of endangered Indian bats and, per protocol, turned around to avoid further disturbance. After, the crew headed back to the car and stopped by Waterfall Pit #2 to try to further the survey. Having taken a good beating on the squeeze and second vertical pitch, they gained a few shots on the survey and then headed back to the car. The survey instruments’ disagreements factored into the decision, as well.

The nice spring weekend was polished off by a dinner of enchiladas and rice and discussion of future angles of attack on the unsurveyed caves in the area.

**MARK TWAIN NATIONAL FOREST**

CRF work on Mark Twain National Forest (U.S. Forest Service) is performed through a cooperative agreement covering inventory, survey, monitoring, and gating. The Mark Twain covers 1.5 million acres, and the bulk of it contains caves. Much recent work has been focused on three forest districts: Ava, Cassville, and Eleven Point. Most trips are based at the Winona Ranger Station but Ozark Underground Lab has been used as well.

**March 9, 2020**

Dennis Novicky finished repairing a cave gate on the Eleven Point District.
**March 20, 2020**

Ken Grush and Dennis Novicky met local Jenna Clouse to hike parts of Cedar Gap Conservation Area (southern Wright County) to look for a few reported caves. Although they mostly came up empty-handed, the area was beautiful with much flowing water and small waterfalls.

**May 31, 2020**

See above Riverways report. A cave lead near Ozark Riverways was found to be a new cave on MDC land. It is low, wet, and miserable but otherwise a good lead!

**ELSEWHERE**

**May 21, 2020**

Scott and Patti House plus attendant dogs hiked several parks in Perryville MO looking at sign sites and gathering information on native plantings. The sign program intent is to install karst interpretive signs in parks in Perryville. It is a cooperative effort between cavers, the City of Perryville, and other interested cooperators.
Clockwise from upper left: Afloat on the Current River. Photo by Scott House; Caleb Schlager checks a lead. Photo by Mark Brooks; Panther Cave on a sunny spring day. Photo by Mollie Ratliff; Effective gate guard, aka Pygmy Rattlesnake (Sistrurus miliarius). Photo by Jim Cooley; Tricolor Bat with WNS in Junkyard Cave. Photo by Rhett Finley.
C349 Smeltzer Cave
Buffalo National River
Searcy County, AR

A Suunto Tandem & Disto X Survey
by Krista Bartel, Kyle Bourland,
and Drew Westerman
of the Cave Research Foundation
Cartography by Kayla Sapkota, April 2020
Survey Length: 49.8 feet (15.2 meters)
BARN HOLLOW SHELTER (TEX216)
Ozark National Scenic Riverways
Texas County, Missouri

formed in Ordovician aged Casconade Formation

surveyed 6/12/2020 by
Mark Jones and Dennis Novicky
Map drawn by Ed Klausner

(c) 2020 Cave Research Foundation
CRINOID PIT EAST
Benton County, Missouri
BEN-032

A Dixie XI Survey on May 30, 2020 by
Bud Beeson, Matt Beeson, and Mike Beeson
with surface support from Jim Cooley
of
CAVE RESEARCH FOUNDATION
Cartography by Matthew Beeson

Entrance

Legend

- entrance pit
- cave wall
- drainage of entrance
- tier ledge
- ceiling ledge
- ceiling channel
- ceiling height in feet
- slope
- nose
- rubble, gravel
clay/dirt
- pool
- precast
- foundation
- column
- ingenuity
- end trimmer
- floor trimmer
- bedrock pillar (plow)
direction of view
for cave section
surface notation

Profile View

Entrance

Surveyed Length: 593.7 ft (182.0 m)
Horizontal Length: 318.4 ft (97.0 m)
Depth from surface: 78 ft (23.8 m)
The following poem, by Keven Neff, accompanies the illustration below, by John Yankel.

Most of us have used our hands to do:
“Here is the church and this is the steeple,
Open the doors and see the people,
See the choir going up the stairs,
And see the minister at his prayers.”

Well cavers need one, too:

“Note the entrance to the cave,
See the formations in the nave,
Enter vandals four,
Now the formations are no more,
But deep within the cave of doom,
There does exist a pretty room,
But to keep them forever more,
We must seal the front door!”