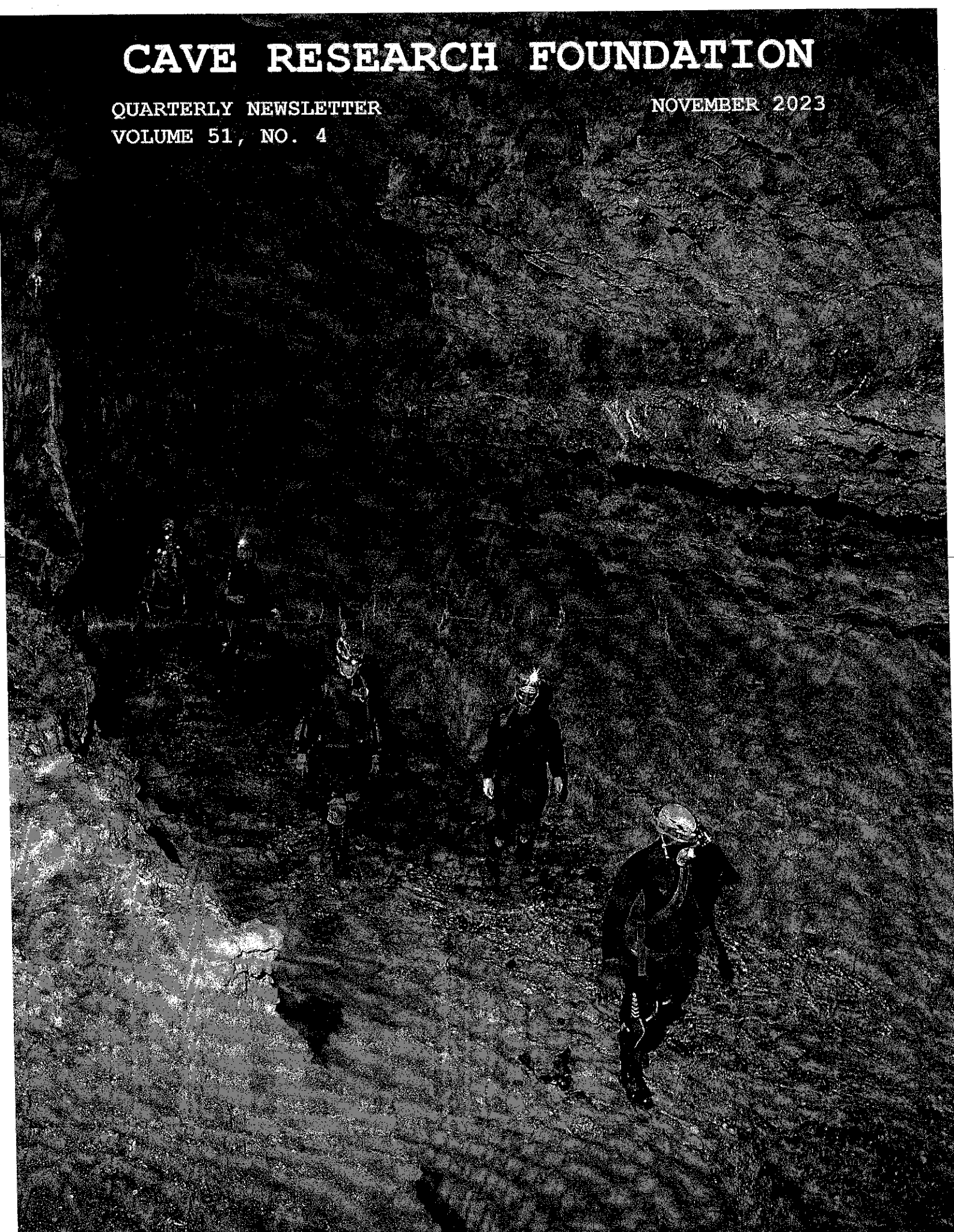


CAVE RESEARCH FOUNDATION

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VOLUME 51, NO. 4

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President's Column

By: Kayla Sapkota

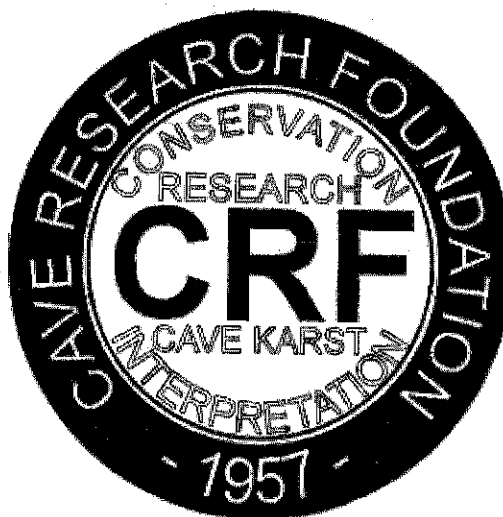
Many of you have likely heard the phrase, "Teamwork makes the dream work." I had a boss once who repeated this statement often, and I have very much come to value the sentiment. We all have something to give, and we all must work together to achieve the best results. This certainly rings true in our cave research.

What's in a team? A few strong answers might be trust, special knowledge, friendship, and common goals, but what else would you add? A mapping or inventory team works best when each member applies their knowledge and skills to the good of the common goal, and a rescue team functions best when roles are delineated with established organization. I have always been impressed with the strong teamwork on our expeditions, and I hope to see great things in the future as teams, leaders, and goals develop over time.

On November 3rd, CRF's Board of Directors and officers will meet as a team at the National Cave and Karst Research Institute in Carlsbad, NM, to discuss business, finances, area/project reports, organization, and other agenda items. The next day, November 4th, everyone is invited to an open meeting with updates and exciting presentations. Hope to see you there!

Muddy Smiles,

Kayla Sapkota, President

**On the Cover**

A line of cavers headed upstream in Powder Mill Creek Cave. See Corey Ellis' report on the trip to retrieve the climbing pole in Powder Mill Creek Cave beginning on page 13. Photo by Derik Holtmann.

REGIONAL EXPEDITION REPORTS

Lava Beds National Monument: Balcony Flow, April 2023

By: Dave West

Once again the Balcony Flow and Elmer's Trench projects would share personnel in the hope of wrapping up both projects. Mark Jones and Ed Klausner started things by picking off leads in Elmer's Trench on the 20th. There is an area between Elmer's Trench and the Balcony Flow where it is difficult to determine to which flow a cave belongs. It turns out one of the caves they surveyed was close to one I had already included in the Balcony Flow, so the notes for Broken Blister (35.1') were turned over to me for drafting. Many of our leads remaining are caves previously deemed to be too small or short for survey. The current management would like us to identify anything that looks like a cave by location and map it if we think it should be mapped. We adopted the Iowa Cave Standard of 15 feet to determine if a feature would be mapped or not, calling anything 25 feet long or over a cave and anything under a grotto as a general (but not absolute) guideline. Previous guidelines had been 45 feet or 40 feet, and we are not changing any names previously given.

Karen Willmes and I arrived late on the 20th, after everyone else had gone to bed. On the 21st Mark joined Karen and I for the day. The area between the Balcony Flow and Merrill's Trench is another place where flow determination is difficult. In the past, travel through it was extremely difficult due to the terrain, but mostly because all the small trees and large shrubs didn't provide a reasonable path through with visibility limited to what was right in front of you. The fires had eliminated all flora from the area, and last year we passed through with relative ease compared to a previous effort. And we found a lead as we did so. It became the first objective of the day and was named Clamshell Cave due to the shape of the entrance. Survey length was 39.87'. We continued on in the southern part of the flow to knock off all the leads to be accessed from the Merrill Parking, mapping Double Window (30.97 feet) and Thin Bridge (27.27'). Then we sketched two grottos, Ranginui and Papatunuku. Look up Maori Origin stories for clarification. We surveyed two more caves, Spiderchute (33.46') and Narrow Slot (34.495'), before returning to the Research Center (RC).

On the 22nd all of us (Ed, Mark, Fred Wilkinson, Karen, and I) went down to the Balcony Parking to resume checking leads south of Hill Road and teaming up in groups of two or three as we found something to survey. Ed and Fred surveyed CAV Cave (34.4') while Mark, Karen, and I surveyed Nice & Icy (35.245'). Then Mark, Karen, and Ed surveyed Snug Hug

(25.04'), while Fred and I surveyed Tiny Tube (28.32'). Ed and Fred mapped Bubble Up (32.1'), wrapping up all of our leads south of Hill Road. We all returned to the cars and began checking leads north of the road. Mark, Fred, and I surveyed 3 Bubbles Cave (34.75') and Grotto (5.44'), then Mark and Karen surveyed Oomph Grotto (17.8'). Paul McMullen arrived, but we ran out of time before we found anything else to survey that day.

Having wrapped up Elmer's Trench, Ed needed to do something vertical in the Lower Cave loop on the 23rd, and since Karen and I had left our vertical gear in Baltimore the two of us went out on the Balcony Flow while the others went with Ed. We first sketched a couple grottos noted the previous day, surveyed Shoulder Grotto (19.7') and then returned to the Srooc Cave entrance collapse where Karen and Mark had surveyed Oomph Grotto. We mapped the collapse and the other small grotto, naming it Srooc Grotto (12.1'). It probably connects to Srooc Cave through the breakdown, but I doubt anyone would fit. I stumbled during the process, spraining my ankle, but not severely. We then mapped Featurette Cave (26.98') and Grotto (sketched) before moving on to Survivor's Grotto (19.43'). Featurette has a nice lava ball. The entrance to Survivor's is occupied by a fairly large and quite healthy shrub that complicates entry.

Mark joined Karen and I again on the 24th. We started by going to the area between Balcony and Elmer's to check leads on my list. On arrival to our first lead we found a small hole almost too small to enter at all, that was entry to a short passage about two feet wide and eight feet long and less than a foot high. It was at the downflow exit of a nice feature, so I took a dis-to shot to sketch that in. Lo and behold, a better entrance was located therein. Having found the Right Grotto, we mapped it despite it being only 12.655 feet long. The other became the Wrong Grotto, sketched. At our next lead is when we discovered that Mark and Ed had surveyed something on my sheet. Mark instantly recognized Broken Blister. Ed had declined to survey the next lead, and I agreed. I did a quick sketch of the Bridge to Nowhere. We headed east to where we had more leads. Mark sketched Urchin Grotto. We surveyed Dismal Crawl Cave (38.035') and Grotto (sketched), then Flapjack Bridge Cave (95.035'), Stocking Cave (50.525'), and Mudhole Cave (110.34'). These last three were certainly caves under previous standards, but were apparently overlooked.

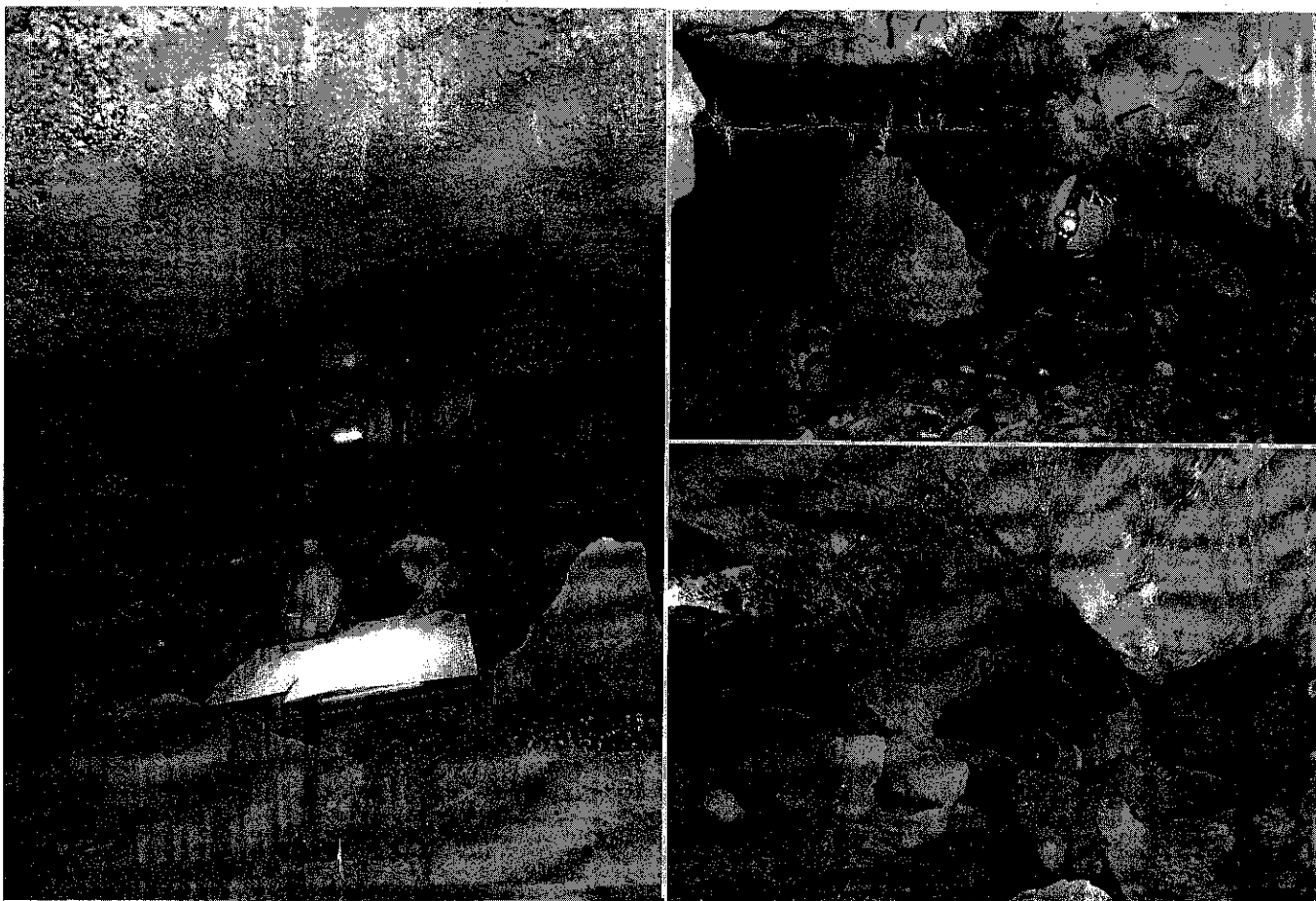
Only four leads produced survey or sketch on the 25th. Lead number 30 was a surface tube that I sketched. Mark and I surveyed BDG Cave (29.25'), which would have been called Break Down Grotto except we already have a Break-down Slope Grotto, and besides, it is almost 30 feet of cave. Alternate Grotto (16.435') was supposedly an alternate entrance of a surface tube, but the other alternative was only three feet long and didn't connect. Unsong Cave (29.5') surveyed by Ed, Paul, and Fred, was the best of the day.

With such a small percentage of leads actually leading to survey the previous day, and me unable to cave because of my ankle, Karen and I went out alone on the 26th to examine the remaining leads and determine which ones actually needed survey. We first surveyed the collapse at Unsong, and then began crisscrossing the flow as we examined each lead to determine if survey was needed. We returned to the RC with six leads that needed survey.

On the 27th, our last day in the field, we all set out to the Balcony Flow to finish off the last six leads needing survey. We were accompanied by Dave Hayes, Chief of Resource Management. Two of the leads quickly connected into the longest cave of the week, Cuddly Cave

(255.02') and kept Mark, Paul, and Karen occupied for most of the day. Dave Hays, Ed, and I surveyed Gary's Cave (37.77'), with Dave Hayes doing sketch. The cave was named for his father-in-law, a former caver who was placed in hospice at the hospital that day. We then surveyed Hay Barn Cave (47.45'), with Ed and Fred taking on the bulk of the work. We proceeded to a nice looking lead with an impressive collapse downflow. I didn't want to risk my ankle on the climb down, so David, Ed, and Fred went down to the lead without me. Their stay was cut short when a fire ring and log were found, and the survey was postponed until Cultural Resources could evaluate the site. Postponed Cave it became. Fred got a 70' disto shot to the back of the cave as they were leaving, and Ed did a sketch map for the inventory sheet. We moved on to our last remaining lead, Under-rated Cave (34'), in the same collapse as Unsong. As this was being surveyed, the other party finished in Cuddly, and we all returned to the RC on its completion.

We had started the expedition with eighty-three leads and documented 24 caves, 13 grottos, and five collapse features. For the bean counters, we had 1,318.485' of underground survey and 474.82' of surface survey. Scans of



Lava Beds, left: Mark Jones in Cuddly Cave. Photo by Paul McMullen. **Upper right:** Karen Willmes in Cuddly Cave. Photo by Paul McMullen. **Lower right:** Paul McMullen in Cuddly Cave. Photo by Mark Jones.

our field notes have already been provided to the monument. Maps will be provided when completed. We will also place scans and completed maps on our cloud server. Original notes will be stored in the CRF archive building at our Hamilton Valley, Kentucky facility. With the exception of Postponed Cave, we are calling the Balcony Flow project finished. When we started the project in 2014, the Monument pro-

vided names and locations of 43 caves, three bridges, and four grottoes. Final count is 110 caves and 51 grottoes on our Balcony Flow map, which became too large at 40 feet per inch to fit a pdf file and was therefore reduced to 50 feet per inch. I haven't added up all the survey done to complete it, but it is a lot, stretching from Bearpaw Butte to Semi-crater with multiple flow paths.

3 Bubbles Cave

Lava Beds National Monument
Siskiyou County, California

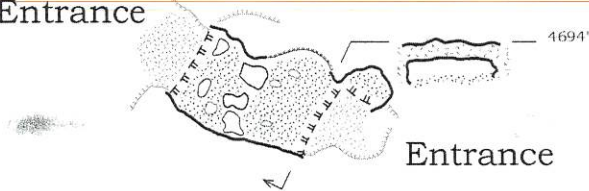
#B298

Surveyed 4/22/2023 by Mark Jones,
Dave West, and Fred Wilkinson of the
CAVE RESEARCH FOUNDATION
in cooperation with the
NATIONAL PARK SERVICE
Cartography by Dave West

Legend

Bedrock Wall/Ceiling	
Breakdown Wall	
Drip Line	
Floor/Far Wall Change	
Breakdown	
Slopes	
Sediment	
Basaltic Flow	
Elevation above Sea Level	4727'

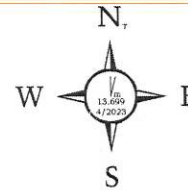
Entrance



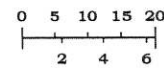
Entrance



Profile View 28° ↗



Feet



Meters

Dimensions given in feet
Survey Length 34.75 feet

Cuddly Cave

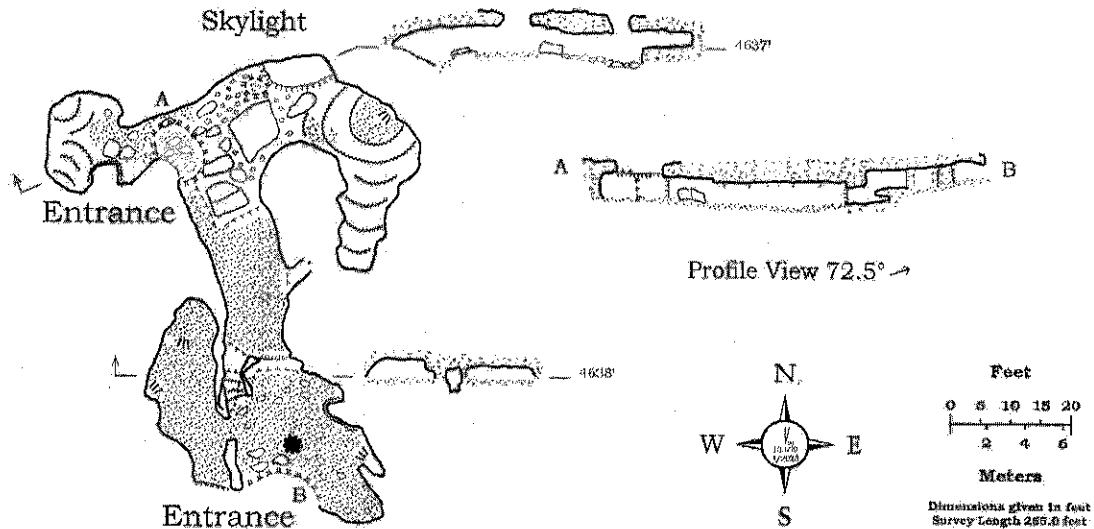
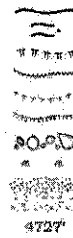
Lava Beds National Monument
Siskiyou County, California

#B154

Surveyed 4/27/2023 by Mark Jones,
Paul McMullen, and Karen Willmes of the
CAVE RESEARCH FOUNDATION
in cooperation with the
NATIONAL PARK SERVICE
Cartography by Dave West

Legend

Bedrock Wall/Ceiling
Continues - Too Small
Drip Line
Pahoehoe
Ceiling/Rear Wall Change
Floor/Far Wall Change
Breakdown
Slopes
Sediment
Basaltic Flow
Elevation above Sea Level



Flapjack Bridge Cave

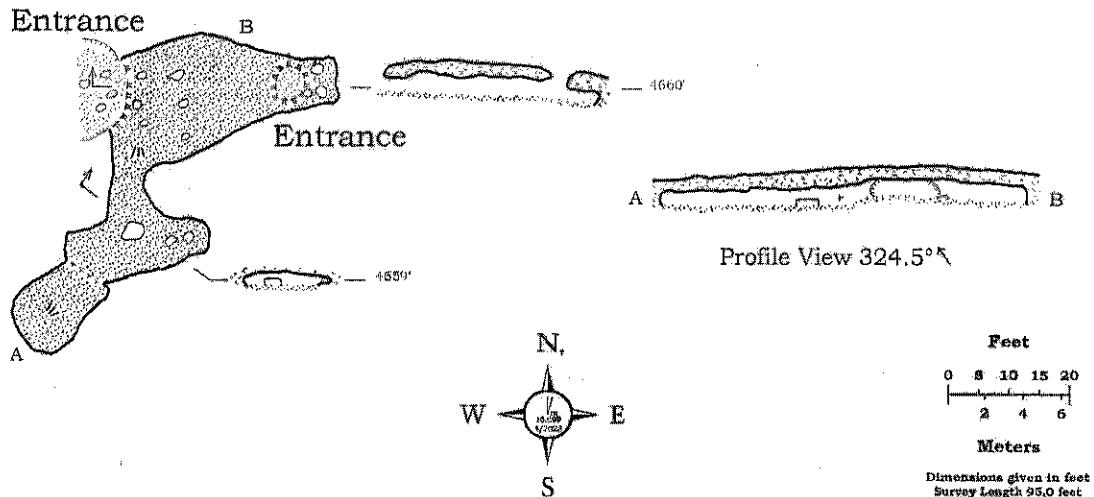
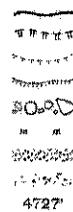
Lava Beds National Monument
Siskiyou County, California

#B407

Surveyed 4/24/2023 by Mark Jones,
Dave West, and Karen Willmes of the
CAVE RESEARCH FOUNDATION
in cooperation with the
NATIONAL PARK SERVICE
Cartography by Dave West

Legend

Bedrock Wall/Ceiling
Drip Line
Ceiling/Rear Wall Change
Floor/Far Wall Change
Breakdown
Slopes
Sediment
Basaltic Flow
Elevation above Sea Level



Craters of the Moon National Monument and Preserve, Butte County, Idaho September 2023, Cave Research Foundation

By: Mark Jones

With four feet of snow blanketing Craters of the Moon National Monument and Preserve in April, the spring C.R.F. Expedition was canceled with hopes that the weather would moderate by the September expedition. We were rewarded with sunny skies for all but the final day of the expedition. Cavers began arriving on the 8th to discuss the objectives with Todd Stefanic, the Wildlife Biologist at the monument. Cavers attending included Matt Beeson, Andrew Erickson, Mark Jones, Paul McMullen, Theresa Schwartz, Michael Schoeneweis, Fred Wilkinson, and Craig Williams. Two Wildlife Technicians, Noa Meiri and Evan Olden, would also be participating during the expedition. A wide variety of caves was offered to the group to allow us to adapt to the situation. The expedition report follows with an archeological report filed separately. Magnetism played havoc on the survey throughout the expedition with some shots taking dozens of readings to rectify and reducing our efficiency.

September 9

Matt, Andrew, Mark, and Fred hiked out the Cave Wilderness trail to begin the expedition surveying two clusters of caves with Matt and Andrew cutting off the trail at the Hidden Cave Complex. They surveyed five caves for over 600 feet. Meanwhile Mark and Fred hustled out another half-mile to their first cave. This was a known bat maternity site that had prevented us from finishing last year. Thankfully the bats had vacated the cave earlier this fall. This survey tripled the length to 450 feet. Nearby a small surface tube was also knocked off. Two new caves were added after that, with one exhibiting signs of pika presence. The team recorded over 500 feet.

September 10

Paul joined Matt, Andrew, Mark and Fred out the Cave Wilderness trail to another two groups of small caves. Matt, Andrew, and Paul garnered over 400 feet in three caves while Mark and Fred surveyed three interesting cave for nearly 500 feet. Previous maps were vastly improved by both groups and doubling the footage.

September 11

On the third day, Theresa, Michael, and Craig went out with Matt and Andrew to survey a perennial ice cave while Matt and Andrew surveyed another cave over the hill. Down the road Mark, Paul, and Fred hiked across the undulating pahoehoe flow to locate a lone cave. On the way back to the visitor center the trio surveyed two other small caves but couldn't find two cave leads. Total survey for the day was 400 feet.

September 12

The entire CRF team as well as the two interns strolled out to continue the survey of the longest known cave at Craters of the Moon National Monument, Arco Tunnel. Matt led Andrew, Noa, Evan, and Theresa to survey the Senate Room area. Meanwhile Mark, Paul, Michael, Fred, and Craig returned to the Forum Room to reconcile magnetic issues in a key loop. After two hours of resurveying the issue was resolved to an acceptable level. Another small loop was added to the map with only the western loop and some small leads remaining. Survey total for the day was nearly 1,700 feet with the Senate survey accounting for 75% of that.

September 13

Three teams were assembled for the fifth day with Theresa, Michael, and Craig along with Noa and Evan returning to complete the survey of the perennial ice cave, Matt and Andrew surveying three small caves beyond the Cave Trail and Mark, Paul and Fred surveying two caves along the Cave Trail. 500 feet was recorded for the day.

September 14

Mark instructed Theresa and Michael on the art of sketching while Paul and Evan worked the Disto-X in a comfortable cave out the Cave Trail. 200 feet was surveyed and two novice sketchers were developed by this team. Matt, Andrew, Noa, Fred, and Craig returned to start surveying some of the eight caves they'd found yesterday. Matt also coached Noa on sketching lava tubes. They got over 600 feet in six caves with five being new caves.

September 15

Andrew, Mark, Paul, Michael, Fred, and Craig trekked out to survey and monitor some smaller caves near the visitor center. One cave was surveyed at 83.2 feet and four other caves monitored for faunal usage.

September 16

Matt, Andrew, Michael, and Fred surveyed two lava tubes, one with several defining lava formations and the other being Boy Scout Cave. Nearly 800 feet was recorded by this team with 600 feet coming from Boy Scout Cave. Mark, Paul, and Craig fought excessive magnetism to survey three other caves for 250 feet. Later Mark and Fred surveyed another small cave for 80 feet.

September 17

Matt, Andrew, Mark, Paul, and Fred hiked out the Tree Mold Trail to survey and inventory one of the few known lava tubes in the north end of the monument that required vertical gear.

A 25-foot drop led to the middle of a 20-foot diameter passage. Nearly 300 feet were surveyed in each direction. Obvious signs of bats using this cave as a maternity colony were noted.

September 18

Matt, Andrew, Mark, Paul, Noa, Evan, and Fred returned to Arco Tunnel to finish the survey of this cave. Matt led the team of smaller cavers to some tight leads while Mark, Paul, and Fred would be in roomier passage in the northwestern area. The longest loop was closed and all the known leads explored. Both groups achieved their goals with the svelte team surveying 500 feet and the husky team getting 700 feet. With the new survey Arco Tunnel clocks in at over 6,000 feet!

September 19

Matt, Andrew, Mark, Paul, and Fred packed up their vertical gear to survey and monitor Rolling Rock Spatter Cone on the Cave Loop Road. This feature was in dire need of an updated map. Andrew dropped first and reported that it was a blind pit. Matt climbed down to map the feature while the rest of the crew remained on the surface. A little over a hundred feet was documented in this cave. With plenty of time left the group hiked out to survey a few caves off-the-beaten-track. Matt, Andrew, and Paul surveyed four surface tubes for over 200 feet and Matt and Fred got another 200 feet in one cave.

September 20

With the departure of Matt, it was down to Andrew, Mark, Paul, Noa, Evan, and Fred to survey some caves discovered earlier in the expedition. Noa, Andrew, and Evan surveyed three small surface tubes and found another for a total of one 150 feet, meanwhile Mark, Paul, and Fred got 200 feet in three surface tubes. Eight new leads were found nearby and another eight leads found on the hike back to the vehicles. The week before there were four known caves in the immediate area.

September 21

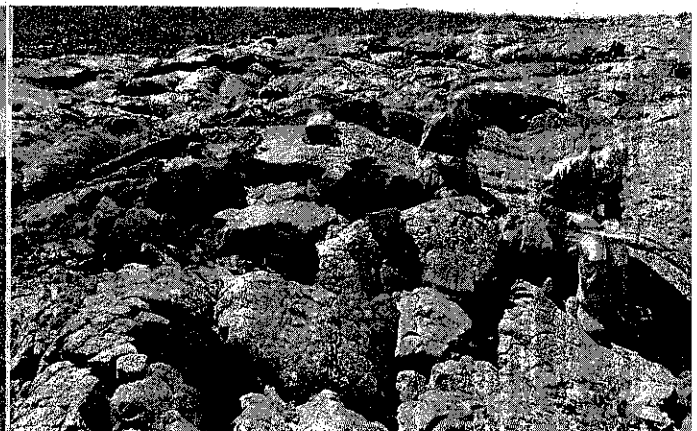
After a rainy night Andrew, Mark, Paul, and Fred stayed close to the paved trail to avoid hiking across the lava fields. With limited options we decided to survey North Fork Cave. This was reportedly 170 feet long but we tripled that, found new passages and connected to Beauty Cave.

September 22

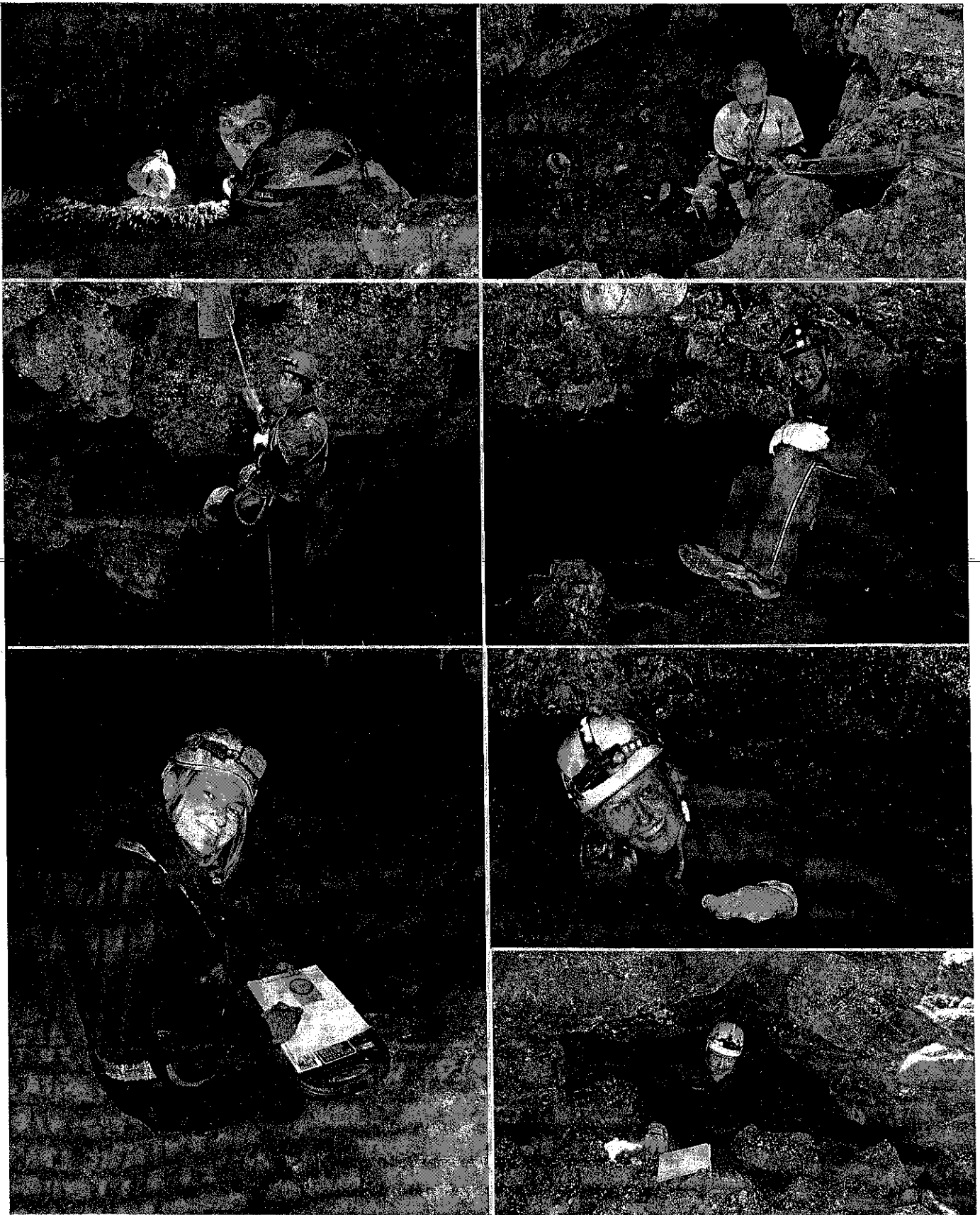
With rain forecast Andrew, Mark, Paul and Fred got an early start for the last day of the expedition. Since we'd connected to Beauty Cave yesterday, we started from this area and worked upflow in a large tube for 200 feet to a low crawl. 300 feet was garnered bringing the expedition total to over two miles of cave survey!

This was a most successful expedition with a great rapport. In fourteen days, fifty-six caves were surveyed for a total of 10,574.4 feet, or just over two miles. The most footage came from Arco Tunnel with 2,959.7 feet dropped down to just 15.8 feet in Greenedge Cave. Thirteen caves clocked in with over 200 feet of survey. In addition, the caves were monitored for biological, geological, and cultural significance.

The Cave Research Foundation team is grateful to Todd Stephanic, the Wildlife Biologist at Craters of the Moon National Monument for providing information on the caves, researching old files, and providing and organizing the cave gear. Noa Meiri and Evan Olden, two Wildlife Technicians were also an asset to the expedition assisting us surveying in the field. Everyone at the monument was helpful during our two weeks of work. A special thanks to Ed Klausner, the Chief Cartographer, for his work as well as Matt Beeson for drafting his maps. On a personal note, I would like to thank Dave Jones for providing fish for the park appreciation dinner and Jody Heggemeier for preparing several meals. Plans are being made to return in the Fall of 2024 to continue the surveying and monitoring of the hundreds of lava tubes and features at Craters of the Moon National Monument.



Left: A view of lava fields at Craters of the Moon National Monument, Right: Matt Andrew on surface; Matt Beeson sketches among numerous surface tube openings. Photos by Paul McMullen.



Craters of the Moon participants, clockwise from upper left: *Evan Olden in a pinch. Photo by Andrew Erickson; Mark Jones on skylight drop. Photo by Andrew Erickson; Andrew Erickson on point. Photo by Paul McMullen; Noa Meiri in a squeeze. Photo by Mark Jones; Michael Schoeneweis in a breakdown entrance. Photo by Mark Jones; Theresa Schwartz on book. Photo by Mark Jones; Matt Beeson on rope. Photo by Mark Jones.*

Ozark Operations Activities, June-September 2023

By: Scott House, with Kayla Sapkota

Summer was a busy time again for us despite the heat. A number of trips were taken in geographically dispersed areas. Many of these trips involved folks from our cooperating agencies.

OZARK NATIONAL SCENIC RIVERWAYS

CRF Ozarks works with the Ozark National Scenic Riverways (NPS) under a cooperative cave management agreement. Trips usually originate from the NPS/USFS shared field office at Winona.

July 10, 2023:

Mark Jones and Kirsten Alvey evaluated a gray bat site on the Jacks Fork River. They did infrared counts plus Anabat detection of emerging bats at dusk. The estimates were more than 6000 bats, which is good.

July 12, 2023:

Mark and Kirsten were joined by Moriah Cramer in monitoring caves in the upper Current River district. The gate on a large gray bat cave was checked and the lock exercised. A float trip on the Current stopped at a well-known cave where Kirsten used a dive light and snorkel to ascertain that blind cave fish and crayfish are indeed using the cave. Later, they attempted bat exit counts at a known bachelor gray colony but were disappointed at the numbers observed.

July 13, 2023:

Mark, Kirsten, Moriah, and Keith Thompson mapped Runaway Boat Cave on the Lower Current District.

July 14, 2023:

A flotilla of watercraft containing cavers descended on the Log Yard section of the Current River. Eleven cavers, led by Mark and Kirsten, monitored a number of caves along that stretch, finishing it off for a couple of years.

July 16, 2023:

Most of the same crew floated another section, monitoring one good-sized cave and performing trash control as they went.

July 17, 2023:

Dan, Henry, and Margaret Lamping, along with Kirsten Alvey, Moriah Cramer and JJ Huel-sing monitored seven caves along another stretch of the Upper to Middle Current. Two of the caves were new finds.

July 19, 2023:

Dan, Henry, and Margaret monitored two caves near Pulltite Spring on the Upper Current District.

July 20-21, 2023:

Scott and Patti House worked on data entry and other duties at the Winona work station.

August 22, 2023:

After a morning presentation session, Scott House and Mick Sutton led 26 land managers and biologists through the right fork of Round Spring Cavern. With that many trained eyes looking for cave life, the results were pretty good with numerous eyed and eyeless salamanders counted, along with a few bats (one rare), and the secretive cave beetle, *pseudonaphtalmus*, making a guest appearance on the exact same piece of wood as last seen seven years previous.

August 27, 2023:

Scott returned to Round Spring Cavern, leading a Speleology class through the cave with an emphasis on geology and biology.

BUFFALO NATIONAL RIVER

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

Reports by Kayla Sapkota

June 17, 2023:

Claty Barnett, Adrian James, Kayla Sapkota, and Aaron Thompson mapped 364 ft in Fitton Cave, working on various mop-up tasks in Fitton Cave. Ben Damgaard, John Davis, Jennifer Ellis, and Erik Stinnett mapped 105 ft in Fitton Cave, mapping a tight, muddy hole and lower-level stream passage requiring vertical gear in Helictite Passage. Treavor Bussard, Caleb Schlager, Hannah Schlager, and Jessica Shue added passage detail to the Lloyd's Low Lead area in Fitton Cave before being filtered out due to passage size.

July 1, 2023:

Ben Damgaard and Kayla Sapkota fixed a tie-in in Helictite Passage in Fitton Cave before continuing working on leads in New Maze, netting 321 ft. Dan Lamping and Corey Ellis mapped a lower side lead off the Tennouri Room before traveling to the New Maze area to leapfrog Kayla's team, adding 361 ft of survey. Meghan Gallo, Maya Robles, and Derek Thompson visited the Lloyd's Low Lead area of Fitton Cave, adding additional floor detail to the older sketches and pushing a bit further than last month's team; after, they met Kayla's team in New Maze, helping to tie two canyon levels before surveying another 74 ft at the end of Dan's survey.

August 1, 2023:

Matt Beeson, Bud Beeson, and Mike Beeson started the day with plans of mapping in Tom Watson Bear Cave but were thwarted by some steep terrain at the angle of approach. Saving the trip for another day, they headed to Mike's

Maze Cave and mapped 331 ft to mark another target off the list.

August 2, 2023:

Matt Beeson, Bud Beeson, and Mike Beeson mapped 5 caves in the Sneed's Creek area: Sneed's Creek Cave, Sneed's Creek Cave #2, Wise Crack, Tiny Crack, and Side Crack, netting 289 ft of survey.

August 4, 2023:

Matt Beeson and Mike Beeson mapped Overlook Cave and Moonrock Cave in the Cliff Hollow area, netting 107 ft of survey.

August 5, 2023:

Laura Baumann, Ben Damgaard, John Davis, Kevin Liow, Christine Saw, and Erik Stinnett mapped 260 ft in the New Maze Area of Fitton Cave. Kayla Sapkota, Emily Roberts, and Audrey Odannal mapped 327 ft of a complex middle level in Lower East.

August 12, 2023:

Claty Barnett, Kayla Sapkota, Keeva Sapkota, and Aaron Thompson monitored Valley Y Cave and mapped Steel Creek Shelter before settling into cleaning and organizing the cabin on a hot summer day. That afternoon, Claty Barnett, Meghan Gallo, Derek Thompson, Keaton Thompson, Novinha Thompson, and Aaron Thompson monitored Steel Creek Campground Cave, noting recent graffiti and misuse, which was later reported to the NPS. Jim Harmon and Kayley Reedy joined the crew in the later afternoon, with more gear-inventory, organizing, cleaning, and other grunt work being completed at the facility to round out a productive work weekend.

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 four forest districts: Ava, Houston/Rolla, Willow Springs, and Eleven Point.

July 11, 2023:

Mark Jones and Kirsten Alvey monitored a bunch of caves on the Eleven Point District, particularly a cluster of short caves that are possible cultural sites. They also installed a fix on an existing cave gate.

July 15, 2023:

A flotilla headed down the Eleven Point River, monitoring caves along the way. Included in the entourage were Mark, Kirsten, J. J. Huel-sing, Marissa Schorr, Dennis Novicky, Krista Bartel, plus about seven more temporary JV's from Windy City Grotto.

July 19, 2023:

At Winona, Mark Jones and Kirsten Alvey began assembling gear for a gating effort.

July 20-24, 2023:

Mark, Kirsten, Dennis Novicky, Charli Summers, Krista Bartel, and a host of help from US Forest Service staff re-gated Cave Hollow Cave on the Potosi District, Iron County, MO. The new gate replaces an older, less bat-friendly, gate that had been breached. On the 22nd, Kirsten, Mick Sutton, and Sue Hagan did an updated bio inventory of the cave as part of the project.

July 25, 2023:

Mark and Dennis spent the day at Winona, cleaning and repacking the welding gear.

August 25, 2023:

Dennis Novicky fabricated and installed yet another fix on the recalcitrant cave gate in the Eleven Point District.

L-A-D FOUNDATION

CRF works with L-A-D Foundation and their wholly-owned arm, Pioneer Forest, to help manage caves on their lands.

July 18, 2023:

Dan, Henry, and Margaret Lamping plus Kirsten Alvey and Moriah Cramer monitored Big Dugan Cave on Pioneer Forest land in Shannon County.

August 22, 2023:

Scott House and Mick Sutton made presentations at a LAD sponsored Conservation Opportunity Area meeting at Echo Bluff State Park. Some 35 land managers and biologists were present representing every land management group in the Lower Ozarks area. This was followed by a field trip to Round Spring Cavern.

MISSOURI DEPT. OF CONSERVATION

CRF and MSS work under unfunded permits to collect survey data on MDC lands. Ancillary support comes from CRF and cooperating federal agencies.

July 18, 2023:

Matt Beeson led a group of Springfield Plateau Grotto mappers plus MDC staffers to a cave on private lands in Newton County. The owner had asked for an evaluation of this cave as part of a stewardship plan.

July 24, 2023:

Max White led Jon Beard, Ashley Mitchell, Heather Pule, and Jarod Ozee on a monitoring trip to Little Smittle and Lowell Caves in Wright County on the Fuson Conservation Area. Several MDC staff went along as well for the experience in lands they manage.

August 19, 2023:

Two crews went into Powder Mill Creek Cave, Shannon County. This is the longest cave on MDC land, and one of the most spectacular in the state. One hardy crew headed to the far reaches upstream to retrieve a climbing pole



Ozarks, clockwise from upper left: Removing a bat-unfriendly gate at Cave Hollow Cave; Dennis Novicky figures out the lock box for the replacement gate on Cave Hollow Cave; Forest Service staffers drilling a hole for a new gate at Cave Hollow Cave; Mick Sutton emerges from a mud/water crawl; Cave salamander in Round Spring Cavern. Photo by Susan Farrington; Mark Twain National Forest biologist Andy Radomski in Cave Hollow Cave. Photos by Kirsten Alvey except where indicated.

that had been left nearly 20 years earlier during the CRF mapping effort. Dan Lamping led this team, which included Joe Sikorski, Nathan Curran, Josh Hafner, Krista Bartel, Dennis Novicky, Jen Sutherland, Cathleen Yung, Marissa Schorr, Rob Lawson, and Corey Ellis. The trip objective was met: Dennis had brought a hacksaw and the thing was sawed into pieces and removed by all concerned. On the way out a side lead was examined and found to continue for some distance.

A second team did bio-monitoring in the first mile of the cave. Scott House led Derik Holtmann, Keith Thompson, Shelby Timm (MDC), Megan York (USFS), and Emily Dietz (USFS) looking for aquatic obligates like cave fish and crawfish. Neither of the blind species have previously been noted in this extensive stream cave and neither were seen on this date.

ELSEWHERE

This includes trips done on US Army Corps of Engineers lands and private lands. Some of this work is funded and some is not. Some of the

protection efforts may be funded by CRF, MO Dept. of Transportation and other sources.

July 10, 2023:

Scott House accompanied a Missouri Dept. of Transportation staffer to inspect the area around a newly mapped pit in Cape Girardeau County.

July 14, 2023:

Jim Cooley did an inspection on the Toby Cave gate for the Fish and Wildlife Service, mostly to see if the maternity bats were happy with the new gate. He reports they were.

August 24, 2023:

Mark Jones, Dennis Novicky, and Kirsten Alvey worked on more gate repairs and other issues relating to the Sodalis Nature Preserve in Hannibal MO.

September 16, 2023:

Scott House led a nostalgic carbide-only trip into Berome Moore Cave. Participants included Tony and Mary Banta Schmitt, Lawrence Ireland, and Alex Litsch.

Powder Mill Creek Cave: Climbing Pole Extraction Trip

By: Corey Ellis

Excerpt from an email sent out by Dan Lamping on 7/30/23:

There is a trip in the works to Powder Mill Creek Cave for August 19. Powder Mill is the longest known cave in Shannon County with over 8 miles of beautiful passage. It's truly one of the great caves in the state. The cave is a significant bat cave owned by [Missouri Department of Conservation] and is therefore usually closed. Survey work in the cave was wrapped up nearly 20 years ago and since then there have been very few trips.

When the survey was near its end, a climbing pole was carried into the far reaches of the cave to access a potential high lead. The lead did not go and the pole still remains. It's been a goal to get it out. It's probably fortuitous that it's been left in there since it gives present day cavers an excuse to get to see the cave. A group of us tried in 2016 (I think) and struggled with finding the route to the back of the cave. We turned around as team members began to get chilled due to not having thick enough wetsuits. Getting to the back of the cave involves wading through some deep pools, walking through beautiful passage, several long water crawls and climbing up some beautiful waterfalls.

After receiving this email I immediately expressed my interest in joining. It sounded like a great opportunity for a long and challenging trip to the very back of the 6th longest cave in Missouri. Dan distributed 3 of the 4 map sheets (the 3rd and 4th sheets are still only partially draft-

ed) along with a written description from George Bilbrey who was one of the primary surveyors ~20 years ago. George was also the one who originally fabricated the climbing pole (using sections of automobile mufflers) and helped transport the poles to the back of the cave along with Doug Baker (project lead) and Steve Irvine.

The objective for the trip was to navigate to the back of the cave and attempt to cut down the poles with a hacksaw. A successful trip would simply be making it to the poles and getting a start at moving them out, with the realistic expectation that this project would take additional trips to complete in entirety. A separate team would also be conducting a bio inventory of the first ~4000' of the cave before the first water crawl. I spent some time studying the route and making an annotated laminated map to help navigate in the cave.

I headed toward the town of Winona, Missouri from Kansas City at 5:30pm on Friday. The Cave Research Foundation has a cooperative relationship with many governmental agencies in the Ozarks region. The Winona facility is owned by the US Forest Service and would be our home for the weekend. The former Powder Mill Creek NPS facility closer to the cave was unfortunately destroyed by catastrophic flooding back in April of 2017. I am told that a significant amount of CRF property was also lost along with the facility itself.

I arrived at Winona at 10pm. It was my first visit there, having bowed out of a trip oppor-

tunity back in November of 2022 due to an injury. I was greeted at the Ranger House by Marissa Schorr, Jen Sutherland, Cathleen Yung, and Josh Haffner. A few others were staying at the adjacent Annex building. After signing in, I set up my bed in one of the upstairs bunk rooms. Dan Lamping, Joe Sikorski, Derik Holtmann, and Nathan Curran arrived later on. I headed to bed earlier than most around 11:30pm.

Scott House had breakfast ready in the Annex building before 7am. Eventually the bio inventory team drove over to the cave. They planned to get an earlier start before the other team came through and potentially disturbed any organisms in the water. Cave adapted fish and crayfish have been identified in many other caves in the region but have reportedly never been found in the Powder Mill Creek system. So they planned to move slowly through the first mile of the cave in hopes of spotting one.

The pole retrieval team consolidated vehicles and departed Winona around 8:30. It was a ~20 minute drive to the parking area for the cave, which was filled to the max with vehicles after we had arrived. Fortunately, the summer temperatures had dropped a bit ahead of the next heat wave which made the short wetsuit hike over to the cave quite bearable. We reached the spring entrance at 9:30. Water flows out of the mouth of the cave for about a mile down Powder Mill Creek and feeds directly into the Current River.

All 11 of us piled into the cave and began wading through the decorated borehole. We passed a few old beaver dens up on the right side of the stream bank. The passage averaged 30' wide by 20' high at first with mostly shallow wading. The further we went, the passage became even bigger and more highly decorated. The water was noticeably clear, even in some deeper undisturbed pools which had a nice blue color. Thanks to the steady flow of water out of the cave, there is no boot sucking mud on the floor, which is quite the contrast to the long slogs down the rivers in Carroll Cave.

We continued further down the passage and the ceiling rose up to a 30' tall canyon just after a bend to the left. The walls were decorated with the black/white/orange flowstone combinations that I have noticed to be characteristic of the Ozarks. The sounds of shallow water rushing through the black chert bedding on the floor could be heard just before we reached the first waterfall at 10am. The clear blue water at the base of the short waterfall was gorgeous.

We never did spot the "Hell Hole" which is an obscure low-airspace infeasible that opens up to an entirely different section of the cave. I didn't go out of my way to seek it out, but it still seems to be fairly elusive. Past the first waterfall, the cave eventually became highly decorated once again with some very tall multi-colored flowstone formations coming down from the ceiling. Dan reported that in 2016 the

formations were raining down water, but they were mostly dry on our visit. By 10:15, we reached the first water crawl. It is fairly short at around 300' and I believe I still kept my upper body dry without putting on the top half of my wetsuit yet whereas most people were fully submerged in their wetsuits and floating through the passage.

After the first water crawl, we traversed some mostly dry borehole and took our first break at 10:45. After a brief bit of route finding, we arrived at the second water crawl. This one was a bit drier than the first, but still contained a few deeper pools. It was also around 300' long like the first one, but with more chert beds and gravel. At the end of the crawl, you are rewarded with another slightly taller waterfall followed by a decorated area known as "The Cloisters". This area contains many large flowstone formations eroded in interesting ways. Horizontal bands run all along the entirety of many of the already wavy formations creating a unique texture. We took a longer break in this area before continuing.

Initially from reading George's notes, I was under the impression that the third water crawl didn't start until a bit later, but it started almost immediately after The Cloisters. Upon reading the notes again, I see now that the full extent of the crawl is around 3000' long (from ~6,500' into the cave until 9,500' into the cave), so about 10x the length of the previous water crawls! At one of the little domes in the beginning of the third water crawl where I could sit up, I finally decided to put on the rest of my wetsuit.

From here we were pretty much entirely submerged in the water for a long time. Floating along wasn't too bad and the current was practically negligible. The ceiling varied from soda straws, to small curving draperies, to corn dog looking formations. There were eventually a few ear dipper sections. One was particularly gnarly at around 3". I was taking video of Rob going through it just as Dan arrived and directed everyone over to the right side where



Marissa Schorr navigates a low air space in Powder Mill Creek Cave. Photo by Corey Ellis.

it was a bit easier. Cathleen was not amused. We continued ear dipping along in the inverted corndog forest until we reached the start of the K-survey (Right Fork).

The Right Fork is still 1000' shy of the end of the third water crawl. The infeeder passage was surveyed during a drought year for around 1500' until the passage lowered to 1' tall with 7" of airspace. The survey was headed directly under Powder Mill Creek and trending toward the next major ridge. Back at Winona, Dan had asked if I would be interested in checking the lead and I tried to recruit a few people but I wasn't met with much enthusiasm. While we were all discussing it at the intersection in the cave, Dennis Novicky agreed to join me. Dennis and I tied our packs to a natural anchor in the ceiling around 12:30pm and the rest of the group continued further into the cave.

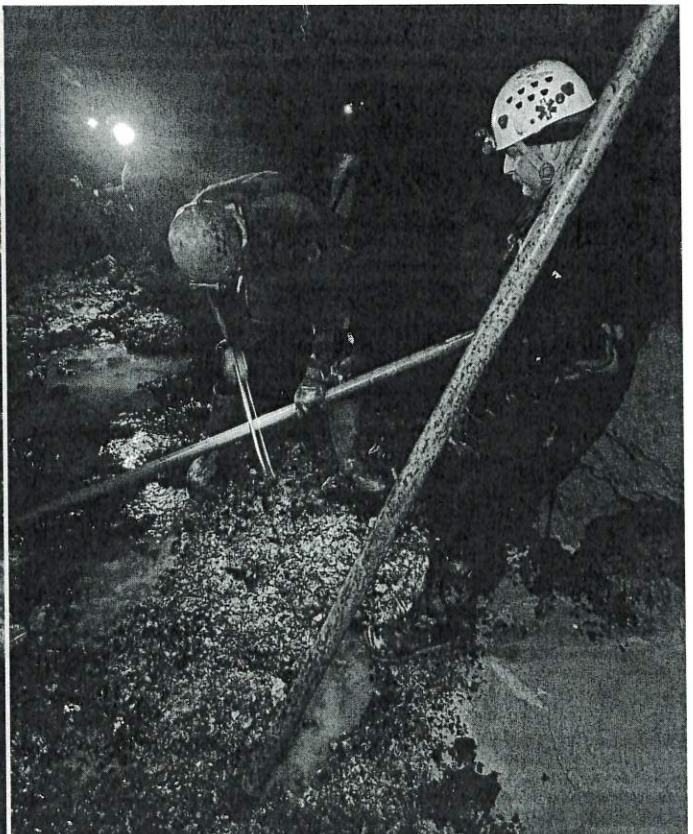
Dennis and I started down the passage which was surprisingly comfortable at first. Eventually we reached the low airspace where the survey had ended and we took turns leading ahead. It was probably the longest sustained low airspace crawl I've ever done but fortunately the passage was very wide and not too tight. My head was sideways and one eye closed. As long as I avoided that subconscious fear of not being able to turn my head 180 degrees I was able to keep my cool. We reached a small dome area where we could both sit side by side before continuing ahead. I let Dennis take the lead on the final

push. There was some hesitation at first and it just looked like it was doing more of the same, but as we rounded another corner I heard Dennis announce that he saw it was opening up!

The exploration consisted of some decorated passages. We returned to the main passage and then continued for the final 1000' of the third water crawl so we could get out of the water first. We got some food and water in us around 2pm before continuing further into the cave.

The passage ahead was my favorite in the cave. It wasn't enormous, but was pretty much entirely walking sized passage. The walls were chaotically scalloped into fragile appendages. Formations of every kind were plentiful. There was one particularly impressive display of helictites. Soda straws grew down at swaying angles. Some bacon draperies formed at the bottom side of a black block of chert in white and tan which made for an interesting contrast of colors.

At some point, we reached the fourth water crawl, which was another 1000' of tedious floating. At the hustling pace to catch up with the group, I tried out different techniques to work different muscle groups such as floating on my back and using my heel to kick myself ahead. As we got further, we would find random items from the group stashed along the way as if they were leaving us little breadcrumbs to help us find our way back to them. As we approached the end of the fourth water crawl, I could hear



Left: Waterfall in Powder Mill Creek Cave. **Right:** Sawing up a climbing pole in Powder Mill Creek Cave. Photos by Corey Ellis.

voices ahead. We had managed to catch up with the group. We took a bit of a rest, but others had already continued further into the cave.

After another 500' of easy walking passage, I reached the climbing poles. At first there was a bit of confusion, as we thought there were supposed to be 3 (there were 2) and they were supposed to be left near a high lead (we didn't see one). Others had already continued deeper into the cave, so I went ahead to try to catch up. As I went, I kept passing by people turning around and calling it quits. Eventually I reached Joe and Nathan who were the final two and went the farthest. They had reached the start of the 5th and final water crawl and decided to turn around.

Back at the climbing poles, we realized the high lead was in fact right there. A slope along the back left wall went up and a very enticing lead took off 25' up a steep mud slope. It looked as if I wouldn't have much trouble climbing up the slope with the assistance of a rock hammer and carving out a few footholds along the way up. But the climbing pole had already served its purpose and the lead had been surveyed. The poles were surprisingly not that rusted and were still completely intact without any water having made its way inside. However, unlike the reports we received, they did **not** float.

It was 4:30pm when the hacksaw was taken out and Josh went to work cutting the poles. I was surprised at how quickly he managed to cut through them. The inside of the poles looked (and smelled) as fresh as they probably were when they were procured in the early 2000s. After they were cut in half, it was decided the best course of action would be to cut them in quarters so they would be small enough to fit in our packs. But first, we duct taped around the sharp edges to ensure they wouldn't damage anything. I put two in my pack, Joe took 2 in his, Dan carried one, and 3 segments wound up in an old yellow drybag with webbing and rope that the original explorers also left in the cave. Cathleen and Nathan took turns hauling it, but Nathan pretty much muscled it all the way through the third water crawl solo.

Given that it took the group about 7 hours to get to the back of the cave, I figured we'd be looking at an exit around 11 or possibly midnight. I spent a bit of extra time taking photos and videos of the really nice passages upstream of the third waterfall that I explored with Dennis without my phone accessible. The third water crawl was an eternity. Fortunately, my pack floated which made the 3' of metal pipe not add significant resistance as I pulled it behind me. But each time we had to crawl over a gravel bar or segment of dry passage, it was like a ball and chain weighing against me. Cathleen was channeling lots of externalized rage in order to power through it. All in all there was a fair bit of complaining, but overall spirits were still high. The only break we took was at the second waterfall just past the Cloisters around 7:30pm. The first wave managed to exit the cave around 9pm, ~5 hours from the back of the cave, a much faster pace than on our way in. Krista and Jen were there just inside the entrance waiting for us. They had been hanging outside for several hours but eventually came back into the cave around the time they expected we'd be arriving.

All the segments of the pole were successfully extracted, along with the old torn up drybag of webbing and yellow death rope. We exceeded our expectations of success with a great deal of effort. Looking more closely at the notes, I calculate a cumulative ~9200' of water crawling between the 8 (roundtrip) water crawls. That's 1.74 miles of water crawling! Oddly enough, my fingers seem to be sore from using them to pull myself forward on the floor while floating through the water crawls, that's a new sensation. It was a roughly 5.5 mile round trip, plus an extra ~1 mile for Dennis and I checking the right fork.

We made it back to Winona and chowed down hard. Another unforgettable trip. Now the fun part will be going back and somehow managing to survey through that low airspace in the Right Fork. There is also one final unchecked lead a couple hundred feet before where the poles were stashed. Perhaps another day.

Mammoth Cave: Independence Day Expedition, June 30-July 9, 2023

By: Dave West and Karen Willmes, Expedition Leaders

We had 56 participants and fielded 40 parties in Mammoth and other local caves. The high water levels, heavy rain early in the week, and continuing threat of thunderstorms affected our choice of objectives. 37 teams caved inside the park. Of those trips, two trips provided park-requested support, six trips supported the small cave inventory, and 35 trips contributed to cartography. Some trips supported multiple projects. This amounted to 1,215 volunteer hours or 129 people days.

Five parties worked in Great Onyx Cave, eight trips went to the New Discovery section of Mammoth Cave, four parties used the Historic Entrance, three parties entered Colossal Cave, three parties used the Elevator, five parties went in the Austin Entrance, five parties used the Carmichael Entrance, and one party went to the New Entrance. Besides Great Onyx, the other small caves worked on were Running Branch Cave, Hunts Sink Pit, and Powerline Cave.

For park-requested support, one trip went to Running Branch Cave to try to get into the cave and look for cave life and shark teeth. The cave hadn't been entered since 2016, so the lock, as suspected, was difficult to open. They found abundant spiders, salamanders, flies, crickets, and other critters, but no shark fossils. Another party went in the Austin Entrance to help Chris Groves from Western Kentucky University look for fluorescent minerals in Turner Avenue. Using UV light, they found a number of examples of purple and green fluorescence near Old Granddad.

In addition to the trip with Chris Groves, four teams worked on various survey objectives in Unknown Cave using the Austin entrance. One mapped an area of small canyons off Grund Trail (65 feet new, 157 feet resurvey). Three teams traveled together to the end of Swinerton. Two of them surveyed in the multilevel Canyons of Absolon (228 feet resurvey). The third found the route down Bogli Shafts and set up for future resurvey of Penck Trail and Blue Tube (108 feet resurvey).

Three parties went to the Colossal Entrance. One team looked at the Hazen Loop where it might connect to the Hazen Entrance, and then did replacement survey in the Belfry area (111 feet new, 198 feet resurvey). Two parties did mop up survey along the Helictite Route (237 feet new, 452 resurvey).

A team went in the Historic Entrance to investigate two small leads near Dead Sea. They used an extension ladder to reach the leads, but neither went (20 feet new, 55 feet resurvey). Two teams went out to Further Carlos Way to resurvey some of the low passages there. One finished all their leads; the other left continu-

ing, but grim, passage (735 feet resurvey). A team went in to evaluate the rigging at Lee's Cistern, but failed to find it.

In New Discovery, one team worked on replacement survey of the Roaring River Route, where they found some deep mud (215 feet new, 173 feet resurvey). Another team finished replacing a survey near the China Wall (29 feet new, 371 feet resurvey). Two parties worked on resketching a complicated part of the cave between Big Avenue and Gypsum Avenue (110 feet new, 49 feet resurvey). Four teams headed to New Discovery West to find and replace some surveys done by John Wilcox (the original cartographer) in 1973 (2,578 feet new, 1,199 feet resurvey). Their goal was to resurvey the main borehole and investigate potential leads.

Using the elevator, three parties went to El Ghor to work on the resurvey and finished it (2,239 feet resurvey).

Three teams went to the Cathedral Domes area using the Carmichael Entrance since the Elevator was down. One party climbed the rope and continued the resurvey of Cathedral Domes (42 feet new, 902 feet resurvey). An epic number of Ozarks Operations Area personnel split into two parties and worked on data reconciliation and sketch enhancement in Genies Pass and Bransford Avenue (37 feet new, 24 feet resurvey).

Another two parties went in the Carmichael Entrance to reach the end of Serena's Arbor and replace the survey leading into a place called Jenny's Icebox (40 feet new, 152 feet resurvey). The passage is very cold but intriguing because of the air that blows through it. There's an 8.5-inch squeeze to negotiate. The heavy rain turned the drop into a waterfall. A rock slumped into the crawlway after everyone exited (and was removed on a later trip). In spite of some moments of concern, everyone successfully negotiated all of these obstacles.

One party checked and surveyed leads near the New Entrance (45 feet new).

In Great Onyx Cave, two parties worked on locating and resurveying the upper-level S survey, a notoriously tight and convoluted canyon (118 feet resurvey, 15 feet new). One party drew a profile of the well-decorated Attic and Den of Thieves. One party continued working on the Stairway Crawl shortcut, also doing some mop-up survey (145 feet new, 102 feet resurvey). A team attempted to survey a lead near where the boat dock used to be, but found it too tight and awkward for their party (23 feet new, 19 feet resurvey).

A party went to Powerline Cave/Pit, hoping to connect it to Great Onyx Cave. They surveyed 70 feet and saw a single Rafinesque bat, but did

not find a connection. Another small cave team finished the resurvey of Hunts Sink Pit by using a grappling hook to pull themselves to the lead (107 feet resurvey).

Total survey footage inside the park was 11,167.72, of which 2,402.85 was new survey and 8,764.87 was resurvey. That's over two miles! An additional 259.5 feet of new survey was collected outside the park.

Outside the park, two teams had permission to investigate and map the caves on the property of C. D. Church, next to the park. They finished surveying all the caves (259.5 feet new). Another team worked on Stan's Well.

The rain held off for the Fourth of July, so Dave West was able to put on his annual display of fireworks. Pat Kambesis and Bill Koerschner cooked chicken barbecue for the occasion. Pat also took care of breakfast that day.

Special thanks to Joe Walko, who helped with cooking and cleaning for five days; Ed Klausner, who helped in the kitchen; Elizabeth Miller, who took me shopping and helped cook; Spike and Isabel Crews, who cooked whenever asked, especially cakes; Sue Hagan, who shopped for and cooked pizzas that were better than frozen.

Unknown Cave - Grund Trail: Spike Crews, Krista Bartel, Kohl Mitchell, Dennis Novicky; **Canyons of Absolon:** 1) Chad McCain, Jennifer Sutherland, Cathleen Yung; 2) Joe Sikorski, Nathan Curran; **Bogli Shafts:** Dan Lamping, Spike Crews, David Socky; **Old Grand Dad:** Rick Toomey, Matt Mezydlo, Anastasiya Razumovska, LJ Risteski, Chris Groves, Cristen Olson, Elek Olson, Kathryn Harris

Colossal Cave - Hazen Loop and Belfry: Tom Brucker, Michael Raymond, Ian Flom, Anastasiya Razumovska; **Helictite Route:** 1) Tom Brucker, David Socky, Megan Harder; 2) Tim Green, Elizabeth Winkler, Mykah Carden, Nathan Curran, Izzie Sonora

Mammoth Cave - Dead Sea: Ed Klausner, Tim Green, Megan Harder; **Lee's Cistern:** Derek Bristol, Hazel Barton, Kevin Manley, Jessica Van Ord; **Carlos Way:** 1) Derek Bristol, Hazel Barton, Jessica Van Ord; 2) Kevin Manley, Jimmie Sager, Anastasiya Razumovska

New Discovery - Roaring River Route: Bill Koerschner, Troy Walls, LJ Risteski; **China Wall:** Bill Koerschner, Michael Raymond, Megan Harder; **Gypsum Avenue:** 1) Mick Sutton, Megan Harder, Michael Raymond; 2) Mick Sutton, Karen Willmes; **New Discovery West:** 1) Derek Bristol, Hazel Barton, Jimmie Sager; 2) Jessica Van Ord, Kevin Manley, Megan Harder; 3) Hazel Barton, Jenny Tison, Megan Harder; 4) Bill Koerschner, David Socky, Bob Alderson

Mammoth Cave - El Ghor: 1) Elizabeth Winkler, Elizabeth Miller, Izzie Sonora, Troy Walls; 2) Elizabeth Winkler, Ed Klausner, Mykah Carden; 3) Elizabeth Winkler, David Socky, Bob Alderson, Em Michael, Sue Hagan

Mammoth Cave - Cathedral Domes: Chad McCain, Jennifer Sutherland, Cathleen Yung, Nathan Curran; **Genies Pass and Bransford Avenue:** 1) Kayla Sapkota, Cathleen Yung, Claty Barnett, Chad McCain, Jennifer Sutherland; 2) Spike Crews, Isabel Crews, Dan Lamping, Joe Sikorski

Mammoth Cave - Jenny's Icebox: 1) Bill Koerschner, Tim Green, Mary Schubert, Brandi Allen; 2) Bill Koerschner, Bob Alderson

Mammoth Cave - New Entrance: Kayla Sapkota, Claty Barnett, Dan Lamping, Megan Harder

Great Onyx Cave - S Survey: 1) Dennis Novicky, Krista Bartel, Kohl Mitchell; 2) Dennis Novicky, Krista Bartel, Kohl Mitchell; **Attic Room:** Spike Crews, Brandi Allen, Isabel Crews; **Stairway Shortcut:** Bob Alderson, Bill Koerschner, Megan Harder; **Boat Dock:** David Socky, Bob Alderson, Matt Mezydlo

Hunts Sink Pit: Michael Raymond, Ian Flom, Joe Sikorski

Powerline Cave: Kohl Mitchell, Krista Bartel, Dennis Novicky

Running Branch Cave: Rick Toomey, Rick Olson, Spike Crews, Mary Schubert, Anastasiya Razumovska

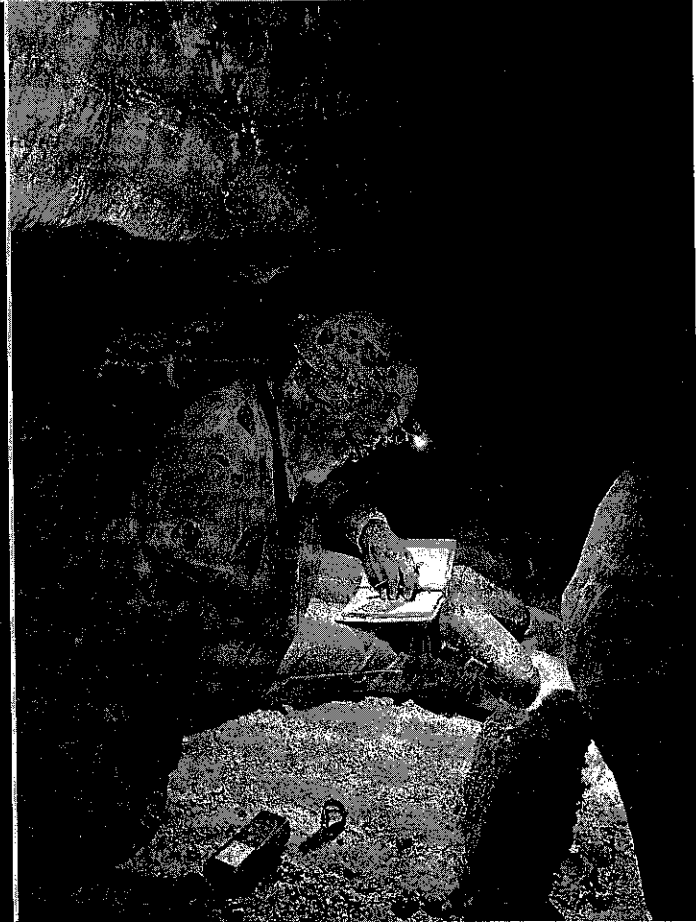
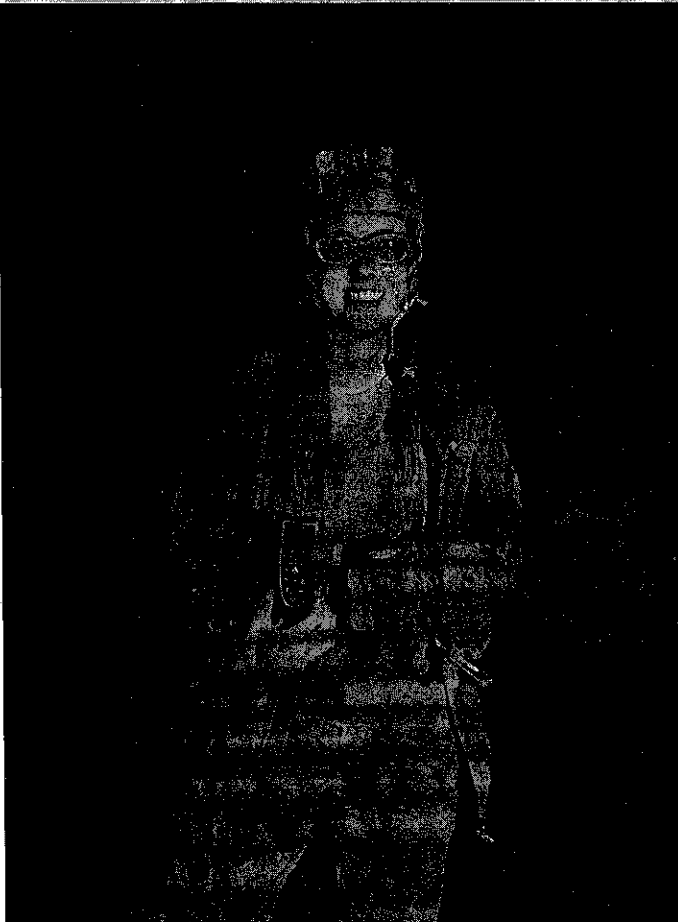
C. D. Church's property: 1) Spike Crews, Isabel Crews, Michael Raymond; 2) Tom Brucker, Elizabeth Winkler, LJ Risteski, Spike Crews, Anastasiya Razumovska

Stan's Well: John Feil, Stan Sides, Kay Sides, Dick Mar- ket, Rick Olson, Chuck Schubert, Isabel Crews



This page, left: Megan Harder checking a lead in New Discovery. Right: Michael Raymond in New Discovery. Photos by Megan Harder.

Next page, clockwise from upper left: Jimmie Sager, Jessica Van Ord, Kevin Manley, Derek Bristol, Hazel Barton in New Discovery; Jessica Van Ord sketching in New Discovery; Bill Koerschner sketching; Megan Harder. Photos by Megan Harder.



Mammoth Cave: August Expedition, August 2-5, 2023

By: Scott House

The purpose of the expedition was focused on: mopping up leads, fixing bad data and sketches in the Cathedral Domes area; initiating a new phase of the Gazetteer project; polishing off unfinished business in Colossal and Great Onyx; and supporting work on New Discovery cartography. The cave got longer, proving that if you recheck or resurvey known areas, you will almost always find more cave passage that has been overlooked or ignored.

Wednesday, August 2

Scott House, Kirsten Alvey, Mykah Carden, and Karen Willmes went out to the Boone Avenue area of Cathedral Domes. They put in a hundred or so feet of survey (old survey lost), then worked on adding photographs of Gazetteer place names. Lastly, a chunk of the tour trail map was revisited in order to get changes made that reflect the new tour infrastructure.

Bill Koerschner, Mark Brooks, and Anastasiya Razumovska went out into Franklin Avenue to access a passage headed for New Discovery. They added 250 feet on new passage plus another 570 feet of resurvey.

Thursday, August 3

Mark Brooks took Mykah Carden and Ian Flom out to Pilgrim Avenue in Cathedral Domes to polish off leads, make a tie or two, and proof the working map.

Mick Sutton, Sue Hagan, and Kirsten Alvey went to Kentucky Avenue and worked on 1) photos and descriptions for the Gazetteer, and 2) resketching of the tour route improvements.

Friday, August 4

Scott House, Shelby Proctor, Gretchen Asselmeier, and Mykah Carden went out Robertson Avenue to start resurvey of a side passage that needed better data and sketch. This trip also served as survey school, with Gretchen and Mykah shadow-sketching as we went. They also obtained more photos for the Gazetteer. They ran out of time to complete but it was covered the next day.

Mick Sutton, Sue Hagan, and Laine Roberts continued the work in Kentucky Avenue (Gazetteer photos and resketching the tour trail).

Bill Koerschner, Ian Flom, and LJ Risteski went in New Discovery and polished off leads in the China Wall area.

Dave West and Karen Willmes went to Colossal Cave where they polished off leads and fixed ties. The long walk to the entrance was exacerbated by new deadfall in the woods.

Saturday, August 5

Reinforcements arrived! Dan Lamping, Henry Lamping, Valerie Lamping and Margaret

Lamping, surveyed a lower level of the previous day's passage off of Robertson.

Gretchen Asselmeier led Heidi Asselmeier, Shelby Proctor, Mark Brooks, and Anastasiya Razumovska to the same passage as the Lamping clan. They finished the resurvey and then went up Carries Pass to check potential leads in a side passage off of it. The additional purpose of this trip was to get more people familiar with the whole area, including Goat Alley.

Krista Bartel, Dennis Novicky, and Tom Brucker went to Bransford Avenue (the original, not that eastern extension) where, in the R Loop side passage, they surveyed several hundred feet of small leads and cutarounds that had never been done before. Necessary stuff, but it was not pleasant passage.

Bill Koerschner, Ian Flom, and LJ Resteski did similar work off of Bransford itself, and put in some 500 feet of mostly new survey. The old survey crew had stopped where it got low and these folks pushed hundreds of feet past that in a noble effort.

Dave West, Karen Willmes, and Elizabeth Winkler went to Great Onyx to push leads. This was accomplished although the vertical squeeze lead continues.

Thanks to:

-Mark Brooks did good service as apprentice expedition leader and is more than ready to do his own. Being on Medicare should not be a prerequisite for ELs and we need more people like him to step forward.

-Everyone who came worked hard and almost all helped. With one exception, the place was kept clean as a whistle. On Sunday morning, the participants cleaned and disinfected the place. All tables, chairs, etc. were put away and the participants had mostly disappeared by 9:00 am. Folks really did well. This is verbatim from the last two years and it is always a joy to have the few, the brave, and the willing available to work.

-Kirsten Alvey did yeoman duty as camp manager for the first couple of days and I managed the rest of the time.

-Dave West did all the scanning and printing. Karen Willmes handled the payments.

Next page, left: Mykah Carden, Gretchen Asselmeier, Shelby Proctor, and Scott House at Becky's Alley in Mammoth Cave. **Right:** Dan, Valerie, Henry, and Margaret Lamping in Robertson Avenue, Mammoth Cave. Photos by Shelby Proctor.



2023-24 EXPEDITION CALENDAR

Before attending any expedition, you must contact the expedition leader as trip sizes may be limited. Failure to contact the leader may prevent you from attending the expedition as the trip may be full.

Eastern Operations - Mammoth Cave Schedule

Note: All participants must have signed the CRF Joint Venture Agreement prior to the expedition or sign a temporary JV agreement onsite. The JV agreement includes the requirement that the participant have hospitalization or accident and health insurance. Agreements signed in other operations areas transfer to Eastern Operations. At Mammoth Cave, although we are volunteers, we are not part of the official NPS Volunteers in the Parks program, which covers VIP accidents, rescues, and workers comp. Each CRF JV is responsible for their own health and/or accident insurance.

Thanksgiving, November 22-26, 2023. John DeLong, johnrdelong@yahoo.com.

New Year's, December 29, 2023-January 1, 2024. Jenny Tison, jenny.tison@gmail.com.

Presidents' Day, February 16-19, 2024. Jeff "Spike" Crews, cavespyque@gmail.com.

St. Patrick's Day, March 15-18, 2024. Dawn Ryan, dwn_ryan41@yahoo.com.

Note: Before attending any expedition, you must contact the expedition leader, preferably two weeks in advance. Participants of Mammoth Cave expeditions are required to attend one safety orientation before participating in expedition activities. Safety orientations will be conducted at the beginning of each expedition. New CRF members: please be sure to arrive at the expedition in time to attend the orientation.

Ozarks

Ozarks Operations trips and expeditions take place on a variety of government and private lands; the trips are based in a variety of locales and may include staying in NPS buildings, campgrounds, or even motels. Ozarks trips are held year round, but are often scheduled (or cancelled) on short notice due to the vagaries of the weather. If interested in attending an Ozarks expedition your first stop is the operations manager. However, contact any of the following for information on upcoming trips or check CRF's website.

These individuals also lead expeditions, trips or projects:

Kayla Sapkota (Buffalo National River and Arkansas Natural Heritage Commission survey and bioinventory), kayla.sapkota@gmail.com.

Dan Lamping (Missouri Dept. of Conservation, Pioneer Forest, and Ozark Riverways surveys), daniellamping@att.net.

Tony Schmitt (Pioneer Forest and Ozark Riverways surveys), tonymary2601@yahoo.com.

Matt Beeson (Mark Twain NF in SW MO), mattamanda.beeson@gmail.com

Jon Beard (Mark Twain NF in SW MO), mokaanman@att.net.

Matt Bumgardner (Mark Twain NF in SW MO), shaw95@gmail.com.

Jim Cooley (Cave gating and Mark Twain NF Irish Wilderness), coolstoi@kc.rr.com.

Craig Williams (Mark Twain NF archaeology), cwilliams@cairnsl.org.

Jeff Crews (Mark Twain NF Rolla/Houston area), cavespyque@gmail.com.

Marissa Schorr (Mark Twain NF Rolla/Houston area), marissaschorr96@gmail.com

Chad McCain (Moore System) chads93gt@hotmail.com.

Mark Jones (Oklahoma Projects) speleok9@gmail.com.

California - Lava Beds

Contact: John Tinsley, jmtinsl50@aol.com.

Before participating on any of these expeditions, please contact the Operations Area Manager, John Tinsley, at least two weeks before the expedition. Please do not just show up as there may be limits on the number of participants we can accommodate.

California - Lilburn and Sequoia/Kings Canyon

Some basic rules of engagement for California expeditions: Contact the expedition leader preferably two weeks ahead of time; please don't spontaneously show up. We have to deal with head count limits, particularly on our Lilburn trips, so we need to know who is planning to attend.

Contact: Jen Hopper, jennifer.hopper@ucr.edu, or Fofo Gonzalez, fofo@gzluna.com.

HSS/CRF Hawai'i Caving - Big Island

Contact: Pat Kambesis, pat.kambesis@wku.edu.

Carlsbad Caverns

Contact for all expeditions:

William and Tammy Tucker, william.tucker@att.net.

ADDRESS CORRECTIONS

If you have changed phone number or e-mail, or have moved, please send your information to:

Phil DiBlasi

110 S. Campbell St., Unit 204

Louisville, KY 40206-1863

pjdiblasi@gmail.com

THE CRF WEBSITE

www.cave-research.org

Contact your operations manager for the user id and password for the members-only section

