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Missouri Speleological Survey- President's Message October 2022 by Dan Lamping

Multiple crews mapped 1,803.5 feet in Devils Icebox during a trip associated with the last MSS meeting in early October. Teams were made up of MSS cavers and members of the Devils Icebox Institute, including the superintendent of Rock Bridge State Park. Many thanks go out to everyone who helped put the weekend together, beginning with Rita Worden, who first proposed the idea of hosting an MSS meeting at Rock Bridge to help support continued mapping in the cave. Rita further helped with planning and organizing. Thanks as well to Roxie Campbell and Rock Bridge State Park for having us and for prioritizing continued exploration and survey in this significant cave. Rock Bridge State Park's Devils Icebox Institute shows foresight in assuring that knowledge of and familiarity with the cave is passed down to cavers for future management. Kudos to Jeff "Spike" Crews for taking on the task of leading the survey and cartographic efforts. It was pretty nice getting to tie into a survey station from 1959 to continue mapping uncharted passage. Thank you to Kirsten Alvey-Mudd for putting together an outstanding breakfast both days and thank you to everyone who came out, including the cavers who helped survey and MSS directors and officers for making the trek to central Missouri to meet.



The next MSS meeting will be sometime in March 2023. I'll reach out to the Board to see which weekend works best. The plan is to hold the meeting in Rolla at the Missouri Geological Survey, in conjunction with an MCKC meeting. We'd like to have presentations, talks, map displays and cave files work through the day. If you're interested in giving a talk or presentation, or you'd like to nominate your buddy to, please reach out.

Right now is a good time in Missouri caving. Tony Schmitt recently pointed this out after the recent NCRC weekend in Perryville.

"Caving in Missouri is in a good place. In my 30+ plus years of organized caving in Missouri, I can't remember a time when we have had more competent, diverse group of cavers with the right attitude. This old dog is super impressed with the current crop. Y'all Rock."

There's a lot of productivity, and a lot of project-driven caving happening. A good, motivated group of newer cavers are coming up and will hopefully continue to get involved so that they can one day take on leadership roles and continue carrying the ball forward. Please encourage those in your grotto to come get involved and come to the next MSS meeting to see some talks, perhaps give one, and get connected with other active cavers in the state.

Missouri Speleological Survey Files Report for November 1, 2022 by Ken Grush. If you have **new information** on any Missouri caves, my email address is slak@grush.org. We need your help to improve the database and make it more complete. I can and do work with Facebook entries, but for information or photos to be incorporated I need to be “private messaged” with the cave name and county. **And now you too will know!** Something of perhaps “just” my interest is the lengths of caves in Missouri. I recently audited these lengths so hopefully these statistics make sense and are as accurate as we have available. First off, we have about **481 miles of surveyed passage** in the state. The highest total footages by county, (all greater than 20 miles) as one would expect, include the counties with most caves: Perry, Shannon, Pulaski and Camden Counties. Pulaski does rank behind Greene County in terms of total caves (about 20 less), but has higher total surveyed footage. Camden enters these ranks by having Carroll Cave within its boundaries. Further, by odd quirks of statistics, Marion (ranked 14th in total footage) has the **highest surveyed footage per cave** in any Missouri county. Probably could use a more detailed evaluation, but Perry County, with the most footage of any county, has a lower average footage because it has so many caves. In contrast, Marion’s average is higher because the total number of caves is very low. Furthermore, Pulaski County, which has as many 1-mile surveyed caves as Perry (but not same total footage), has still less average footage than Perry. Shannon has a lower average footage than Pulaski. One last topic: Missouri has only 75 caves that have been surveyed greater than a mile. Perry and Pulaski have the most 1-milers at 13; Shannon has only 6 caves over 1 mile; Camden only Carroll Cave: Marion has 3 milers.

Kirsten Alvey-Mudd sent: -Sent 3 new locations for caves in Howell CO. In addition, she sent photos, Directions, Descriptions and Faunal Records; all for entry into fields in the database. Photos will also be archived. **Allan Breite sent:** -2 cave reports on Lincoln Co. **Mark Brooks sent:** -Several emails with Descriptions, photos and Faunal Records for a new cave in Howell Co., Blue River Cave. This is a new location for *Cambarus hubrichti*, yes, the “blind” crawfish for the Salem Plateau. Then followed up with video of a cave fish and report of the grotto salamander. A bio-trifecta!! -A sculpin count for Berome Moore Cave, along with photos. **Jim Cooley sent:** -New cave location with Faunal Records, Directions, Entrance Photo and Description for Limb Line Cave in Benton Co. -New map of Just Low With a Flow Cave (CL=131) in Shannon Co. -New cave location in Oregon Co.: Scree Slope Cave. -An entrance photo for “new” Little Crawl Cave in Ozark Co. and 2 photos for White and Scree Slope Caves in Oregon Co. **Corey Ellis sent:** -Report on a new cave for Hickory Co., Friendly Neighbor Cave. -Reports for 2 caves visited at the recent Perry County MVOR: Blackfathom River and Rimstone River Caves. **Ken Grush sent:** -After scavenging reports from the OHG Ozarks Underground, I went to capture maps and found 6 maps missing from the database: Longs (CL=70) and Wilkerson Spring (CL=15, sketch) Caves in Green Co.; Walking Cave (CL=46) in McDonald Co.; Donley Cave (CL=701); Hooten Cave (CL=) and Cracker’s Cave (CL=574) in Ozark, Stone and Taney Co., respectively. A few that were more detailed than previous versions: Caney Creek and Davis Caves in Ozark Co. Several maps provided a second perspective on “already” mapped caves: Sugar Camp (CL=100), Little Sugar Camp (CL=50) Caves and Arrowhead Shelter (CL=80) in Barry Co. -Captured 50 reports from HOG, Daedalus and Gasconade Grottos’ archived newsletters. -Processing 80 folders (read different caves)

containing over 700 photos from an individual. -5 improved locations, 40 photos and Faunal Records for 4 caves in St. Clair County. Caves were scanned/surveyed but maps not yet completed. **Sam Grush sent:** -Photos and LIDAR scans for 4 caves in St Clair Co. and a fairly new cave in Lincoln Co., Kitson Cave (see Ruedin below). **Derik Holtmann sent:** -27 photos from an August survey trip in Carroll Cave of Camden Co. -Collection of over 40 photos from an MVOR trip to Blackfathom River Cave in Ste. Genevieve Co. **Scott House sent:** -An updated map of a Marion Co. Cave. **Mark Jones sent:** -10 new GPS locations, 4 of them are new caves in Howell Co.: Mysterious Bruise Shelter, Faux Boulder, Popcorn Crawl and Balcony Caves. Six of these were surveyed, but maps not completed, yet. -17 Use Monitoring Forms (read also 17 caves), 24 Narratives and 94 Faunal Records collected over 8 days while monitoring caves for CRF within the Mark Twain National Forest. Eight new caves were reported. All new caves are reported as surveyed, but several of the other 9 caves were also surveyed. Maps are in process of final cartography. **Dan Lamping sent:** -Narrative and 6 Faunal Records for a restoration trip to Little Scott Cave (see Ruedin, same trip). **Chad McCain sent:** -A Narrative for a survey trip at Carroll Cave in Camden Co. -A Narrative for a survey trip at Mystery Cave in Perry Co., a new entrance (Trillium ent.) was recently found and linked to a carbide station within Mystery Cave. -A Narrative for a bolt climb in Crevice Cave and new footage brings the length of Missouri's longest cave to 31.2 miles. In addition, 11 photos were sent of the climb. Plus 2 new Faunal Records. **Gary Resch sent:** -Survey notes for Skylight Cave in Perry Co. **Jim Ruedin sent:** -Narrative, 8 Faunal Records and 4 Photos of Kitson Cave in Lincoln Co. -Narrative for a restoration trip to Little Scott Cave. **Tony Schmitt sent:** -Narrative report and 2 Faunal Records for Carroll Cave, Camden Co. **Richard Young sent:** -Entrance photos for Southeast Rim Cave and Annex.

CRF pushes resurvey at MCKC's Moore Cave System, Endangered sculpin protected, stray dog rescued from cave by Gary Gibula. A partnership between the Missouri Caves and Karst Conservancy (MCKC) and the Cave Research Foundation (CRF) is behind current efforts to resurvey Missouri's second-longest cave system, find its possible connection with a nearby cave and preserve



10 cavers were on the dive team supporting Mike Young (red coveralls) attempt an Aug. 6 sump dive. Chad McCain – far right. (Photo courtesy of Chad McCain)

an endangered species of sculpin fish. **A project weekend** last August also ended with the unexpected result of cavers rescuing a dog that likely had fallen into a shallow pit entrance of the cave and been missing for over two months. **Berome Moore Cave** was first discovered in 1961 in a Perry County sinkhole following a trip to nearby Tom Moore Cave. Since then, the two caves have been linked via four different underground connections, “and I’m pretty sure there’s a fifth,

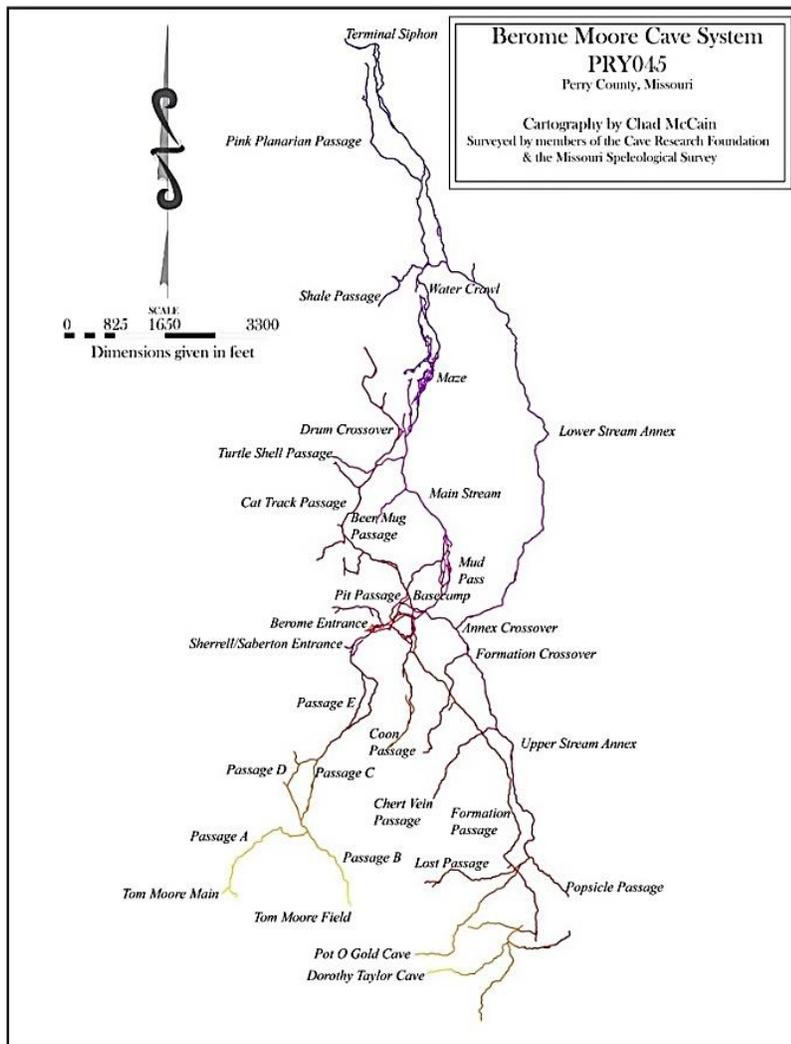
but it was completely underwater the last time I was there,” said Chad McCain. McCain, a member of the Southeast Missouri Grotto (SEMO), is the CRF caver and cartographer who recently assumed leadership of the Moore Cave System survey project. “Scott House deserves credit for the remapping

of Berome, beginning when the MCKC bought the entrance in 2009,” McCain said. “He ran the project for six years until asking if I’d like to take over the cartography. Little did I know, that also meant I had to run all the survey trips and expeditions. It was a lot of work.” Currently measuring 24.57 miles, the Moore system is second only to Crevice Cave. “The entrances to both of them are just 800-feet apart,” McCain said. “I recently did a bolt climb in Crevice that added 200 feet to the map. It’s now 31.17 miles long.” The stakes changed with the discovery of a small bottom-dwelling fish in Perryville area cave streams. The Grotto sculpin (*Cottus specus*) was found to be affected when fish die-offs were noticed in the last decade. Officials scrutinized water quality and found low levels of dissolved oxygen and high phosphorus, nitrates and pH (‘potential hydrogen,’ or acidity) with concentrations of a weed killer called Atrazine. Following negotiations with federal authorities, the county adopted a Community Conservation Plan that gradually restored water quality. The effort to resurvey the Moore system came about because it was discovered that many previous mappers either had inexact data or simply had never turned in their notes and sketches. “Since then, we’ve added well over six miles of new cave to the map,” McCain said. “I’m pretty sure that we’ve now got all the data for any tape that’s ever been pulled in that cave. Last year, we mapped more new cave than that which was resurveyed.” House and McCain noticed long ago that Dorothy Taylor Cave, with just over one mile of passage, lie roughly 550 feet away from Berome. That compelled them to contact cave diver Mike Young to see if the two caves connected via a lower sump. “Last fall, we took Mike to that sump, which is located only about two hours from the Berome entrance,” McCain said. “However, the last half-mile is all crawling—and the last quarter-mile of that half-mile is all belly crawl.” McCain said Young laid 570 feet of dive line that day but did not find the connection. For the August 6 weekend, despite the extra



The Grotto Sculpin (*Cottus specus*) found in Berome Moore and other Perry Co. caves (photo courtesy of Chad McCain)

quality. The effort to resurvey the Moore system came about because it was discovered that many previous mappers either had inexact data or simply had never turned in their notes and sketches. “Since then, we’ve added well over six miles of new cave to the map,” McCain said. “I’m pretty sure that we’ve now got all the data for any tape that’s ever been pulled in that cave. Last year, we mapped more new cave than that which was resurveyed.” House and McCain noticed long ago that Dorothy Taylor Cave, with just over one mile of passage, lie roughly 550 feet away from Berome. That compelled them to contact cave diver Mike Young to see if the two caves connected via a lower sump. “Last fall, we took Mike to that sump, which is located only about two hours from the Berome entrance,” McCain said. “However, the last half-mile is all crawling—and the last quarter-mile of that half-mile is all belly crawl.” McCain said Young laid 570 feet of dive line that day but did not find the connection. For the August 6 weekend, despite the extra



Map of Berome Moore Cave. (Courtesy of Chad McCain)

manpower on hand to haul and push oxygen tanks through the belly crawl, the second connection attempt was unsuccessful. “This time, there was a mechanical failure,” he said. “There will be a third



Original cellphone photo of Abby, the poodle-hound mix, at the moment of being discovered in Berome Moore Cave after apparently spending two months in the darkness. (Photo courtesy of Christopher Gidley)

attempt, but not until probably winter or next spring.” In addition to the dive team, the permit group was composed of two survey teams in other sections of the cave and another contingent familiarizing themselves with a ‘through trip’ between entrances in advance of the Fall MVOR campout that was to take place the following month. “That was a group of seven—three adults and four kids,” McCain said. “It was one of the kids going through who yelled back, ‘hey Dad, there’s a dog in the cave!’” Cavers Gerry Keane and Rick Haley ended up successfully extracting the stranded animal. “The attention was overwhelming,” said Haley, a member of the NSS, CRF, MVG and MMV. “But I did what any other caver would do—I was just there at the time when we were needed.” After verifying the claim of the stranded

dog, Keane went door to door in the neighborhood with a cellphone photo. He soon located the dog’s owner, Jeff Bohnert, a local fireman, and also summoned the fire department. Bohnert told Haley that Abby, a 14-year-old poodle-hound mix, had been missing for 59 days—since June 9. “Jeff said Abby and a companion dog had gotten loose that day from their dog kennel,” Haley said. “The companion dog later returned home but Abby didn’t.” Beyond the entrance passage, Haley and Keane negotiated a tight corkscrew and belly crawl to reach the spot, 500 feet in, where Abby was still lying. With the dog having drank nothing but cave water for two months, Haley said it was obviously on the brink of dying from starvation. He packaged Abby in a blanket-lined duffle bag



Gerry Keane (left) and Rick Haley after rescuing Abby. (Photo courtesy of Rick Haley)

and began the crawl out of the cave. “She totally cooperated and seemed to surrender to being rescued,” Haley said. “We moved slowly, picking her up, setting her down, crawling a little, moving the duffle forward. We did this for about the next hour and a half.” Bohnert told the rescuers that he was astonished and thought he’d never see the dog again. Six weeks later, he reported that Abby was doing well in her recovery from the ordeal. “I’ve been on three rescues of people, but this got way more attention,” Haley said. “Gerry and I decided that this is a ‘feel good’ story that should be used to spread joy to whoever wants to hear about it. This is a time when we could really use some good news in the world.” The resurvey of the Moore system will continue, with some 30,400 feet still left to go, McCain said. As



Rick Haley with Abby, the dog he helped rescue from Berome Moore Cave. (Photo courtesy of Rick Haley)

for Abby the dog, Bohnert said he couldn't be sure whether his pet had learned her lesson to stay away from cave pits. "I don't know about that," he said. "Who knows—she's a dog."

(Gary Gibula is a caver and journalist who writes for the *Chicago Tribune*, *NSS News* and other media. This article is an abridged version reprinted with permission from the Fall 2022 *ACCA News*, the newsletter of the American Cave Conservation Association, www.caveconservation.com.)

Stygian Grotto. Sept. 3rd – 4th - JJ Huelsing, Allan Breite, Rich Orr, Dawn Martin and Ian Pelletier, along with members of Windy City Grotto, Chris Landis, Kirsten Corbett, Keva Pivarski & Ryan Doolin helped to clear trash from and restore several sinks in Cuivre River State Park. Additional caves in and around the park were also visited to assess for vandalism damage and little fun for all. **Sept. 17th** - JJ



Huelsing and Dawn Martin continued field survey of Sugar Creek. **Sept. 27th** - Ian Pelletier took several new cavers into Illinois Caverns for a first trip experience. **Oct. 14th** - Local contractor, Level All Concrete Repair donated 2 – 275-gallon IBC containers for portable water sources to be used for graffiti removal with a low-pressure power washer. **Oct. 15th** - JJ Huelsing & Dawn Martin participated in a graffiti cleanup at Little Scott Cave. **Oct. 16th** - Allan Breite and Kevin Berdak contacted landowners in Lincoln County regarding possible sinkhole caves in their area. JJ Huelsing and Dawn Martin continued field survey in Sugar Creek. **Oct.**

22nd - JJ Huelsing and Dawn Martin did a field survey in St. Francois State Park. Allan Breite followed up with several landowners in Lincoln County regarding sinks in their area. **Oct. 23rd** - Allan Breite, JJ Huelsing, Ian Pelletier and Kevin Berdak continued the excavation and trash removal from a sinkhole in St Charles County. **Oct. 26th** - JJ Huelsing, Rich Orr and Allan Breite participated in the Trunk or



Treat community outreach at Cuivre River State Park. Attendance was huge this year with over 500 people attending. The kids could not stay away from the inflatable cave. **Oct. 29th** - Sarah Petersen accompanied Bill Gee from KCAG and members from several other grottos to perform a bat census in Carroll Cave. Ian Pelletier participated in cave rescue training with members of the Central

Region NCRC. Rich Orr and several friends conducted a streamside field search along the Big River. Several leads were generated.—Allan Breite

Lake Ozarks Grotto (LOG). Oct. 5th – Ken Long joined Klaus Leidenfrost and Jean Knoll at Goodwin Sinkhole for maintenance work. **Oct. 22nd** – Ken & Monica Long, along with Craig Smith, joined Klaus Leidenfrost, Jean Knoll, Elizabeth Sutherland and one other person doing more maintenance work at Goodwin Sinkhole.- Alberta Zumwalt

Kansas City Area Grotto (KCAG). Sept. 23rd - Jim and Julie Cooley led seven biologists and recreational rangers from the U.S. Army Corps of Engineers (USACE) to Slough Bottom Hollow Cave in Ozark Co., on USACE property surrounding Bull Shoals Lake. An intrusion detector was retrieved and replaced, and a familiarization tour was given to the personnel responsible for managing this cave. An orientation to cave survey and cartography was also provided. Later in the day, Jim & Julie surveyed two other small, nearby caves on USACE land, completing one survey and making good progress on the other. Subsequent review of the intrusion detector data revealed two unauthorized visits to this gray bat cave, one in May and one in July. **Sept. 24th** - Jim & Julie Cooley were joined by Peter Schnegelberger for map QC work in Slough Bottom Hollow Cave. **Sept. 26th** - Jim & Julie Cooley were joined by Peter Schnegelberger for mapping Bluff Spring Cave on the Mark Twain National Forest (MTNF), Eleven Point Ranger District, under CRF auspices operating out of the Winona residence facility. **Sept. 27th-30th** - Under CRF auspices, Jim & Julie Cooley, Peter Schnegelberger and Cliff Gill floated down the Eleven Point River to the White's Creek float camp for four days of canoe camping, mapping and cave monitoring on the Irish Wilderness and nearby MTNF properties. On one day, Julie was joined in camp for half an hour in the morning, and then again for about 15 minutes on his way home from work that evening, by a very calm, mellow four-point buck, who approached to within seven feet of her several times. (Julie suspects he might have been eating mushrooms...)



Scree Slope Cave (ORE-214), a new cave in the Irish Wilderness

Monitored were: White's Creek Shelter, Creekbed Cave, Porifera Cave, Coffin Cave, White's Creek Cave, Thorn Cave, and River Level Cave. River Level Cave is the home of what at first appeared to be a 15-foot-tall, vicious, rampaging & ravenously hungry short-faced cave bear (*Arctodus simus*). On closer examination, this creature proved to be an unusually robust, healthy, and indeed quite friendly *Castor canadensis* specimen (his tail gave him away). Caves completely surveyed on the Irish Wilderness included White Cave and Niche Cave, with substantial progress was

made on the survey of Amphitheater Cave. All of these surveyed caves were discovered by KCAG in 2008-2009, along with many others. In addition, yet another new cave was discovered in the Wilderness, Scree Slope Cave. Its obscure pit entrance was hiding on the same bluff line only 60 meters away from another well-known cave. **Sept. 28th** - Bill Gee took Rick Hines on a photo trip to Stark Caverns. The tourist sections of the cave were photographed. A future trip will be scheduled to photograph off-trail features. **Oct. 2nd** - Jim & Julie Cooley and Peter Schnegelberger monitored an Indiana hibernaculum cave in Carter Co. on MTNF, and installed an occult intrusion detector. We then visited Lewis cave to retrieve the "Managed by MCKC sign" and to do a critter check. In Lewis, Cooley was able for the first time to actually see and verify a blind cave fish, which were known to inhabit this cave. **Oct. 11th-16th** - Jim & Julie Cooley, Peter Schnegelberger, Andrew Erickson (Philadelphia Grotto) and Bryn Dawes-Ward (Chouteau) continued to survey a variety of caves on various private properties in Shannon Co. **Oct. 15th** - Nathan Taylor led a youth group and their

leaders from the First Baptist Church of Lee's Summit to Cleveland Cave. Although this trip was outside the boundaries of our normal cave access period, but our excellent and ever-accommodating landowner was more than happy to bend the rules a bit for Nathan and his crew, who he knows well. Fourteen participants enjoyed a day trip to the cave. This is an annual outing for this group. **Oct. 27th & 28th** - Rick Hines led a two-day work detail to do above-ground work on the new pavilion. He had hoped to pour concrete on the 28th but after 3 inches of rain earlier in the week he canceled the concrete to avoid getting a concrete truck stuck in the cow pasture. But since a crew was already lined up, they went ahead with working and switched from concrete work to framing the shelter house. Participating on the 27th, were Bill Gee and Jeff Bowman; on the 28th, they were joined by Don Toole, Martin Carmichael, Sarah Peterson and Justin Prazak. Poles were set, squared and anchored, and rebar laid down. To conclude the effort, part of the crew took a short "reward" trip into Carroll, the first trip for three of them, led by Bill Gee, who had some project work to do near the silo. **Oct. 29th** - Corey Ellis led a team targeting a few leads near the permanently closed historic entrance of Carroll Cave, past the Mountain Room. Also on the team were Kristen Vogel and John Nigro. On the way out to the Mountain Room, before they got too slimed, the group took a side trip and visited Paradise Passage and the Azure Pool off of Carroll Passage. The team eventually racked up 406 feet of sketch and survey, some of it past the neck breaker in the entrance passage from the gated entrance. Full details of the trip and photos can be enjoyed at <https://nashvillegrotto.org/trip-reports.php?tid=77>. Also, using LIDAR maps back in Sept., Corey Ellis reported a successful solo ridgewalking effort that resulted in the discovery of new Friendly Neighbor Cave in Hickory Co. **Oct. 29th** - Bill Gee led his annual Carroll Cave bat census trip. Participants included Martin Carmichael (Chouteau), Sarah Peterson (SPG), Justin Prazak, Jarrett Whistance, and Mike, Candace and Chloe Kovacs (SPG). Several tasks were accomplished including bat census, temperature readings for another research project, and a firmware upgrade and battery replacement for a U.S. Fish and Wildlife Anabat detector. For the last few years, Bill has found very few bats and quite a few sculpins.



Extensive looting pits on the Mark Twain National Forest

Perhaps it should be called a sculpin census. This year was no different; the sculpins were generally emaciated. Full trip reports on these three Carroll Cave trips are available on the MCKC website.

Oct. 31st-Nov. 1st - Jim & Julie Cooley joined two MTNF archeologists to assess three caves for gating on the Houston-Rolla Ranger District that suffer from heavy archeological looting. These well-known, large entrance sites were indeed heavily disturbed, but will be expensive and difficult to gate. So, note to archeological looters: At the behest of the Osage nation, the sovereign native

American tribe, which has ownership of artifacts and pre-Columbian human remains at these and other archeological sites, the MTNF is adding sophisticated, real-time, high resolution occult surveillance of known indigenous artifact zones, in the interest of increasing felony convictions for

what amounts to grave robbing. Moral of this story: Leave the bones, pottery, stone tools and arrowheads alone! These caves are all closed to the public anyway, but visiting them without prior authorization could well result in WAY more serious consequences than a simple trespassing charge.--
Jim Cooley

Springfield Plateau grotto (SPG). Sept. 8th - SPG conducted its Sept. business meeting outside of Smallin Cave (Christian Co.), then we were led through the tour section of the cave by owner Kevin Bright. **Sept. 13th** - Dr. Doug Gouzie took his MSU - Speleology class (20 students and 2 faculty) to Talking Rocks Caverns, where they were led on a trip through the cave by Bruce Herschend. A good time was had by all. **Sept. 17th** - Matt Beeson, Jacob Burton, Zach Burton and Nathan Burton went to Old Spanish Cave, where they began the remapping of the cave. The group mapped 465 ft. **Sept. 20th** - Sarah Peterson assisted Nathan Burton in leading a group from Ozark Teen Challenge in Old Spanish Cave (Stone Co.). The group consisted of about 20. Nathan told the history of the cave at the entrance and then they entered the cave around 2:00 pm. A grotto salamander was seen just outside the gate in the stream. After they entered the first room, Nathan spoke more about where they were in the cave. The group first continued through the main passage until it choked off with a debris cone. At that point, some of the boys explored the small passage in the corner. Then the group made their way towards the back of the cave and split up. Sarah took part of the group through the Elvis room and back into the crawl to the room in the back. While Nathan took the rest of the group back to Rebecca's Well. After Sarah's group returned, they switched groups, with Sarah taking the rest of the group to the back room and Nathan leading the others to Rebecca's Well. Once they were all back, everyone made their way back to the entrance to exit the cave. **Also, on Sept 20th** - Dr. Doug Gouzie took his MSU Speleology class (20 students and 2 faculty) to Old Spanish Cave (Stone Co.) where they were led through the cave by Nathan Burton. A good time was had by all. **Sept. 22nd** - Jon Beard presented a PowerPoint picture show at Ron Martin's Branson Daybreaker's Rotary Club which featured cave photography from many of SPG's foremost cave Photographers. **Sept. 24th** - Matt Beeson, Kevin Bright, Jacob Burton, Nathan Burton and Skyler Vaughn went to Smallin Civil War Cave (Christian Co.) and continued the map, mapping 1,003 ft. in the J. Harlen Bretz passage. **Oct. 1st** - Jon Beard, Jarod Ozee, Trenton Wells and Max White checked out an undocumented cave in Christian Co., on private land. The new cave was named 3 Claw Cave. Located in the Pierson Limestone, it is only explorable for about 50 ft. before it becomes too low. **Oct.13th** - Melvin Johnson set up the SPG Display: Bats, Caves and Karst at the Springfield Nature Center for the Home School Outdoor Fair. The event was attended by 350 people, 100 adults and 250 youth. **Oct. 29th** - A Bat census trip led into Carroll Cave (Camden Co.) by Bill Gee. Mike, Candice and Chloe Kovacs, Martin Carmichael, Justin Prazak, Sarah Peterson, and Jarrett. Dropped into the cave at around 9:30 and began heading towards the lunchroom. The group stopped along the creek to count isopods. More than a dozen isopods were spotted. In the same location, a cave salamander was seen in the water. They stopped at the first set of guano piles to observe the data. Near the piles in the creek, two small cave fish were seen. Another larger one was seen just up the creek. They finished checking out all of the guano piles and at piles 15a and 15b, Bill updated the firmware on the bat data sensor. Here is where Sarah and Martin turned back and headed back towards the ladder to exit the cave. While the others continued on. Martin carried the laptop into and out of the cave for the firmware update. The two exited the cave at about 2:30pm. --Report by Max White, Content provided by Jonathan Beard, Matt Beeson, Nathan Burton, Dr. Doug Gouzie, Melvin Johnson and Sarah Peterson.

MSS MINUTES. The Fall 2022 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on October 2nd, at the Rockbridge State Park maintenance shed, Columbia, MO. **Introduction of Officers:** Dan Lamping, President; Krista Bartel, Vice-President; Don Dunham, Treasurer; Alberta Zumwalt, Secretary. **Roll Call of Directors:** Lorin O’Daniell, PEG; Allan Breite, Stygian; Tony Schmitt (proxy for Alex Litsch), MVG; Gary Resch, SEMO; Max White, SPG; Cheryl Paulson (proxy for Jim Cooley), KCAG; Craig Williams, CAIRN; Alex Litsch, MCKC; Martin Carmichael (proxy for Rita Worden), Chouteau; Jeff Fennell, Daedalus; Gary Zumwalt, LOG; Don Dunham (proxy for Doug Leer), MMV. Absent were: Roubidoux, LEG, OHG, MSM. **Secretary’s report.** The secretary thanked Krista Bartel for taking the minutes of the Spring 2022 meeting. The minutes were distributed to the officers and directors, and printed in the March-April *MSS Liaison*. Approved as sent. **MSS Liaison.** Gary Zumwalt reported cash on hand of \$258.04; Sending out 31 paper copies and the rest as electronic copies, the next deadline is Nov. 1st. **Treasurer’s Report.** Don Dunham reported: September 30th, 2022 – ACCOUNTS: General fund \$9,971.22; Subscriptions/Donations *Missouri Speleology* \$2,710.98; Research Fund \$9,284.78; Anne Johnson Data Fund \$16,974.77; Affiliation Fees \$1567.00; Subscriptions *Liaison* \$41.00; Total \$40,549.75. ASSETS: Savings Bonds \$2,000; Interest Checking \$2,549.79; Certificates of Deposit \$36,000; Total \$40,549.79. Don said the \$2,000 savings bond would come due in June and be \$6,000, the interest would make the research fund account \$13,000. **Missouri Speleology.** Don Dunham reported that two volumes had been published: Vol. 66 – Missouri Show Caves; Vol. 65 – Tom Aley’s Bear Cave. Subscribers should have received them. No more volumes will be published until next year. Don said expenses have been printing costs. Sales online has been approx. \$2,000. The Cliff Cave issue has been very popular and had to be reprinted, costing about \$1,000. **Old Business:** None. **New Business: Election for President and Vice-President.** Tony Schmitt made a motion that Dan Lamping and Krista Bartel be re-elected by acclimation. Seconded by several. Motion passed. **Cave Files Committee. USACE data agreement - Pres.** Lamping reported data sharing agreement with the Army Corp of Engineers, sharing locations and faunal records. The information stays off Federal computers and there is limited access. **Shawnee and Osage via USFS – Pres.** Lamping reported they got all the locations and sent them back. **Agency Reports.** Allan Breite questioned equipment used in mapping including Disto & Lidar, compared to old style. Pres. Lamping said that Disto replaces compass & clinometer. Much discussion with most saying it didn’t matter what equipment they used as long as they knew how to use their equipment and got the job done. **Missouri Dept. of Conservation.** Pres. Lamping said that permits are now through CRF instead of the MSS. The process should be easier. They are working through Shelley Colatskie. **State Parks.** Pres. Lamping said lots of work was done in Devil’s Icebox, tying into the 1959 survey. Spike (Jeffrey) Crews reported that divers had pushed through a sump and broke into new cave. The original map was done by George Deike. Cavers at that time mapped as much as they could with the time that they had. Mapping is now being done to tie into the original survey. Spike said the cave would be open in September or early October if we wanted to do it again next year. It would be possible for those that were familiar with the cave, to do a trip on their own to work and Spike would give them the info they would need. **Affiliate Organizations Project Reports. Carroll Cave – Bob Lerch** reported that the cave is now at 21 miles. **MCKC – Alex Litsch** reported that on Oct. 15th, the MCKC would host the 30th annual member/business, acquisition of Carroll Cave, etc. meeting with a chance to work at Goodwin Sinkhole & Cave. **Berome Moore Cave.** Pres. Lamping mentioned the dog rescue that happened there. The dive connection did not happen. **Other.** Pres. Lamping thanked Spike for making the weekend possible at Devil’s Icebox. **Public Outreach. Facebook & Website – Pres.** Lamping said he puts Liaison on the website and announces when there is a new *Missouri Speleology* published. **Thank you letter.** Pres. Lamping read a letter from the

Tumbling Creek Foundation, Protem, for remapping the cave, signed by Dave Woods, Executive Director. **Next meeting.** Pres. Lamping suggested the Spring meeting be at the Geological Survey in Rolla and feature presentations. Much discussion on site and date. Spike said that a new Director was coming in and he didn't know if the meeting would be allowed there as it was in the past. There is a cooperative agreement that might help. If the Survey building was not available, possible room at MSM. A date was not set at this time but looking at the month of March. **Meeting adjourned.** — Respectfully submitted, Alberta Zumwalt, Secretary.

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Research Committee -Dr. Robert Lerch, Dr. Michael Sutton, Dr. Doug Gouzie and Jeffrey Crews.

Cave Files Committee: Scott House (Chairman), Ken Grush, Mick Sutton, Dan Lamping, and Jeffrey (Spike) Crews.

Calendar:

January 1st. 2023 - Next Liaison deadline

March – Next MSS meeting, tentatively at Rolla. More info later.