

THE MSS LIAISON

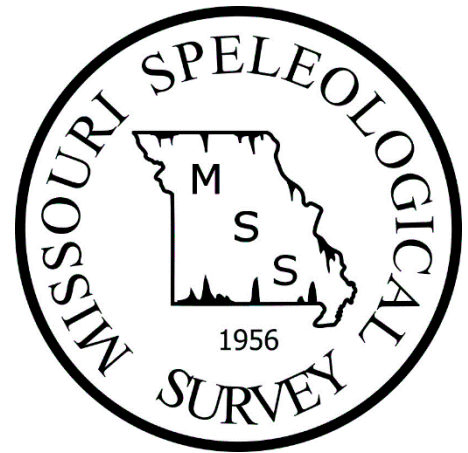
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AFFILIATE ORGANIZATIONS:

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

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Missouri Speleological Survey - President's Message October 2019 by Dan Lamping



Our last MSS meeting was held at Berome Moore Cave in Perry County on the weekend of September 14th and 15th. We had a great, mixed group, and were able to field multiple crews which included a few new cavers, a few others who were already cavers, but new to survey, along with experienced mappers, to lead the teams. Groups scattered into different parts of the cave including Walker Section, Lower Stream Annex, Formation Passage as well as other places, adding nearly 4,000 ft of passage mapped. But, just as eventful as the caving was the late night, and into the early

morning, musical entertainment, blaringly provided by a new neighbor, adjacent to the Berome property. With a diehard commitment to all-night raging, it was assured that only the hardest of sleepers would be able to get rest both Friday and Saturday nights. On more than one occasion, I think I was awoken by the nostalgic melodies of "Pour Some Sugar on Me," and other pop favorites, as they were cranked up from an annoying, yet somehow still reserved audible level of loud, to a full force blast of concert style rockin'. While many were kept up much of the night, others managed to get some sleep. The irony surely wasn't lost when even Dave Hoffman said that he didn't think it was different many MVORs.

During the meeting two awards were announced. One, the Tex Yokum Certificate of Appreciation, which is given to people, other than cavers, who in some way, have demonstrated support of the goals and objectives of the MSS, was awarded to Dennis Hogan, of St. Louis County Parks. Dennis was nominated by Joe Light, of MVG, because of Dennis' support of caver access to St. Louis County caves for education and management purposes as well for general exploration. Also, the Lang Brod Certificate of Recognition was given to Alex Litsch (pictured on the right.) The purpose of this certificate is to acknowledge dedicated cavers for their contributions to speleology in Missouri and in support of the goals of the MSS. I nominated Alex given his commitment to pushing caves to their bitter end and his dedication to documenting the caves of Ste. Genevieve County. When I first started caving it was obvious that there were a lot of old people who do it, and not as many young people, which of course, we need. Twenty years later, I'm slowly transitioning into one of these old people (I'm not there yet), so it's encouraging to see Alex and young people like him, not only taking the torch, but also stoking it up, to a brilliant light.



Many thanks to Don Dunham who has been diligently peddling *Missouri Speleology* and reliably putting out high quality issues. Our online store continues to get traffic, with Joe Light's manuscript on Cherokee Cave still selling regularly. At the last MVOR, Don set up shop and make a considerable number of sales. Lastly, the MSS Research Council recently approved \$500 to be given to the Benton Park Neighborhood Association in the City of St. Louis to offset costs of drilling a test hole at a location believed to be atop the long lost English Cave in

the Benton Park area of St. Louis. This grassroots, community organization owns an undeveloped lot, adjacent to the property where the English Cave's entrance is believed to be concealed by a building, which is owned by a group that has no interest in anyone gaining access to the cave. If an entrance is created, the MSS will be involved in mapping and documenting the cave, and hopefully another high volume selling *Missouri Speleology* issue can come out of it.

Our next meeting is scheduled for January 25th, 2020, with plans to have it at the Missouri Geological Survey building in Rolla. Come, mingle, and check out the Cave Files. If anyone is interested in presenting, please let me know, as we'll likely to have to coordinate with MCKC, assuming they meet that day as well, for use of the main meeting room. I hope to see all there. Better yet, I hope to see you underground sometime soon.

MSS Meeting Weekend - Berome Moore. I can't say much for Saturday night or the meetings on Sunday but after a Friday night of no sleep, nineteen cavers did a lot of mapping in Berome Moore Cave. Overall it was a big success with a major section of the cave survey completed entirely (Walker section) On Saturday, 3,995.2 feet of survey was obtained from 6 teams. 1,032.4 feet of this was new survey and pushed the cave to 21.754 miles in length. Mark Brooks, Jeff Fennell, Rick Ihnat obtained 567.9 feet to finish the Walker section maze. Gary Resch, Rita Worden and company obtained 394.3 feet in the Walker Section extension of Algae passage. The walker section is now complete with no leads left to map. Dan Lamping, Darrell Routt, and Michelle Leicht obtained 662.4 feet in lower annex. Joe Sikorski and Derik Holtmann obtained 514.3 feet in lower annex with Dan's team. Between the two teams they obtained 350 feet of new survey with unmapped cut around and side passages. Mark Jones, Tony Schmitt and Kathy Sovulewski knocked out 857.3 feet of survey in Formation Passage. Chad McCain, Cody Brooks and Brandon VanDalsem obtained 999.0 feet of survey by finding an overlooked crossover in the mud flats to the east outer passages, two cut around loops from the Balcony Room to the Jumpoff and finally a crossover route never mapped from the Drum crossover to Algae Passage which netted 999.0 feet total for the day with approximately 683 new survey. Thank you everyone for the hard work.- Chad McCain

Missouri Speleological Survey Files Report for November, 2019. Remember if you have new information on any Missouri caves, my email address is slagrush@gmail.com . We need your help to improve the database and make it more complete. **Kirstin Alvey Mudd sent:** -Details on a new cave in Stone County; it'll be called Spargazer for all the small dogtooth spar crystals found in the cave. It hasn't yet been fully explored, but all plan to go back soon for survey. **Jon Beard sent:** -A report on the survey of the new Spargazer Cave (about 650 ft length) in Stone County. **Jim Cooley sent:** -Photos documenting the gating of two caves for the Corps of Engineers in Taney County: Beaver Creek Cave No. 1 and 2. No. 1 was the scene of a cave rescue within the past year. Its location in the ditch of a road has made access way too easy and troublesome for the Corps. -Faunal records from a landowner trip to a privately owned cave in Hickory County. -Four photos on Moles and Toby Caves in Camden County. He also supplied topographic snapshots to show the location and routes to the caves. **Bill Gee sent:** -An update of the Stark Caverns (Miller Co.) map. **Paul Hauck sent:** -A preliminary map of Hoff Cave, in 1975 he had surveyed the cave, but thought it needed an update. The map now has a nice profile through the cave. **Scott House sent:** -Update map of Sycamore Cave in Shannon County; the update includes a profile through the cave. **Mark Jones sent:** -50 photographs of recent gate repairs on two Pioneer Forest caves in Shannon County. Six new reports for work on the ONSR and Pioneer Forest. Two monitoring forms for Pioneer Forest. -Jones also provided a backlog of almost 700 photos for cave work done over the past year primarily in Shannon County, but also Texas and Carter Counties. These have been filed in the archives. **Dan Lamping sent:** -Maps of Wet Shelter (CL=112, VR=8) and Dual Falls Cave (CL=129, VR=20) in Shannon County. - Faunal records for a trip to Mary Lawson Cave in Laclede County, which is getting a new map survey. -Faunal records for a trip to Lone Hill Onyx Cave in Franklin County. **Joe Light sent:** -Directions to 2 of the caves at MVOR in Perry County, not published in the guidebook. -A Warrenton Banner newspaper clipping on Lone Hill Onyx Cave in Franklin County, from 1929. -20 photos and 7 faunal records of a recent trip to Lone Hill Onyx Cave in Franklin County (same trip as Lamping's faunal records). **Alex Litsch sent:** -Two detailed survey trip reports to Valles Mines area in St. Francois and Jefferson Counties. -A report and photos of a new shelter in Jefferson

County, Mossy Arch Shelter, depth 30 ft from the dripline. -Litsch has been “digging” into local, sometimes historical, Facebook posts and has found some interesting data entries. Sometimes it is a photo on a new cave or maybe a lead that we don’t have in the database. -Location and photos on a new cave, Hobo Shelters in Jefferson County. This will be a new entry for the county. There is a curious concrete structure that runs the 100 ft length of the overhang of the shelter. Its use by transients seems obvious. **Jim Sherrell sent:** -A clay analysis report on Valles Mines written by Art and Peggy Palmer. -A report on three new caves in St. Francois County: Koester Cave No. 1 and No. 2, and Astral Valley Cave. A fourth reported cave is yet to be found. -GPS location for 2 caves in the Fall MVOR area of Perry County: Fritche Caverns and Pumphouse Pit. -A report on Fritche Caverns in Perry County. This is the same information that was available for attendees of the MVOR in Perry Co. Later Sherrell (with an assist from Michelle Leicht) also supplied MVOR directions to Wind Cave and Soehl Cave in Perry Co. -A book reference to the The Lost Gold Mine Cave in Perry County. Yes, we have one, but it doesn’t have any gold! Just another attempt to find investors with a “salted” mine. No, this isn’t the first salted mine in MO! **Eric Sutterlin (of Minnesota) sent:** -New cave report with all the details to fill out the Main Table of the database. Sutterlin worked with local cavers (MMV) to survey the cave, his map was also submitted. The new cave is Boulder Field Cave (CL=58) in St. Francois County. Sutterlin also supplied some information on 2 nearby caves, which is useful to distinguish the new cave from adjoining caves. -Of all the MVOR caving and photography that occurred in Perry County in mid-October, Sutterlin filed a report on the grey bats in one of the offered caves. Although there were “older reports” of greys in this cave, this is the first report filed with the MSS of activity on that weekend. More reports are coming! **Mick Sutton sent:** -160 faunal records for caves across the state. Many of the reports are for historical records going back in the 1960 and some older. Along with the faunal records came a monitoring form for a cave on the Riverways.—Ken Grush

Meramec Valley Grotto (MVG). May 11th - Alex Litsch and Chad McCain conducted a cleanup at MCKC's Grandpas Hole with Missouri Stream Team. Lots and trash and tires were removed. There was a large turnout of cavers and Stream Team members. **June 1st** - **Dan** Lamping, Tony Schmitt, Ken Grush, Don Dunham, Scott House, and Mark Jones surveyed in Sycamore Cave off the Jacks Fork River. **June 16 – 22nd** - Tony Schmitt, Korey Hart, Mary Schmitt, and Derik Holtmann spent a week monitoring caves in the Ozark Scenic River Ways - 33 caves visited. **June 29th** - Alex Litsch and Chad McCain got into a new cave that had been buried for 3 years. 765 feet surveyed to a sump. The line plot shows the sump right next to a rise pool in the adjacent, 4+ mile long cave. **June 30th** - Alex Litsch, Derik Holtmann, Nathan Durfee, Katelyn Schwoeppe, Tony Schmitt, and Brian Biggs surveyed in Valles Mines. **July 12th – 14th** - Tony Schmitt, Dan Lamping, Joe Sikorski, Derik Holtmann, Jeremy Weih, and Josh Hafner spent 46 hours in downstream Carroll surveying to a complete end in the South Fork of DL7. A little over 500 feet for the weekend. South Fork is done. **July 13th** - Alex Litsch and Matt Bliss surveyed in Crevice Cave and obtained 357 feet of virgin survey. **July 23rd** - : Alex Litsch toured Cave of the Winds in Colorado Springs, CO. **July 27th** - Chad McCain led a group of cavers on a door to door trip in Crevice Cave, Historic Entrance to Pipistrelle Entrance. **Aug. 24th – 25th** - Tony Schmitt conducted a vertical workshop on the 24th for 8 non-vertical cavers. The following day, he and Chad McCain conducted a vertical day at MCKC's most recent acquisition, Grandpa's Hole.—Alex Litsch

Chouteau Grotto. Devil's Icebox Cave Institute 'Kickoff' - A Day of Training at Rock Bridge State Park August 24, 2019: Over concern that cavers familiar with the 'Icebox' are rare, and aging, Roxie Campbell, RBSP manager, developed the concept of a "Devil's Icebox Cave Institute" that would provide training and opportunity to the caving community, Missouri State Park personnel, MDC employees, local firefighters (FF) and others who may qualify with a view to providing leadership for future research trips and surveys. On this day, 28 attendees new to the Icebox enjoyed presentations and hands-on experience. Mick Sutton presented information on invertebrates and cave ecology, Shelly Colatskie taught us all about bats, Scott Schulte spoke on leadership, Roxie shared the history of the exploration of the cave, history of the park and about risks and preparations, Jeffrey(Spike) Crews introduced cave survey for mapping, Sarah Jones, the park superintendent, covered safety and hypothermia, Rita Worden reviewed gear for caving, Jeff Page taught how to handle and transport canoes, and Kathy Christiansen talked about the map and what to expect below ground. Now we have lots of new Icebox cavers to be initiated in September when 'DI' is open, and we will do invertebrate counts and start a resurvey to

improve and complete the map of the cave. If you didn't make it this year there's always September 2020 to get into the cave.--Rita Worden. (And here is my report for this September's activities of the Devil's Icebox Cave Institute): **Sept 6:** Rita Worden and Jeff Page led Jeffrey(Spike) Crews, Bob Lerch, Laurel Hill(USFWS), Bethany Haid, and Michele Woolbright to the Left Fork for some needed resurvey there around the dome area. **Sept. 7:** Roxie Campbell, park naturalist, led a trip of 13 about a mile in for Leader Training. **Sept 12:** New data loggers were installed by Jeanette Bailey (MDC), Kathryn Womack, Kris Corbett (MDC), Sam Daugherty (MDC), and Justin Owens on a trip led by Roxie Campbell. **Sept 13:** Jeff Page led a trip for survey with Jeffrey Crews, Bob Lerch, Justin Owens, Cliff Gill, Mike Freeman, Dan Haid (FF), Jacob Ellis, Martin Carmichael, and Bethany Haid, back to the Left Fork for some mop up. **Sept 14:** Mick Sutton and Roxie Campbell led a trip of 9 for some invertebrate monitoring training. **Sept 15:** Kathy Christiansen led a trip of 7 for Leader Training. **Sept 20:** Jeffrey Crews, Bob Lerch, Tim Wolfe (MSP), Amber Edwards, Trey Harris (FF), Morgan Carson (MSP), and Jenna Stiek (MDC) made a trip to survey leads off the Big Room and begin the Northeast Passage, which goes. Trips for Sept 21 & 22 were cancelled for forecast rain. **Sept 27:** Jeffrey Crews, Rita Worden, Mike Freeman, Tim Wolfe, and Sam Daugherty resurveyed the Left Fork Of The Left Fork to connect the Paul Hauck survey, and it also continues beyond. **Sept 28:** Kathy Christiansen and Darla White led an interpretive trip of 9 people. **Sept 29:** Rita Worden led Kris Corbett, Kirsten & Seth Colston, Chris Jackson, and Amanda Rowland on a bio-survey of invertebrates and also found 3 pink planarians. Also that day, Kathy Christiansen led a survey team beyond The Wade with Jeffrey Crews, Dan Lamping, Derik Holtmann, Jadelyn Weed, and Justin Owens to complete some work near The Waterfall. There is much more to be done and many questions to be answered in this great cave, and all are looking forward to September 2020. --Rita Worden

Lake Ozarks Grotto (LOG). Aug. meeting: The program was cave trivia by Christen Easter with members guessing the answers and it was very educational. **Sept.** – Instead of a meeting, we had a grotto picnic on the deck of the gift shop at Stark Caverns, hosted by member Chaz Jesiolowski. The picnic was followed by a special blacklight tour of the cave which was amazing. We had approx. 20 people participating in the tour. A big thanks to Chaz and the tour guide for the experience. **Oct. meeting:** Chaz Jesiolowski reported on the NCA (National Caves Assn.) event which was held at Ruby Falls in Chattanooga, TN. The MCA event will be held at Talking Rocks. Ken Long reported that the Goodwin Sinkhole project will mark seven years in January. Dwight Weaver offered an interesting bit of history on HaHaTonka – It stopped flowing for a couple days in the early 1900's, which was thought to be clogged someplace. All the officers of 2019 were re-elected: Chairman – Ken Long; Vice-Chairman – Christen Easter; Sec. & Treas. – Alberta Zumwalt; MSS Rep. – Gary Zumwalt. A program on a Kiesewetter Cave grotto trip in 2015 was shown by the Zumwalts.—Alberta Zumwalt

Roubidoux Grotto (RBX). Roubidoux has a change of officers: Chairman-Kelsie Johnson; Vice Chair- Karen Hood; Secretary/Treasurer- Cheryl Keeton; MSS Rep- Andy Free. –submitted by Kelsie Johnson.

Middle Mississippi Valley (MMV). Aug. 10th - Greg Small, Dave Graves, Don and Josh Shy did a bio survey trip into Greens Cave. There was no trash and the bats are looking good. **Sept. 7th** - Jim Sherrell located three new caves in the Gasconade Formation on the Valle Mines Fault. These caves were referenced in an old book from 1931. The caves are Koester Cave I, Koester Cave II and Astral Valley Cave. **Sept. 14th** - Jim and James Sherrell, Eric Sutterlin and Adam Marty found new cave in St. Francois State Park. It is named Boulderfield Cave. They also visited two 50 foot pits: Doggette Digging and Pipistrelle Pit. Also: Michele Leicht participated on the Dan Lamping Survey Team in Berome Moore. **Sept. 15th** - Dane Driskill, Laura Belarbi and Michele Leicht checked out two caves for the Fall MVOR. They were ball Park Cave, which is behind City Hall in Frohna, MO, and Chevy Pit, which was located again from an old 1980s map in Altenberg, MO. The owner would not allow visitation of the pit for the MVOR. They did not descend the pit. There were three old Chevys and one Ford over the pit. **Sept. 19th** - Jim Sherrell and Ken Grush surveyed Koester Cave I (found on 9/7). The survey produced 200+ feet. **Sept. 21st** - Four survey teams worked in Big Lode Cave (Formally known as Valles Mines). A total of 1,800 feet of new server was gained. Michele Leicht and Larry abeln worked on a team that produced 200 +/- feet. Jim and James Sherrell participated on another team and their survey gains were not reported. They had some vertical issues and needed some help to exit the cave via the pit entrance. **Oct. 12^t -13th** – Fall MVOR trips: Jason Hanewinkel

led four participants on a door to door trip from Tom Moore to Berome Moore. Doug Leer led six participants on a trip into Berome Moore. Larry Abeln had five people on a trip to Strieler Pit. James Sherrell Led Denis Vaughn and Doug Feakes down Cat Track Passage in Berome Moore. James reports a large amount of foam in the 2nd stream crossing in the passage. Doug Leer also saw foam in a side stream flowing into Mainstream during his trip. Some investigation is needed to try to determine the origin of the contamination. Jim Sherrell and Eric Sutterlin did a door to door trip in Friten Cave. Jim reported that it was a cool trip after 30 years. Jim Sherrell and Dave & Shelly Jackson visited Kassel and Roth Caves. Lois Walsh visited the Ball Mill Resurgence. The resurgence was dry so there were no bouncing rocks, but she did observe a flock of white pelicans soaring in formation overhead.—Doug Leer

Springfield Plateau Grotto (SPG). Sept. 1st—Treavor Bussard, Jon Beard and Scott Campbell joined Matt Beeson, his father Bud and brother Mike in the initial survey trip to Mary Lawson Cave (Laclede Co), a lengthy gated closed cave managed by the Missouri Department of Conservation as a gray bat refuge. The teams mapped a combined 990 feet of the mile-plus long cave. **Sept. 2nd**—Dillon Freiburger, Jon Beard and Doug Baker were joined by Aaron Thompson and Claty Barnett of Arkansas in a day's survey in Beaver Creek Cave (Taney Co). The cave is developed in the Cotter Dolomite and is an estimated 600 to 700 feet long. Some mop up survey will finish the project. Fauna was recorded during the survey. **Sept. 8th**—Spargazer Pit Cave was visited by Treavor Bussard and Brandon Van Dalsem and others. **Sept. 13th- 16th** - SPG member Jim Cooley led the Beaver Creek Caves gating project, on Bull Shoals Lake. This cave was gated after a local youth became entrapped in Beaver Creek Cave #1 in October, 2018, causing the U.S. Army Corps of Engineers (USACE) to declare two Taney County caves "attractive nuisances." Cooley was joined in this effort by SPG members Doug Baker, Max White, Cheryl Paulson, Charley Young, Stephanie McCarty and Mark Collier (SPG). **Sept. 14th**—Nicole Ridlen, Jon and Alicia Beard and Lorin O'Daniell (the latter of PEG) reattached five pieces of stals in the Formation Room of Berome Moore Cave (Perry Co) while other teams were surveying in other parts of the cave. Afterwards, Jon and Alicia rejoined five pieces of stalagmites in the Cat Track Passage. **Sept. 16th**—Brandon Van Dalsem, Nicole Ridlen and Jon Beard of SPG, Rita Worden of Chouteau Grotto and Shelly Colatskie of MDC taught groups of participants of the Association of Missouri Interpreters about cave surveying and cave bio monitoring in Moonshiner Cave (Barry Co) in Roaring River State Park. Other groups of participants were taught about dye tracing by Ben Miller and Bob Lerch as well as other educational opportunities. **Sept. 23rd**—Jon and Alicia Beard spent the day doing additional photography in Bridal Cave (Camden Co) as well as karst features at Ha Ha Tonka State Park. **Sept. 25th**—Representatives from various organizations and agencies met to discuss gating and fencing of Spargazer Pit Cave (Stone Co). After an initial meeting, the group met at the cave entrance to measure, photograph and make plans. Participants included Treavor Bussard (SPG), Jon Beard (MCKC, SPG), Jim Cooley (CRF), Kirsten Alvey-Mudd (MoBat), Bree McMurray, Larry Wilson (and others) of MoDOT, Kearby Bridges (MDC) and others. **Sept. 26th – Oct. 3rd** - Cooley led a large team that built a large chute gate on Cobb Cave in Stone County, a gray bat maternity site. SPG members participating in this project included Brian Moore, Charlie Young, Cheryl Paulson, Doug Baker, Mark Collier, Matthew Cruise, Max White, Scarlet Casey, Dillon Freiburger and Steph McCarty; in addition, SPG treasurer Brian Moore was able to arrange for several volunteers from his employer, Holiday Hills Resort, to participate in the effort, who were a huge help. SPG also made a grant out of our gating fund of up to \$ 2,000 to cover expenses. In the event, \$871.90 was spent on the Cobb Cave gating project. (See KCAG Liaison entry for more detailed information on, and photos of, these two gating projects.) **Sept. 28th**—Hannah Sanders, Dillon Freiburger, Treavor Bussard, Matt Beeson (his brother Mike and father Bud) continued the survey of Mary Lawson Cave (Laclede Co), The teams surveyed 726 feet in the Bat Passage, bring total of the survey to the 1,700-foot mark. **Sept. 30th**—Jon and Alicia Beard visited Schermerhorn Cave (Cherokee Co, KS) while in the Joplin area. Forty-nine years ago, this was Jon's first "wild" cave. Jon would later map the cave in 1986 with Jim Young (and other Kansas cavers) to 2,566 feet, the longest cave in the 55-square mile Ozarks terrain that snuck across the state line into Kansas. Because of seasonal gray bats, discovered while mapping the cave, it is the only gated cave in Kansas. It is located in the Southeast Kansas Nature Center, a regional park. **Oct. 5th**—Jon Beard accompanied Pic Walenta, Kristen Godfrey, Seth Colston, Shannon and landowner Nathan Burton in spray paint graffiti removal in the passage leading to Rebecca's Well in Old Spanish Cave (Stone Co). The restoration has come a long way with at least a couple trips remaining to finish? Also---Dan

Lamping, Joe Sikorsky Sammy Wentz, and Mitch Lawson of MDC surveyed 483 feet and the bat passage. Kayla Sapkota and Matt Beeson surveyed 682 ft and the Bear Passage in Mary Lawson cave (Laclede Co.). Total survey for Mary Lawson cave this summer was 2881 ft. Great job everyone. **Oct. 8th**—Jon Beard, substituting for Melvin Johnson, spoke to the Southwest Missouri chapter of Missouri Master Naturalists about cave ecosystems and cave biology using an SPG PowerPoint program filled with cave critter photos. **Oct. 12th–13th** –Matt, Bud & Mike Beeson did some Cartography support working along Kentucky Avenue between the frozen Niagara entrance and new entrance in Mammoth cave, Kentucky. Also surveyed 200 feet of the B survey that goes up over Grand Central. **Oct. 14th**—SPG’s own Melvin Johnson and Deanna Stuckey became Mr. and Mrs. at Bennett Spring State Park. Among the attendees were Charity Hertzler, Jon and Alicia Beard of SPG. Later in the day, Jon and Alicia hiked to Bennett Spring Natural Tunnel (Laclede Co) to take advantage of the autumn afternoon. **Oct. 25th**—Several cavers converged at the entrance to Spargazer Pit Cave (Stone Co) to survey, bio-inventory, study the geology and photo-document this recent addition to the Missouri cave list. One survey team, consisting of sketchers Matt Beeson and Dillon Freiburger and instrument operators Treavor Bussard and Aaron Thompson mapped the northeast half of the cave. The other survey team, consisting of sketcher Ben Miller and various instrument readers including Brent Biely surveyed the southwest half of the cave. While that was happening, Kirsten Alvey-Mudd and Jon Beard were conducting bio inventories of the cave. Brandon Van Dalsem, Jon Beard and Kirsten were also taking dozens of photographs of the cave. Jon also studied the geology of the cave (a report was written and sent to the cave files). Two MoDOT staff also dropped the pit and were led by Jon on a geological guided walk through the cave. Up top as the surface crew were Stephanie McCarty, Mark Collier, Katie Miller, Hannah Sanders and others. **Oct. 26th** –The Marvel Cave Celebration for tour guides was attended by SPG members, Hannah Sanders and Ron Martin, and others. The cave was visited by some of the attendees. **Oct. 29th** – Treavor Bussard and Jon Beard guided Doug Gouzie’s MSU speleology class through Breakdown and Fitzpatrick Caves (Christian Co.). This is an annual session that began in the 1980’s for course GLG350.-- Report by Max White, materials provided by Jonathan Beard, Matt Beeson and Jim Cooley.

Kansas City Area Grotto (KACAG: Aug. 31st- Bill Gee led another survey trip to Stark Caverns. Jon Beard (SPG) and Bruce Archambault (Rubidoux Grotto) constituted the survey team. The goal was to survey from the Bleeding Heart into the off-trail area. They mapped a loop from the Bleeding Heart through a short crawl to a room big enough to stand in, and from there mapped back around through a stream (more like a trickle) to the Overlook. From below, one has no idea the overlook exists, as it cannot be seen until you are in it. Directly across from the Overlook it appears that the passage keeps going. A ladder will be deployed on the next survey trip in November to access this passage. From the stand-up room, they explored a lead that goes down a canyon. There is a tight squeeze at the bottom which was not penetrated. The survey effort concluded about 4:30 pm. In addition to the survey, the team collected some other interesting data on CO₂ with the new meter recently purchased for Mosby Cave. At the display cases CO₂ measured 1,519 parts per million (ppm). At the Bleeding Heart CO₂ measured 2,842 ppm when they started the day, and 5,826 as the team was leaving. In the stand-up room past the crawlway it was 5,568 ppm. For perspective, OSHA recommends no more than 5,000 ppm for an eight-hour work day, and no more than 10,000 ppm for a two-hour work day. Residential indoors are recommended to be under 1,000 ppm. Gee was a little surprised to see the CO₂ level this high. Stark



Surveying a spring cave in Shannon County

Caverns does not have any decomposing vegetation. Humans breathe out CO₂, so there will be some build-up from the tour groups going through. **Sept. 3rd** - Gee led a survey trip including Laura Anthem Jaynes to Vanderman Cave in Hickory Co. and finally finished the survey of this low, wet cave. He also took the CO₂ meter into the cave. At the entrance the CO₂ level was a little under 500 ppm, which is normal for open air. In the Junction Room CO₂ was over 5,000 ppm, and at the end of the C survey it was off the scale, meaning over 10,000 ppm. (This represents at least 1% ambient CO₂.) They checked the CO₂ at station C24 twice, and both times it was off the scale. **Over a long Labor Day weekend-** Jim Cooley led a survey team of Seth

Colston, Julie Cottrell, Shannon Robinson, and Tyler Skaggs to continue the survey of some caves on private property in north Shannon County. Aug. 31st- A low spring cave was the first objective, wetsuits required, and an additional 12 survey stations, all short shots, were added at the end of the cave to a constriction that the smallest caver could not pass. Afterwards, the map of the adjacent cave (660 feet long) was checked for accuracy. The next day, Cooley, Colston and Robinson continued the on-going survey of a nearby spring cave on a second landowner, adding 20 stations and 316 feet of passage to bring the total for this cave to 1,913 feet. Sept. 2nd - Colston headed for home and was replaced by Ken Grush. Cooley instructed Cottrell and Grush instructed Robinson as these two fledgling cave surveyors drew their first sketches of several hundred feet of a tunnel cave, all walking passage. Everyone was pleased with the results! The team then met with a new landowner, a true cave and spring enthusiast himself, and got some solid leads on caves not (yet) known to the MSS. Not only that, but this landowner just bought an additional 400 acres in an area loaded with caves and springs, which will need to be ridgewalked this winter. He consented to us placing cross-locks on the gates around his property so we could have anytime access, which we immediately did. Sept. 3rd - Cooley and Grush led a landowner trip into a 1,855-foot-long already-mapped high-volume spring cave on the property, where we discovered that this well-known cave, mostly walking passage with 30-foot-high ceilings, was a sizable gray bat colony – something that had NOT been suspected, nor previously reported in the cave database. Approximately 700 clustered bats were encountered, with moldy guano suggesting usage by perhaps 3,000-5,000 individuals. A desiccated tri-colored carcass was also noted near the entrance, undoubtedly a victim of the usual fungal

pathogen. Sept. 4th - Enroute back to Kansas City, Cooley and Cottrell met with the owner of Roubidoux Cave in Waynesville (PUL-001), to assess and measure the entrance for a fly-over gate. The structure the landowner favors would be similar to the Great Spirit Cave fly-over gate, and about as large. Cooley will produce a design and materials cost estimate for this structure. We then stopped by the office of Karen Hood, of Roubidoux Grotto, to discuss with her and the landowner logistical issues and possible funding sources. **Sept. 7th**- KCAG's Rick Hines, the founding member and current President of the Carroll



Cave Conservancy, led a work detail to the silo entrance to Carroll Cave. Riding down from Kansas City with Rick in his tool-laden one-ton dual-axle diesel crew-cab pickup were Jay and Nick Kennedy, Jim Cooley, Julie Cottrell, and Shannon Robinson. Meeting us at the cave were KCAGers Randy Breugger and Jeff Page, plus Rita Worden and Martin Carmichael of Chouteau Grotto. Jamie Euliss brought a commemorative plaque up from Springfield, honoring Chris Danuser, Greg Fry, and Ron Jaeger. While Jay, Nick and Shannon worked in the silo, everyone else set to fixing the rubber sheeting on the roof of the schoolhouse, which had blown loose. After an hour or so of pulling nails from the 2x6s in the silo, the skycrapper was “packaged up” with reinforcing 2x6s. The 4x4 posts bolted to the skycrapper to keep it from falling over were unbolted with great difficulty, and much expenditure of time. Then Greg Fry was called, who owns a large Massey Ferguson tractor. He came over and strapped the skycrapper to the bucket of his tractor. We then very slowly and gingerly moved it out of the existing campground, past the schoolhouse, down the gravel road, into a cow pasture, and through four gates up the hill to the silo. We had to stop several times around the schoolhouse to climb up on a ladder and cut away obstructing tree limbs. The whole process took from about 11 am - 4:30 pm, quite a bit longer than anticipated. Rick then took a poll of his riders, finding everyone was willing to stay for a few hours more, which allowed us to



Charley Young at Beaver Creek Cave #1



Jim Cooley at new gate on Beaver Creek Cave #2

evaluate the anchoring of the ladder in the Carroll Cave shaft, and remove the old shaft lights. Eighteen-year-old Nick Kennedy, KCAG's newest member, got his first visit to Carroll Cave. We left through those four gates at 8:45 pm, had supper at El Caporal in Camdenton as they were putting the chairs up on the tables for the evening. We got back to Rick's house in Stilwell, Kansas at 1:30 am. **Sept. 10th** - Jim Cooley headed for the CRF gear depot at the new National Park Service (NPS) facility in Winona, Missouri (formerly the U.S. Forest Service Winona Ranger Station – USFS still controls part of the compound) to inventory the CRF and MCKC gating gear, which had been moved to more secure quarters in the NPS area. On Wednesday, Cooley inventoried all of the gating gear, a task made **very** easy by the extensive organization, inventory and labeling work conducted by Mark Jones, Dennis Novicky and Ken Grush, under the direction of Scott House. Gear was staged for loading the next morning for the Beaver Creek Caves gating project, on Bull Shoals Lake. This cave was gated because a local youth demonstrated that it was an entrapment hazard in October 2018, when his buddies could not extract him from the cave and the local fire department was required. This event caused the U.S. Army Corps of Engineers (USACE) to declare the two caves along Devil's Teatable Road in Taney County "attractive nuisances." The project had been postponed for months due to the access road being flooded by record high water on Bull Shoals Lake.

On Thursday, Cooley loaded up the gear for this project and an immediately following gating effort in Nixa, and proceeded to the Beaver Creek Public Use Area, where he set up camp. USACE maintains a very nice campground here with all kinds of camping amenities: concrete pads, running water, flush toilets, hot showers, picnic tables covered by pavilions, and electrical hook-ups. The camping (at four premium sites) was free, courtesy of USACE. Later that night, Cooley was joined in camp by primary welder Aaron Thompson (Boston Mountain Grotto), and Rick Hines and Jeff Bowman of KCAG. On Friday, the "camp" team met Ty Fowler, USACE biologist and USACE project lead for this effort, and Doug Baker (SPG) at the site. These six put in a long day, and made good progress getting the gate to Beaver Creek Cave #1 (TNY-016) framed in and pinned. Complicating construction of this gate was the fact that it had to be located inside the cave, at the end of a 20-foot-long crawlway, 10 feet of which was a belly crawl. Ground preparation also began on Beaver Creek Cave #2 (TNY-197), just down the road. Further complicating this project was the fact that the entire job site had to be torn down every night, and all gear and materials not nailed down removed. That evening, the "camp team" was joined by Stephanie McCarty and Mark Collier (SPG). On Saturday, Doug Baker showed up at 6 am to put on a big, country-style breakfast feed for the camp team, even though he had to attend a wedding that day and could not help with the gate construction. At 9 am, Fowler showed up, grabbed the steel trailer, and the "camp team" of Fowler, Cooley, Hines, Bowman, McCarty and Collier headed off to the caves, where they were joined by Max White, Cheryl Paulson, and Dillon Freiburger of SPG. We were also joined by Nathan Burton (the Old Spanish Cave landowner, for whom we gated two caves in the spring) and his son Jacob Burton, along with Terrell Brown, Nathan's uncle who was an experienced welder. Great progress was made, after which Steph McCarty whipped up an impressive repast of delicious chili mac for the camping crew. On Sunday, work continued, minus the Burtons and Brown, but with the addition of Doug Baker and Charley Young, longtime SPG member and an expert welder. Working until 6:45 pm, Charley was able to complete the gate at Beaver Creek Cave #1, while very good progress was made on the second gate. That night, Doug Baker put on another epic feast for the camp team, with bacon-wrapped shrimp for an appetizer, followed by bacon-wrapped filet mignon grilled to order, baked potatoes with sour cream and butter, and a sautéed squash & pepper vegetable medley



DJ Hall presents at the LENS School

every bit as delicious as the other courses. On Monday, Baker, Cooley, Fowler, and Thompson completed the work on the second gate, in full sun during the morning hours in temperatures over 95 degrees, finishing this project up at 4 pm. DJ Hall was invited to give a caving presentation to the 3rd and 4th grader at Kearney Junior High School on Sept. 29th. These students are participating in a new pilot school opened in August called LENS (Learning & Exploring through Nature & Science). The focus is to teach students by getting them out into nature and to learn by doing. One of the units is Missouri caves, so they invited KCAG as a partner, to teach the students about caves, caving safely and the impact humans can have on caves. **Sept. 28th** - Rick Hines led a "landowners' trip" into Carroll Cave. Four folks from the

Fredericks, a local family that built our new road, and Danny Schupbach, a gentleman who provided great assistant during the construction of the shaft, plus two of his friends, saw Carroll for the first time. They made their trip to Thunder Falls, the Carroll Passage and Angel Pool Passage without a problem. They enjoyed their trip and were very complementary of our effort. The rest of the 23 participants were CCC members, with about 10 new members making their first trip. Four different trips were conducted, with Richard Cindric, Rita Worden, and Bill Gee also serving as trip leaders along with Hines. **Oct. 4th weekend** -KCAG President Pic Walenta led a restoration trip to Old Spanish Cave at Reed's Spring in Stone County. With some kind of a bug going around

they had a few drop off the team roster, but still mustered a sizable force of Shannon Robinson, Seth Colston, Kristen Godfrey, Jon Beard and our newest KCAG members, landowners Nathan & Amy Burton, with their sons Jacob and Zach. The crew had a chance to try out **all** our new restoration gear. Despite the Rebecca Well's passage being full of challenges, they discovered most of the walls were covered with scallops, which made the removal of spray-painted graffiti VERY tedious. Seth Colston spent two hours removing one word. The Dremel tools are what really rocked this area, allowing the team to make some serious head way. Jon Beard, SPG's restoration guru, gave big kudos to the resto teams, past and present, estimating that this highly damaged cave and trashed surface area is now about 80% restored. This assessment says a lot, as this was only our fourth resto trip! After a full day of restoration work, that night most of the team made their way to another one of the eleven caves on the property, Cathedral Cave, gated by Jim Cooley and company last spring. A tight squeeze entrance into some fine rooms of beauty did not disappoint. **Sept. 26th - Oct. 3rd** -Cooley led a large team of cavers, cave landowners, Missouri Bat Census (MOBat) volunteers, Missouri Department of Transportation (MODot) volunteers, Missouri Master Naturalists, and Missouri Department of Conservation (MDC) employees in the construction of a large chute gate



Kristen Godfrey rescues a friend from Cathedral Cave.

on Cobb Cave in Stone County, a gray bat maternity site. The project required over 100 person-days of labor and eight full calendar days, and consumed ten tons of steel. Participating were KCAG's Julie Cottrell and Jeff and Tierney Bowman; Missouri Bat Census's Kirsten Alvey-Mudd (MOBat executive director, who provided three fine meals a day plus hard labor on the gate itself), Mary Casey, and Mary's 15-year-old son; MSM's Joe Williams and BMG's Aaron Thompson, our primary welders who welded for the entire project; cave owners Bruce and Barbara Archambault, Nathan and Zach Burton, and Randy Austin; Springfield Master Naturalists Mort Shurtz and Richard Herman; MODot's Bree McMurray and her daughter Sofie; MDC's Chez Kleeman, Dave Woods, Dillon Freiburger, Jeannette Bailey, Kelly Rezac, Kevin Hedgpeth, Kevin Welsh, Kris Corbett and Rhonda Rymer; SPG's Brian Moore, Charlie Young, Cheryl



Drone view of Cobb Cave gate under construction. (Note the fish-plate arrows, to direct bats toward the new entrance.)



Cobb Cave gate, Nixa, Missouri, completed

Paulson, Doug Baker, Mark Collier, Matthew Cruise, Max White, Scarlet Casey, and Steph McCarty; and several volunteers from Holiday Hills Resort, whose participation was arranged by Brian Moore, and who include Claude McGeough, Curtis Bond, Jason Garnett, Michael Mooney, Milton Beeson, Quentin Willcockson, Robert Ramirez, Will Stratton. **Oct. 5th** - Cooley led a team consisting of Joe Williams (welder, MSM), Tyler Skaggs and Noah Siedmas to repair a breach in the entrance beside the gate protecting Lewis Cave (RIP-001) in Ripley County. **Oct. 19th** - Cooley led a crew consisting of Julie Cottrell and Bruce Archambault into Mill Creek Cave in Pulaski County, to do quality control checks on the map. **Oct. 23rd** - Gary Johnson led Jim Cooley along with the new landowner and some of his family

members through a large gray bat cave in Hickory County. **Oct. 26th** - Bill Gee led what was supposed to be the annual bat census trip in Carroll Cave, which historically goes down the Carroll River passage from the shaft entrance to the Mountain Room, and back. However, only four people had signed up for the trip, and when one of them had to drop out at the very last minute, plans changed. Neither of the other two participants, Seth Colston and Hou Zhong, had ever been past the water barrier. Gee was concerned that if something were to happen to him in the far reaches of the cave, they might have trouble finding their way back to the ladder. So Colston and Gee hatched a plan to do a shortened version of the trip. They would collect data from the data loggers, do an isopod and other critter count, and check the status of the guano piles only out to the Lunch Room. They would not get a complete bat count, but at least would get some data. The team entered the cave at 9:30, and were out by 2 pm. Seventeen guano gauges were checked. A few had guano on them, and a couple had significant guano, so Gee was able to verify that the gray bats are still using the cave in numbers. (The full results of the trip are on the Carroll Cave website, along with photographs.) Gee will reschedule the full-distance Mountain Room trip in the near future. **Oct. 27th** - Jim Cooley led a team consisting of Julie Cottrell and Ginny Friedrich to Onyx Mine Cave, on an MDC Conservation Area in Camden County, finishing up the survey of what turned out to be a 556-foot-long mined cave. A ladder was required to reach the highest areas. -Jim Cooley



Photo-documenting speleothems in Mill Creek Cave

MSS MINUTES. The Fall 2019 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on September 15th at the Berome Moore pavilion, Perryville **Introduction of Officers:** Dan Lamping, President; Scott House, Vice-President; Don Dunham, Treasurer; Alberta Zumwalt, Secretary. **Roll Call of Directors:** Al Quamen, LEG; Alicia Wallace, MCKC; Nicole Ridlen (proxy for Jim Cooley), KCAG; Ken Grush (proxy for Max White), SPG; Jeff Fennell, Daedalus; Bill Heim, OHG; Lorin O’Daniell), PEG; Rita Worden, Chouteau; Josh Cooper (proxy for Gary Resch), SEMO; Gary Zumwalt, LOG; Jim Sherrell (proxy for Doug Leer), MMV. Absent were: CAIRN, CCC, MSM & Roubidoux. **Secretary’s report.** Alberta Zumwalt reported that the minutes of the Spring 2019 meeting were distributed after the meeting to the Directors and Officers and were printed in the May-June issue of *MSS Liaison*. The minutes were approved. **MSS Liaison.** Gary Zumwalt reported cash on hand of \$417.48; Sending out 39 paper copies and the rest as electronic copies, the next deadline is November 1st. **Treasurer’s Report.** Don Dunham had sent out the report electronically before the meeting and copies were distributed at the meeting. **REPORT OF THE TREASURER – September 12, 2019 - ACCOUNTS:** General fund \$9,976.85; Subscriptions *Missouri Speleology* \$7711.27; Research Fund \$9,724.78; Anne Johnson Data Fund \$18,154.77. Affiliation fees \$450.00; Subscriptions *Liaison* \$231.00; Total \$46,248.67. **ASSETS:** Savings bonds \$2,000.00; Interest checking \$8248.67; Certificates of deposit \$36,000.00; Total \$46,248.67. **Missouri Speleology.** Don Dunham reported that Vol. 60 & 61 are printed and can be picked up

today and the rest mailed. Vol. 59 – Vadose Speleogenesis of the Pierson Limestone by Jon Beard is sold out and will have to be reprinted if more requests are received. Vol. 58 – The Lemp Brewery Caverns & Cherokee Cave was sold out and has been reprinted. Don pointed out that Mo Speleo has received donations from CRF, mainly because of the work Scott House has been doing. Scott said two issues concerning Mark Twain National Forest had the printing subsidized. He said that Don and others do not take funding for doing the issues. They have material in the works. Among them are Floodwater maze caves and another North Fork issue. Don said that Tom Aley is doing remembrances but he may try to publish as a book. Pres. Lamping said that Joe Light is working on Caves of St. Louis. **Cave files/Database.** Ken Grush reported about 50 new caves and 50 new cave maps. Mark Oliver's wife who lives in Oregon, has boxes of cave material. Mark Jones said he will be going there and can pick it up. Jim Sherrell said he has been sending his slides to a company to make them digital at a reasonable price. Scott House said he has Jerry Vineyard's slides and he is interested in sending them to that company, paid for by the MSS. Jim will send him the info on the company. Ken said he has Jerry Vineyard's field notes from 1960-1969 and 200 cave reports. He has a collection of newsletters for anyone that wants them. Scott said the MSS Board voted in May to buy file cabinets for Winona. The cabinets and files are now secured at Winona Forest Service Facility. **Agency Reports.** Mark Twain: Scott House reported that the Butler Hollow Project is finished. Regular projects on Ozark Riverways continues. Starting Oct. 1st, projects will have to be approved. MDC – Pres. Lamping said that some people have approval permits but not much done there. Scott House said the city of Perryville now owns the historical entrance to Crevice. The city needs money for a sign project which will get funding from the Lad Foundation and CRF. Scott would like to see the MSS and the MCKC included. The city will also ask Farm Bureau. Scott said they will start with 10 signs and might add more later. Al Quamen made a motion to appropriate \$500 toward the City of Perryville's sign project. Seconded by Alicia Wallace. Passed. **Affiliate Organizations Project Reports.** Berome Moore - **Surveying** was done in the cave on Saturday. Alex Litsch reported on a meeting with the city of Ste. Genevieve. They would like to do what Perryville has been doing, concerning the caves. **Public Outreach.** Pres. Lamping said to let him know if anyone has something for Facebook or the Website. Scott house said there is a video coming out on Perry County which explains what is being done in Perryville. He said it is very good. Rita Worden expressed concern over CAFO (concentrated animal feeding operation) that is occurring in some Missouri counties, especially Cooper County. She sited limited regulations, resulting in contamination of ground water. She asked that everyone pay attention to what is happening. **Announcements.** Pres. Lamping said that the Tex Yokum Certificate of Appreciation goes to Dennis Hogan for his work in St. Louis County Parks. He was nominated by Joe Light. Pres. Lamping presented the Lang Brod Award to Alex Litsch. Pres. Lamping expressed thanks to MMV and MCKC for meeting place. **Next meeting:** January 25th, 1 pm in Rolla. – Respectfully submitted, Alberta Zumwalt, Secretary.

MSS OFFICERS:

President – Dan Lamping, 4501 Clarlane Dr., St. Louis, MO 63128 314-775-8584 Lampingdaniel@yahoo.com
Vice-President – Scott House, 1606 Luce St., Cape Girardeau, MO 63701 573-651-3782
scott_house@hotmail.com
Treasurer - Don Dunham, 147 Ron de Lee, Arnold, MO 63010. 402-203-3191 don_g_dunham@yahoo.com
Secretary - Alberta Zumwalt, 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com

MSS DIRECTORS:

CAIRN – Craig Williams, 5454 Mardel, St. Louis, MO 63109. 314-695-1012 cwilliams@cairstl.org
CCC – Krista Bartel, P.O. Box 193, Versailles, MO 65084 816-812-5206 Kbartel1088@gmail.com
Chouteau – Rita Worden, 22762 Valley Dr., Jamestown, MO 65046. 573-673-3388 wordenrl2323@yahoo.com
DAEDALUS – Jeff Fennell, 3344 Dakota Hills Dr., Pacific, MO 63069 636-575-0669 kavman87@yahoo.com
KCAG – Jim Cooley, 819 West 39th Terrace, Kansas City, MO 64111-4001. 816-763-8111 coolstoi@kc.rr.com
LEG – Al Quamen, P.O. Box 292, Carbondale, IL 62903. 618-549-2550 carbide@globaleyes.net
LOG – Gary Zumwalt, 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com
MCKC – Alicia Wallace, 600 Ellwine Dr., St. Louis, MO 63125 314-892-4351 caversquirrel1@aol.com
MMV – Doug Leer, 730 Lakeshore Meadow Dr., Wildwood, MO 63038. 636-207-8468 dogleer@gmail.com
MSM – Jessica Self, 6 Karen Ann, Sullivan, MO 63080 573-587-2794 Gneiss.self@yahoo.com
MVG – Alex Litsch, 2156 U.S. Hwy 61, Festus, MO 63028. 314-914-7010 alitsch6@gmail.com

OHG – Bill Heim, 2025 W. FR 178, Springfield, MO 65810. 417-889-0640(H) build_it@juno.com
PEG – Lorin O’Daniell, 4515 Faraon-Apt. F, St. Joseph, MO 64506. 816-646-3240 lorinodaniell@gmail.com
RBD - Andy Free, 129 Hull Dr., Waynesville, MO 65583 573-528-7506 freea@embarqmail.com
SEMO – Gary Resch, 6151 Farthing Rd., Odin, IL 62870 681-780-3799 giresch@gmail.com
SPG – Max White, 2748 W. Maplewood, Springfield, MO 65807. 417-880-8475 bildmwc@aol.com
Please note: new director for RBD.

ADDRESSES:

Missouri Speleology Circulation Manager- Bill Pfantz – Wmpfantz@aol.com
MSS Liaison Editor - Gary Zumwalt, 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com
MSS store - Don Dunham, 147 Ron de Lee, Arnold, MO 63010. 402-203-3191 don_g_dunham@yahoo.com
Research committee -Dr. Robert Lerch, Dr. Michael Sutton, Doug Gouzie and Jeffrey Crews
Historian- Dwight Weaver, 38 Village Marina Rd., Eldon, MO 65026. 573-365-1171 dwightweaver@charter.net
Cave Files – Ken Grush, 32 Circle View Dr, Fenton, MO 63026. 636-600-0369 slagrush@gmail.com
MSS web site –www.mospeleo.org **Carroll Cave Conservancy website** <http://www.carrollcave.org>
Ozark Caving web site– www.ozarkcaving.com **MCKC website** – <http://www.mocavesandkarst.org>
Caves of Missouri Discussion Group – <http://groups.yahoo.com/group/cavesofmo>
Petroglyphs, inscriptions, & pictographs: rockartmo.com

CALENDAR:

Jan. 1st, 2020 – Next MSS Liaison deadline.

Jan. 25th - Winter MSS Meeting, Missouri Geological Survey Annex Bldg., 111 Fairgrounds Rd., Rolla – Meeting starts at 1 pm.
