

# THE MSS LIAISON

## VOLUME 60 NUMBER 7-8

July-August 2020

### AFFILIATE ORGANIZATIONS:

CAIRN – CCC – CHOUTEAU – DAEDALUS – KCAF – LEG – LOG –  
MCKC – MMV – MSM – MVG – OHG – PEG – RBX – SEMO – SPG.

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### Missouri Speleological Survey

#### President's Message September 2020 - by Dan Lamping

The Fall 2020 MSS Meeting is currently planned to be held atop Berome Moore Cave, at the MCKC's *Lloyd and Ethel Hoff Underground Nature Preserve* in Perryville, Missouri at 10:00 AM on Sunday, September 27, 2020. This will happen in conjunction with the *Missouri Caves and Karst Conservancy* meeting. Project oriented mapping and possibly other trips will occur on Saturday, September 26. Those planning to go caving, please contact Scott House or Chad McCain as they will be coordinating the in-cave activities. The trips which are planned will in-part be determined by crew sizes. Camping will be available on-site for the weekend. To support social distancing on the surface, we're asking attendees have a direct interest or involvement in the MSS or MCKC and/or planning to come to participate in the cave work trips. As long as our group size is not too big, the site at Berome should be large enough to accommodate us and allow for keeping some distance from one another. Please respect others and practice social distancing. We can make no guarantees or assurances of safety and can only trust one another's best judgment. Please don't feel compelled to come if you're at all concerned about your own health and likewise, please do not come if you are feeling ill, or have knowingly been exposed to someone who is COVID-19 positive, within the two-week period prior to the meeting.

In terms of the MSS Board Meeting, we do have two orders of business to address. One will be the appointment of an ad hoc Cave Files Committee with the purpose of more clearly defining the process of managing the Missouri Cave Database and to plant the seed for future generations to take over management of the database at some point down the road and for them to be able to do so with the combined knowledge of those who created it and have managed it. Another order of business will be nominations and elections for MSS President and Vice President. I am willing to serve another term and Krista Bartel has agreed to run for Vice President, with Scott House agreeing to step down as VP. Scott has agreed to chair the Cave Files Committee. Board members can still nominate other candidates for both the President and Vice President positions.

While on a mapping trip in Berome Moore, recently, I was fortunate enough to experience an interesting connection with the past. In mid-August, three teams entered Berome to push a likely virgin side passage off Formation Passage and to push the current survey beyond the mapped end of Formation Passage. It was my first time going to the "end" of Formation Passage. When we arrived, Mark Brooks pointed to a carbide mark at the corner of a split in the passage. He told us that Lang Brod's survey ended there in 1968 and no passage had been mapped beyond there, since. We knew that Rick Haley and perhaps others had pushed beyond there in the 1990s, but nothing had been mapped. Both the right and left fork looked promising. Our team initiated the survey of the right fork, which began as a hands & knees, tapering to belly crawl, at first. Shortly upstream though we found ourselves in walking passage. After mapping 1,000 ft, we ended the day in walking passage. A return trip a few days later added almost another 1,000 ft before

reaching the passage end. Kudos to Rick Haley for the bet on what's back there. As he reported there were early 20th century whiskey bottles that he put on ledges in the passage. These are the same variety which Stan Sides found in Dorothy Taylor Cave, which is a nearby, mile long cave that cavers are working to connect to Berome Moore. Chad McCain's update of the line plot shows the passage ends in the same sinkhole associated with Dorothy Taylor Cave, though this is not where the connection is expected to occur. The left fork at the end of the 1968 survey still remains. It's reportedly wet, cold and remote. But, it's there, waiting and heading into the unknown. Berome Moore has been a popular cave amongst cavers since it was first discovered, and yet this extension eluded most. What other remote leads in Berome or other large Missouri caves, which weren't quite pushed to the bitter end, for whatever reasons, by the primary explorers, are waiting out there for a new crack at systematic exploration and discovery by a new generation of determined cavers?

Regarding big caves in Missouri, one of the first projects of the Missouri Speleological Survey back in 1956, was to explore and map Carroll Cave in Camden County, Missouri. Carroll is currently the 3rd longest surveyed cave in Missouri with almost 21 miles of mapped passage. The exploration and survey of Carroll is an ongoing project, though it has slowed down in productivity in recent years. But the cartographic efforts for the project are still going strong. The map of Carroll Cave is divided into 11 quads with 7 different cartographers working on it. All but one of the quads has progress made on them with a few being finished or nearly finished. Recently, the Carroll Cave Conservancy published on their website, drafts of each of the map sheets. These can be viewed at [https://carrollcave.org/?page\\_id=3478](https://carrollcave.org/?page_id=3478). Also, the MSS, MCKC and KCAG all got some good press recently in an outdoor magazine out of St. Louis, called Terrain. See the article here <https://terrain-mag.com/caving-camping-missouri/>.



*Left: Whiskey bottles put on a ledge by Rick Haley sometime in the 1990s. The bottles state "Federal Law prohibits the sale or re-use of this bottle."*

*Right: A caver holding a laser target while mapping walking height passage with a DistoX2 in Whiskey Bottle Passage off Formation Passage, in Berome Moore Cave.*

**Missouri Speleological Survey Files Report for September, 2020.** If you have **new information** on any Missouri caves, my email address is [slagrush@gmail.com](mailto:slagrush@gmail.com). 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. **Nathan Aaron sent:** -Two LIDAR leads that he checked and found were linked to two known caves: the GPS point set confirms existing GPS locations and now we have entrance photos for Roubidoux Rubble Cave in Pulaski Co. and Moss Pit Cave in Texas Co. -7 leads in Phelps and Pulaski Co. He does a lot of just walking in the MTNF and sees interesting features that haven't previously been recorded. He sends locations and photos, but doesn't enter them since he is often alone or not geared-up for caving. A project that is waiting for interested cavers! **Kirstin Alvey-Mudd sent:** -A dozen photos, GPS location and a detailed description of Big Spider Cave in Cole Co. -

Abundant photos, 17 faunal records, GPS and description for Crede Cave in Cole Co. **Jon Beard sent:** -34 new faunal records for caves recently that he visited. He also significantly amended the existing Main Table records for Adams Cave in Stone Co. and Bear Cave in Lawrence Co.; these caves had about half the faunal records. The other records came from caves in Christian Co.: Fitzpatrick and Garrison Caves. -45 more faunal records for Fitzpatrick (CHR), Breakdown (CHR), Perarson Creek (GRN), Goodwin Pit (LAC) and Onyx (OZK) Caves. -An updated map of Shoal Creek Cave (CL=3590) in Newton Co. What's the difference between a 577 ft cave and a 3590 ft cave? Apparently just a small crawlway and about 8 years of mapping between the 2012 and 2020 map! **Matt Beeson sent:** -New maps for Tilted Rock (CL=42 ft) and Slick Rock (CL=167 ft) Caves in Barry Co. - New map of Turnbull Cave (CL=3041) in Douglas Co. **Seth Colston sent:** -A bunch of photos from some recent cave trips: almost 70 photos from Stallcup Cave in Texas Co.; about 50 photos from Slough Bottom Cave in Ozark Co.; and another 60 for Robbers Cave in Benton Co. **Jim Cooley sent:** -Two new caves for Shannon Co.: Just Low with a Flow Cave and Buddhas Shrine Cave. Initially locations and brief descriptions were sent, but the caves were surveyed. -Three photos for the entrance shots of caves that we keep in our database for people to see what kind of entrance people should look for when going to a cave. **Don Dunham sent:** -A collection of files that Pam Saberton had saved of Tex Yokum's files. Ken Grush then scanned almost 500 files out of that collection. At least 24 different caves had original survey information that was scanned. Four of these folders had maps that previously hadn't been seen and were not in the database. Later he delivered the original Streiler City Cave survey notes to be scanned for the cave archives. **Ken Grush sent:** -14 new faunal records, 8 new reports and 10 new records (see Aaron Nathan). -Information on 3 new shelters that had been identified on an Ozark Regional Land Trust Property in Jefferson Co.: Kress North, Kress Middle and Kress South Shelters (for now). All three were surveyed and maps added to the archives. Photos, directions, descriptions and faunals were included. -An updated file for the Goldman Shelters #1 and #2. Lang Brod reported on these back in 1963, but they hadn't been reported on since. The database only recognized them as a lead. A survey is planned for a return visit, since we were allotted only 1.5 hours to visit 4 shelters. All was found as Brod described, Shelter #1 barely provides shelter, while Shelter #2 is certainly noteworthy. The guide's (adjacent landowner) shelters were of interest but not of enough depth to qualify as significant shelter. -Over 600 Perry Co. reports were "re-assembled" from the St. Louis cave files and entered as reports into the database. The "text" documents are stored in the archives along with the original scans. Some explaining? Back in 2014, about 20,000 files were scanned from the St. Louis cave files, a satellite storage for the Rolla Cave Files, which is the main depository for cave files in the state. Since 2014, all but 4 counties now have been scanned into jpg format, assembled into pdf format for optical character recognition (OCR), then transcribed into text format to place in the database for easier access. Only 1600 more scans to go! The Perry County files were perhaps one of the best counties in that almost all of the report data had already been entered into the database but from a "dis-assembled" copy of the reports. Essentially the original format of the report now also resides in the database for quick reference. -Scans of 500+ documents from Tex Yokum for placement into the cave archives. **Derik Holtman sent:** -63 photos for 2 days of floating on the Jacks Fork, when they monitored 13 different caves in Texas and Shannon Co. Many of these pictures are destined to become the cover photo for these caves in the database since we had no previous photos in the archives for most of them. **Scott House sent:** -65 modified main table entries. House has been auditing MTNF and ONSR caves and adding geologic formations primarily, but also modification to cultural and historical notes. He also added 6 leads in Perry Co. that he has had. And 6 reports were also added to the related records. House occasionally takes the operative database and makes these modifications. -New cave information for a cave on ONSR in Shannon Co. that was recently found. **Mark Jones sent:** -Over 1200 photos for 60 caves trips that he has done since February, mainly in Carter, Shannon and Texas Co. -32 Faunal Records, 5 reports and 5 Use Monitoring reports for recent work in 5 caves on the ONSR and in the MTNF. Photos very likely to show up soon! **Ed Klausner sent:** -A map of Hole in the Wall Cave (CL=73) in Shannon Co. **Dan Lamping sent:** -Use Monitoring forms for 6 caves on the Scenic Riverways that he and his son Henry monitored over 3 days. Their trip also provided 17 faunal records. -An obituary from 2/21/1879, about 140 years ago, that links to a signature in Centennial Falls Cave in Shannon Co. -A progress map of Tumbling Creek Cave, Ozark Underground Laboratory in Taney Co. -Map collection of the 12 plates for Carroll Cave in Camden Co., the state's third longest cave. -Monitoring form for a CRF visit to Swiss Cheeze Cave in Shannon Co. **Joe Light sent:**

-Over 20 documents on the McHose family who were early owners of Benton Park Cave, aka English Cave. He also sent 7 photos of Benton Park Cave including a composite picture showing passage within the cave that was gathered from a video of the hole drilled into the cave. -A new ordinance for St. Louis Co. dealing with development in sinkhole prone areas of the county. -5 historic photos of Cliff Cave in St. Louis Co., at least one is dates 1890-1920, all certainly from a different time. **Alex Litsch sent:** -About 40 files, mostly photos and location data, for 6 caves monitored for CRF on the ONSR, Current River (see also Gary Resch). **Gary Resch sent:** -5 Use Monitoring forms and 15 faunal records, for 6 caves monitored for CRF on the ONSR, Current River. **Robert Swain sent:** -Documents to identify a new cave that has been resurrected within Onondaga State Park: Perennial Cave. Greg Hanson submitted the initial report and sketch map for work he did in the cave about 3/6/2011. Swain found the cave location on LIDAR and documented the location with GPS. **Mike Tennant (via Dan Lamping) sent:** -5 Use Monitoring forms and 6 faunal records for work done for CRF on ONSR in Shannon Co. **Alberta Zumwalt sent:** -Some of her personal collection of news clippings on and about Missouri caves, about 15 pages of clippings. She also sent the 1964 Certificate of Incorporation for the MSS, scanned and returned to her. -Ken Grush

**Remembering Bill Pfantz.** I first met Bill at the Kansas City Area Grotto (KCAG) in 1988 or 1989. He had an old Ford ½ ton pickup (very worn out) that he painted with Walmart “rattle can” spray paint in a baby blue color. Then he put a very large camper in the bed that was for a ¾ ton truck. KCAG put on the Fall 1990 MVOR in Arkansas. On Thursday evening of the MVOR, here comes the baby blue Pfantz Special wobbling from side to side, rolling across the pasture towards the KCAG camp. Getting close, we noticed the passenger door starting to open and when Bill finally stopped, the door swung open and the new caver in the front seat sprang out, falling to the ground and kissing it, saying he was so glad to be alive. Within the last 2 hours of the drive from KC, he knew he was dead at least 10-12 times. Arkansas roads leading to the MVOR were very curvy and Bill's camper would start to sway and swerve. Bill would have to crank the steering wheel back and forth and try to get it back under control all the while the truck is going all over both sides of the road. Upon getting up from the ground, the guy looks over to us and shouts “Will someone please give me a ride back to KC as I will never ride with that crazy S.O.B. again.” With Bill's classic chuckle and smile, his comment upon getting out was “We got here didn't we?”



Bill Pfantz at a Lake Ozarks Grotto Xmas party – photo by Zumwalts

Four of us from KCAG went to Arkansas to cave at Ennis and Alexander caves. After caving for a while in Alexander we were taking a break. I was looking around and saw a small shelf area so I climbed up and found a pair of reading glasses. I stuck them in my pocket to throw in the trash later. A couple weeks later at the grotto meeting, I was giving our trip reports and mentioned I found glasses in Alexander. Bill pipes up and says those are my glasses I lost there a couple of months ago. The next grotto meeting I returned the glasses to Bill. Of course, they were still covered in cave mud.

Bill was fun and exciting to share a house with as you always knew you could get long in-depth discussions on most any topic but especially on what inscriptions he was working on at the time. Or I could just exchange a few words and go to my room. When I lived with him in 93-94, he was delivering pizzas in Raytown (KC suburb), while still working his full-time job, so there was always pizza in the fridge. He said he enjoyed meeting the different people and being a part of their life but for just a moment as he delivered their pizza. I know he delivered pizza for many years. Other cavers from KCAG found shelter at Bill's “Home for Wayward Cavers” over the years as Bart Rapp was the first, then me and finally Bob Parks.

Bill was a meat cutter by trade and a really good one. Of course, his bosses at work did not know what they were doing so he just did his job well and stayed out of their way. Saying Bill was eccentric was an understatement. Bill was truly a great man with the joy and hope of a child's new discovery when dealing with

his archaeological work and research. Finding writings and inscriptions in and around caves or many other areas where you or I may or may not see some slight depressions in the rock. Bill would see these depressions saying they could be Sumerian inscriptions, look and photograph them from every possible angle and then some more so he could research them deeper upon his return home. He was a very intelligent man who had very strong beliefs and commitments. He would also listen to your ideas and thoughts and discuss them openly with you. He would give you the shirt off his back if you were only to ask.

I was honored to have him call me a friend. I loved the man as a brother and will deeply mourn his passing. Bill would not have wanted us to mourn him but to celebrate his joy of life, his enthusiasm for his archaeological inscriptions, his sense of exploration and discovery, his love of caves and the earth along with the joy he brought to each of us that knew him as a friend.

We will truly miss you old friend... for it takes a life time to grow an old friend. --Ron Lather

(Note: Bill Pfantz was an MSS member since 1988 and was currently the circulation manager for Missouri Speleology, a job he had done for many years. Bill was a member of Lake Ozarks Grotto since 1989. He had a website for petroglyphs, inscriptions & pictographs: rockartmo.com.)

**Springfield Plateau Grotto. June 30<sup>th</sup>** —Jon Beard was invited by a new landowner to check a cave on his property. Adams Cave (Stone Co) is a remnant of a longer cave in the Pierson Formation. According to the 2003 Ben Miller map, it is 110 ft. long, but a person can hardly get into the cave for 30-35 feet due to extensive collapse. Slabby breakdown is everywhere. What remains accessible is a nice big entrance, about 10 ft. of walking passage, crawls over breakdown that don't go much and some joint-determined cracks. Water issues perennially from under the breakdown. Jon explained the geology to the landowner while also recording biota and taking some photos. **July 3<sup>rd</sup>** —Jon Beard continued his restoration work in the Paul's Gallery section of Fitzpatrick Cave (Christian Co). Using a Dremel sanding attachment, he removed the minor regrowth on a stalactite "base", then drilled matching holes in base and piece. The holes were filled with high strength epoxy, the break surfaces were coated lightly with the epoxy. With a stainless steel "pin" inserted, the reattachment was made, securely braced with a tripod until the epoxy cures. Jon returned **July 4<sup>th</sup>** to remove the tripod. **July 7<sup>th</sup>** —Jon Beard rejoined another stalactite in Fitzpatrick Cave (Christian Co), a fairly hefty one. Like many of the fallen stalactite pieces, this one was badly mud-stained from decades on the muddy floor (perhaps stepped on, kicked around?). Jon returned on the **10<sup>th</sup>** and **13<sup>th</sup>** to color-match the previous two repairs, using a cordless Dremel with a buffing attachment and some minor use of 10% muriatic acid (brushed on with a catch bucket below). About two ounces of solution was used. The bucket was rinsed out later (of calcium chloride solution) in a river nearby. **July 11<sup>th</sup>** —Jon and Alicia Beard spent the afternoon walking trails at Doling City Park, briefly cooling off at the entrance to Giboney Cave (Greene Co), taking photos. The entrance area is noted for its large prehistoric mortar, a rounded bowl-shaped depression used for grinding (with a pestle). This is Springfield's second longest cave. **July 12<sup>th</sup>** —Jon and Alicia Beard hiked the trails at Ha Ha Tonka State Park, avoiding the trails that had other people. They briefly photographed Ha Ha Tonka Natural Bridge and Devils Kitchen Cave (Camden Co.). **July 17<sup>th</sup> & 19<sup>th</sup>** —Jon Beard returned to Fitzpatrick Cave (Christian Co) to clean mud stains off of stalactites. These mud stains were the result of handling by muddy hands of visitors of the past (before the cave was gated in 2014). **July 23<sup>rd</sup> - 25<sup>th</sup>** —Jon Beard spent three more days in Paul's Gallery of Fitzpatrick Cave (Christian Co), working on stalactite cleaning and stubborn graffiti. On the 24<sup>th</sup>, as Jon was about to leave the cave, Treavor Bussard and friend Clayton happened by before the two of them visited nearby Breakdown Cave. --Report by Max White, Material provided by Jonathan Beard. **Aug. 2<sup>nd</sup>**—Jon Beard changed the lock combination and picked up 2.8 lbs. of small trash (tiny pieces of glass, tea candle cups, etc.) in Pearson Creek Cave (Greene Co), a cave gated in 2011 and restored. The 424-foot cave is home to at least 24 species of critters. **Aug. 5<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 22<sup>nd</sup>**—Jon Beard continued his restoration work in the Paul's Gallery section of Fitzpatrick Cave (Christian Co), working on removing calcified muddy handprints from a drapery complex just inside the passage and black spray paint graffiti. **Aug. 10<sup>th</sup> & 11<sup>th</sup>**—Matt Beeson was assisted by Jon Beard in the resurvey of Onyx Cave (Barry Co) as part of the CRF project in Mark Twain National Forest. An interesting thing was Jon assisted the late Bob Taylor in the previous survey of the cave 39 years ago (March 1981). This curious cave has three sections, each with its own entrance, each with its own personality, and all but the

skinniest must use each entrance to see the whole cave due to very small constrictions. On the 10<sup>th</sup>, an overland survey was done from entrance-to-entrance-to-entrance, then they conquered the most miserable section, the lowermost part of the cave. This 100+-foot section has a wide entrance strewn with large breakdown blocks, leading to a tight, narrow crawl to a small room, then a tight, low crawl to another small room before its last low crawl. On the 11<sup>th</sup>, they surveyed the rest of the cave, beginning with the pit entrance. They surveyed to the south to the terminal room, then north to the speleothem constriction. Jon climbed out and they surveyed through the constriction. Matt joined him and then squeezeeeezeed through the constriction. They surveyed the midsection of the cave, connecting to the low, tight squeeze from section one mapped the day before. Critters seen during the survey included numbers of cave and slimy salamanders, one central newt eft and hundreds of camel crickets. **Aug. 13<sup>th</sup>**—SPG held its August business meeting inside the entrance to



*Goodwin sinkhole by Stephanie McCarthy*

Giboney Cave (Greene Co). In attendance were Roman Thomas, Caleb and Hannah Schlager, Cheryl Paulson. Max White, Brian Moore, Doug Gouzie, Dillon

Freiburger, Treavor Bussard, Matt Bumgardner, Matt Beeson, Alicia and Jon Beard plus guest Shayne Taylor. **Aug. 15<sup>th</sup>**—Dillon Freiburger, Nathan Burton, Matt Bumgardner and Jon Beard helped with the continuing excavation of Goodwin Pit Cave (Laclede Co), an MCKC restoration project. Progress continues to be promising. The enterable passage is now over 100 feet with no end in sight. **Aug. 29<sup>th</sup>** --Mark Collier and Stephanie McCarty traveled to Goodwin Sink (Laclede Co.) to assist Klaus Leidenfrost and MCKC in the continued efforts to clean up trash and remove clay and debris fill from the congested entrance Passage. **Aug. 30<sup>th</sup>**—At three Christian County sites,

Treavor Bussard tested water while Jon Beard recorded results. Tests were conducted for nitrates, phosphates, dissolved oxygen, CO<sub>2</sub> and hardness. First was the Phreatic Pool of Fitzpatrick Cave, a site where bristly cave crayfish and Ozark cavefish have been documented. Second was Garrison Spring, the main resurgence to Garrison Cave #2. Lastly was the Fourth Entrance Pool of Garrison Cave #2, another site where bristly cave crayfish have been found. While there, Treavor and Jon checked the cave gate (all was well), but tucked away in the main entrance passage were an assortment of shovels, hoes, trowels, other hand digging tools, plastic baskets and a large carrying bag for all. These unauthorized tools were removed. Garrison Cave #2 is home to the largest known population of bristly cave crayfish. --Report by Max White, Materials provided by Jonathan B. Beard and Stephanie McCarty.

**Kansas City Area Grotto (KCAG). July 11<sup>th</sup>** - Bill Gee and Seth Colston led trips into Carroll Cave to download data from all the data loggers, test some light detection devices that Gee and Jim Cooley are developing for surreptitious recording of unauthorized cave intrusions, and to review the contents of and service the rescue cache located at the Round Room. Another objective was for Gee to provide trip leader training for Colston and Kristen Godfrey. Gee arrived Friday late afternoon to camp, with Jay and Nick Kennedy (KCAG), Seth Colston (KCAG) and Martin Carmichael (Chouteau Grotto president) arriving over the next few hours. Gee hung a rope in the silo so that the Kennedys could do some vertical practice. Carmichael and Gee used the rope to check out Carmichael's climbing system. The Saturday effort started with two teams, with Colston's team going after data loggers. This team included Godfrey and Melissa Shippy of KCAG, Kayla Rosen and Tyler Skaggs (independent cavers), and Kayla Heady and Carmichael of Chouteau Grotto. Gee led a trip into upstream Thunder River to test light detection devices we are developing to monitor human intrusion in gray bat caves, which included the Kennedys (KCAG) and Rita Worden of Chouteau Grotto. The teams later met back up for a trek to UL2. One person developed vertigo early on, and was escorted out of the cave under their own power; another became seriously chilled while at UL2, but warmed up on a lightning fast trip back to the ladder. Everyone was out of the cave by 4 pm. A quick analysis of the data logger data showed

only minor floods since the middle of January 2020. The highest recorded flood level was 3.2 feet in Thunder River, at the ladder. Compared to other events seen, that is not a major event, but an extra three ft. of rising and rapidly moving water in upper Thunder would still make for an interesting and exciting visit. The stream was up perhaps two-three inches from normal on this trip, so there was no difficulty navigating. **July 12<sup>th</sup>** - Bill led Colston, Godfrey and Cooley back into the cave for a round trip to the Round Room, in order to complete a cave rescue cache inventory and partial refresh. This trip was originally planned to be a training session for Colston and Godfrey; Gee wanted to show them the route to the Round Room as part of their trip leader knowledge. We also used the trip to test some light detector systems that Gee and Cooley are developing for doing intrusion detection in sensitive gray bat colonies. The team was all in the cave by 9:10 am, and arrived at the Round Room a few minutes after 11 am. Colston and Gee went up the slope to the rescue cache and took an inventory. The cache is in a roll-top dry bag of perhaps 30 liters capacity. When they got to it, they discovered a note that Gee left the last time it was serviced ... in January, 2013! The note was in a zip lock bag and was completely soaked. Note that the cache is almost at the ceiling of the room, at least 30 ft. above the stream level. As far as we could tell, it has not flooded that high in many years. The rescue cache contents are:

ten trash bags; two partial rolls of toilet paper, in a plastic bottle; a small pot with lid, perhaps one pint capacity; one piece of closed-cell foam about 20x40 inches; and two cans of Sterno fuel, wrapped in a plastic veggie bag and then inside a quart zip lock; and ten votive candles. We removed two non-functioning cigarette lighters, and added new cigarette lighters individually vacuum-sealed. A vacuum-sealed bag with a candle, a Box of ordinary kitchen matches and another cigarette lighter was also added. There is a lot of unused space in the roll-top bag. The cigarette lighters we removed had failed strikers. They still had fuel and will burn if you light them with something else. The strikers will not turn, so there was no way to make them light. We retrieved light detection devices on the way out, and were all out of the cave by 2:30 pm. The trail-marking reflectors in the Upper Thunder passage also need to be revisited. Some are missing, some are in the wrong place, and some have accumulated a mud coat from flood events, which needs to be cleaned off.



KCAG 7/17/2020

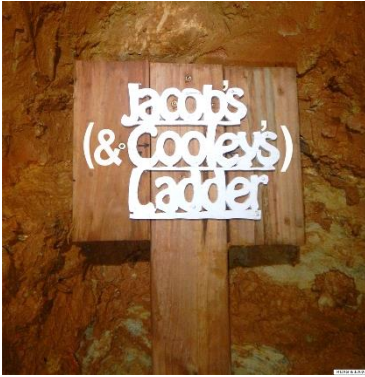
**Calibrating audio census microphones with (\$35,000) High-Res Infra-Red Video Camera**



KCAG 8/1/2020

***The New Ladder***

**July 17<sup>th</sup>**- Jim Cooley, Julie Cottrell, and Seth Colston accompanied two U.S. Fish and Wildlife Service (USFWS) biologists and a professor from St. Mary's College (part of Notre Dame University in South Bend, Indiana) to observe a joint research effort to develop a new audio bat censusing technology, at a large, privately owned gray bat cave in Camden County that Cooley had identified as a good site for this research. The same group visited another large gray bat colony in Camden County the subsequent night, with the addition of Bill Gee (KCAG) and Max White (SPG), for the same purpose. **July 19<sup>th</sup>**- Jim Cooley, Seth Colston, and Julie Cottrell did map QC work in Flippen Cave, one of the first caves Cooley attempted to survey in 2012. This cave was subsequently gated at the private landowner's request, and is now a managed cave available for visitation by permit through the Missouri Cave and Karst Conservancy (MCKC). It is, however, only 700 feet long, half of which is well decorated. The weekend's work was complicated by a request Cooley received from a local sheriff's department, relayed through the local fire department and then through the Carroll Cave Conservancy, for a team of small, hardcore cavers to conduct a missing person search in several caves near Cooley's cabin at the Lake of the Ozarks. (Cooley has surveys in progress or completed in half of these caves.) Cooley assembled Bill Gee, Seth



**Pride of Ownership**

Colston, Krista Bartel, and Max White, and turned them loose on three caves on Saturday and one on Sunday. The missing person (i.e., their body) was not found. These caves were searched because the missing person was a spelunker, who was last seen on outdoor surveillance cameras with another spelunker with whom the missing person was romantically involved, in the area of the caves to be searched. Foul



**Completing the dig**

play is suspected. Well, we did what we could; as a bonus, our small-caver team identified several hundred feet of low, unsurveyed passage which needs to be addressed – but not because it’s hiding a body. **July 20<sup>th</sup>** - Cooley and Colston visited a suspected gray bat maternity cave in southern Missouri with a USFWS bat biologist. This cave was a candidate for gating. We visited to have the biologist verify our assessment that this cave was in fact only a transient site and thus not such a high priority for protection. The biologist concurred with our opinion. **July 21<sup>st</sup>** - Cooley and Colston ridgewalked an area near Norfolk Lake to look for a reported cave unknown to the MSS. We did not locate the cave, but did conclusively establish, yet again, that ridgewalking in 95 degree weather under sunny skies in 100% humidity is not only stupid but profoundly unpleasant, and possibly dangerous. **July 22<sup>nd</sup>** - Cooley and Colston spent eight hours surveying the sadly uninhabited transient site we visited on Monday. We also tested an intrusion detector in this cave. **July 23<sup>rd</sup>** - En route home, Cooley and Colston did lock maintenance on Perkins Cave, which is also a cave Cooley manages (and issues permits for) on behalf of MCKC. We then stopped by the natural entrance of nearby Carroll cave to photograph a big new crop of spray-painted graffiti. The landowner avers that the artists have been arrested by local authorities for their talents, and anticipates that they will be compelled to clean up their mess. **Aug.1<sup>st</sup>** - Cooley led a team consisting of Colston, Tyler Skaggs, and Max White (SPG), along with two Oklahoma cavers from Tulsa, Steve and Rebecca Obermark, to a privately owned central Missouri cave, where we installed a robust, 22-foot-tall ladder, designed by Max White and assembled by White on site in the cave, to overcome a dangerous pitch known as Jacob’s Ladder. After that, a “recreational trip” to the back was provided for the volunteer help. This ladder renders the cave more or less safe for survey, to which Cooley, Colston, and Skaggs devoted the subsequent two days. This survey effort included digging out a squeeze on the second day, so Cooley could get to the back of the cave. This cave has at least half a mile of known, large passage and is our latest survey project. **Aug. 30<sup>th</sup>** - Jim Cooley and Julie Cottrell measured a large, privately owned gray bat maternity colony for a fly-over gate. Current schedule is for this gate to be built in either spring or fall 2021, depending on the state of the global COVID-19 pandemic.-- Jim Cooley.

**Lake Ozarks Grotto (LOG). Aug. 15<sup>th</sup> – 16<sup>th</sup>** – Ken Long attended the work weekend at Goodwin Sink. He reported that an MST student got the tire out that was blocking the passage. She also went 15 ft. beyond where it was wedged. The passage is really small but will have to be opened up to continue. **Sept. 5<sup>th</sup>** – Gary & Alberta Zumwalt visited Frank Hurley at Jacob’s Cave, discussing possible cave leads for Morgan Co. There were a lot of people taking tours of the cave. Frank said they had a good summer despite Covid-19.—Alberta Zumwalt

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**Caves of Missouri Discussion Group** – <http://groups.yahoo.com/group/cavesofmo>  
**Petroglyphs, inscriptions, & pictographs:** rockartmo.com

## Missouri Speleological Survey

**Fall 2020 Board Meeting Agenda**      *Sunday, September 27, 2020*

*Lloyd and Ethel Hoff's Underground Nature Preserve - Perryville, Missouri*

**Start time 10:00 AM**

### Administrative Business

- Roll call – Officers and Board
- Secretary's Report and approval of last meeting's minutes – Alberta Zumwalt
- Liaison – Gary Zumwalt
- Treasurer's Report – Don Dunham
- *Missouri Speleology* – Missouri Speleology Editorial Board

### Old Business

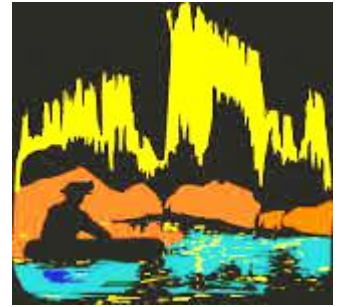
#### New Business

- Ad hoc Cave Files Committee
- Appointment of Secretary
- Elections of President and Vice President

### Projects and Announcements

- Cave files / Database
  - New caves
  - Cave maps
  - Cave reports
- Agency Reports
  - *Mark Twain National Forest*
  - *Ozark National Scenic Riverways*
  - *Missouri Department of Conservation*
  - *State Parks*
  - Others
- Affiliate Organizations Project Reports
  - Carroll Cave
  - Berome Moore
  - SEMO
  - Others
- Public Outreach
  - Facebook & Website
- Announcements
  - Thank you to MMV & MCKC

### Next meeting & Adjournment



#### CALENDAR:

**Sept. 27<sup>th</sup>** – Fall MSS meeting,  
Berome Moore pavilion,  
Perryville, MO. **10 am.**

**Nov. 1<sup>st</sup>** – Next MSS Liaison  
Deadline