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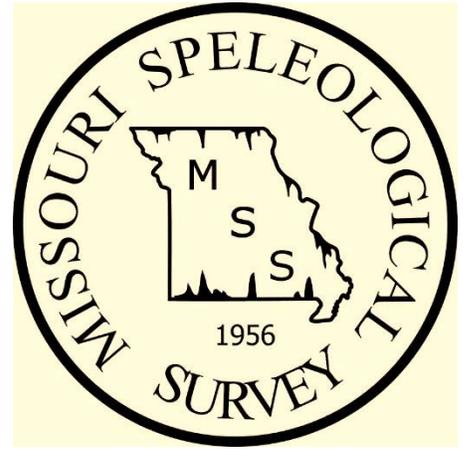
September-October 2020

AFFILIATE ORGANIZATIONS:

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

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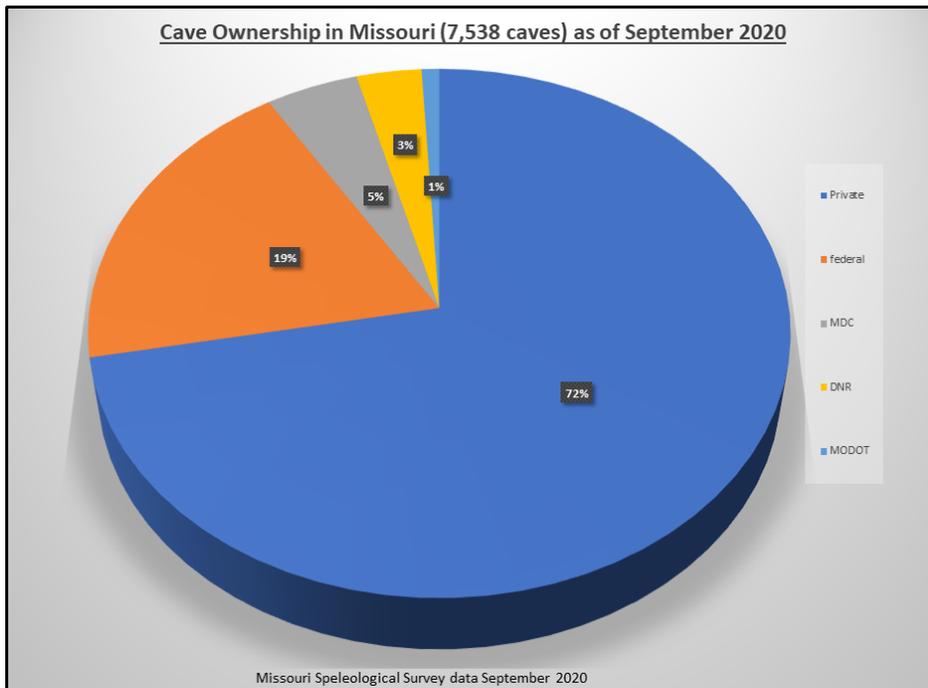


Missouri Speleological Survey- President's Message November 2020 by Dan Lamping

I'd like to share a graphic that Shelly Colatskie put together with MSS data provided by Ken Grush. It shows that 72% of the documented caves in Missouri are privately owned. Yet the data we have on the 23% of caves owned by state and federal agencies, far outnumbers that which we have on privately owned caves, which accounts for nearly 3/4 of the known caves in the state. This is a major area of potential improvement for us as an organization, to expand upon the knowledge and information we have on privately owned caves in the state since there are over 5,400 of them. We have the data to build off of and the means of sharing it with capable cavers, interested in knocking on doors and hitting the hillsides, hollows and sinkhole



planes with GPS in hand. But we need those willing people, who will follow through with expanding upon the data by writing descriptions, directions, reports, etc. and sharing it back with the MSS to catalog. If you are interested in working to improve private cave data in a given area, please reach out. Prior to our last meeting, I received a letter indicating disapproval of an aerial overlay that was published in the last *Liaison*. At the meeting I spoke to my disappointment in how some individuals handled the issue, apologized and removed the



contraband overlay. Now seems like a good time to review the purposes of our organization, lest we forget.

Constitution of the Missouri Speleological Survey

ARTICLE I: NAME The name of this organization shall be Missouri Speleological Survey, Incorporated. By Speleological it is meant those sciences which are devoted wholly or in part, to the study of caves.

ARTICLE II: DURATION The terms for which the Missouri Speleological Survey, Inc., herein after referred to as MSS is organized shall be perpetual.

ARTICLE III: PURPOSES OF MSS This organization is organized and will be operated exclusively for educational and scientific purposes within the meaning of Section 501-C (3) of the United States Internal Revenue Code of 1954 (or corresponding revisions or any future United States Internal Revenue Law).

- A. To locate, record, conserve, and research the caves, of the state of Missouri
- B. To provide a permanent, non-profit non-sectarian, cooperative organization for the pursuit of speleology.
- C. To disseminate knowledge of caves of Missouri through publications, conducting public forums, lectures and other similar programs.
- D. To establish and nurture a professional atmosphere among Missouri's speleologists.
- E. To cooperate with all individuals and organizations consistent with the forgoing purpose.

Simply put, we are a service organization. Citizen scientists before the concept came en vogue. Our goals are to educate and to promote science. We research and document the caves of the state of Missouri. We promote the cooperative pursuit of speleology and share that knowledge through publications and presence. We nurture a professional atmosphere amongst those also engaged in the pursuit and cooperate with all individuals and organizations consistent with these goals. We locate and research the caves of the state of Missouri in order to understand them and to conserve them. Sharing our knowledge is essential to our mission of conserving caves and is key to inspiring cooperators who are actively engaged in furthering the pursuit of speleology in Missouri.

In some regards we excel at fulfilling these goals and in others we're still working towards continuous improvement. Moving forward, that is our charge. To continue nurturing what has worked well, in addition to making progress with the changing times. Per the last meeting, I appreciate the vote of confidence by the MSS board to continue on as MSS president. It's a role I'm willing to continue serving at because the MSS is an organization whose purpose I so greatly value. Additionally, thanks are in order to both Krista Bartel, who is now the MSS vice president, and to Scott House who will chair the newly formed Cave Files Committee with Mick Sutton, Ken Grush, Spike Crews and myself serving as committee members. These are the same people who have performed this function as a de facto group for some time. Now that it's formalized, the committee can have an informed focus on how to organize, use and distribute MSS data to best fulfill our organization's goals.

At the last meeting, we set a date for our winter MSS meeting to be on Saturday, January 23, 2021 with a tentative location of the Missouri Geological Survey in Rolla. We've since confirmed that holding the meeting at the MGS in Rolla is not an option for us. This leaves us having to either search for another venue, hold a virtual meeting or cancel the meeting until spring. Given the pandemic, we don't know what to expect in coming months. It seems to be a more reliable option for us to plan to have an online board meeting via Zoom or Google Meets. Current CDC guidelines don't support us gathering in a large group indoors and I don't want to plan for an in-person meeting and fail to have a quorum. Cancelling the meeting all together would be an option. We didn't miss having the spring meeting, and we probably wouldn't miss it if we cancelled in January. But if cancelling the meeting is something we can so easily do, then perhaps it's good reason to reevaluate what MSS meetings are.

I think it's time we ask whether MSS board meetings are really important enough to hold three in-person events per year. My contention is that they're not and that we should use this time to reconsider what they could be. Many of our most active cooperators seldom come to MSS meetings because meetings aren't a requirement to actively support our mission. The organization's goals don't require board meetings in order to be fulfilled. The real work of the MSS is done by those actively working to collect, improve upon, manage and build off of our data. With or without three, in-person board meetings per year, that will happen and as always, the work will continue to be done by those who volunteer to do it. As it stands, it's very infrequent that we have full representation of all affiliate organizations at our meetings. Some organizations rarely come. Understandably, we did not have a large attendance at our last meeting. But this brought us close to a failure of having a quorum, meaning those who drove, some nearly across the state, would have come for no reason,

if they only came for the meeting. Maybe we could make MSS meetings more meaningful and relevant if we went down to one meeting per year, with a focus on showcasing work done by our cooperators with presentations and sessions. After looking at what some other organizations do, such a shift could work well for us and if ever there were a time to try doing things differently, now is it. I will be contacting board members to evaluate our options and to determine if we want to keep the date originally proposed or change it.

Missouri Speleological Survey Files Report for November, 2020. 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. 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. **Matt Beeson sent:** -New location and photos for Ramsey’s Hole in Stone Co. and Blankenship Cave in Barry Co. and for Joint Pit in Taney Co.; A new map of Natural Bridge Cave (CL=162) in Barry Co.; -(Via Scott House) Revisions to the Currey Cave map in Barry County: map turned to make north at top of page and added limestone lithology to cross sections and profiles). -New maps of Waffle (CL=25), Notonicks (“Not-Onyx;” CL=26), Beady (CL=28) and Rock Hole Caves in Barry Co. -Later, new map of Joint Cave (CL=35, CD=36). -A Main Table export that updated directions and descriptions in the database for Natural Bridge Cave in Barry Co. He also sent 5 faunal records for the Bridge. -Completed map of Little Stream Cave in Barry Co. -New Main Table imports for 5 caves in SWMO, Grand Fortune Shelter, Rock Hole Cave, Beady Cave (all these Barry Co.), Ramsey Hole (Stone Co.) and Joint Cave (Taney Co.). Along with the Main Table entries, Beeson also sent 5 faunal records. What’s nice for me, he sent the exports via Filemaker export format...makes them easy to import! **Mark Brooks sent:** -Two reports on recent survey (one was Hammer Drop Passage; the other Formation Passage) in Berome Moore Cave in Perry Co. Along with the report came 11 photos of the passage and 8 faunal records. **Matt Bumgardner sent:** -A new Photosynth of the Bennett Tunnel in Bennett Spring State Park. If you haven’t seen one, check out Bumgardner on Facebook or the Missouri Cave, Mines, Rock Formations website. A Photosynth is a merging of lots of 2-dimensional photographs with a standard digital camera (iPhone??) into a 3-dimensional video. Perhaps not a lot different than a standard video...without the “shakes.” This generation is also much improved over previous ones that Matt has done. -3D image of one of the cat tracks from Berome Moore. The technology just keeps getting better. **Jim Cooley sent:** -Plans for gating a cave in Camden Co. to protect wildlife habitat. -3 entrance photos for caves in Ripley and Oregon Co. Directions and survey notes to Ravine Cave in Oregon Co.—Ken Grush

Springfield Plateau Grotto (SPG). Sept. 7th—Treavor Bussard and Jon Beard were invited to show prospective buyers Brown Cave (Douglas Co). Accompanying them were the current cave owners. Most of the main passage was seen. Jon photographed some of the speleothems, one of three solitary gray bats seen and the entrance. Brown is just under 3,300 feet in length. **Sept. 13th**—Jon Beard helped with the continuing work at Goodwin Pit Cave (Laclede Co) where the diggers widened and enlarged the cave passage and others cut grass, downed a dead tree that was a future threat. **Sept. 21st**—Jon and Alicia Beard took the guided tour through Cave of the Winds while on a brief vacation in Colorado. This well-known show cave near Colorado Springs is somewhat famous as the cave in which “Silent Splendor” is located. Discovered by cavers several years ago, SS has spectacular speleothems. That passage remains sealed from the rest of the cave to preserve its natural state. **Sept. 26th-27th**—During the MCKC/MSS/CRF weekend at Berome Moore Cave (Perry Co), Jon Beard was accompanied by Matt Bumgardner in the rejoining of a few pieces of broken stalagmites in the entrance passage. Matt photographed the passage and some of its features while Jon worked on the stalagmites. While this was going on, three teams of surveyors were mapping in the cave. --Report by Max White, Materials provided by Jonathan Beard. **Oct. 13-16th**—Jon Beard conducted restoration in Tumbling Creek Cave (Taney Co). A wooden platform was built by two employees of the Ozark Underground Laboratory and Jon approximately five feet above the floor to enable Jon to repair two stalactites, eight to ten feet above the floor, directly above tall stalagmites. The tites were broken by vandals prior to Tom Aley acquiring the cave in 1966. Plans were also discussed to repair a three-piece stalagmite on a later visit. Jon also utilized the newly acquired SPG battery-powered pressure sprayer to clean a wall and ceiling that had been splattered with clay

during the building of the trail system in the cave. The sprayer battery lasted all day, using about 20 gallons of cave stream water to get the task completed. While there, Jon also recorded cave fauna he saw in the parts of the cave he visited. **Oct. 21st**--Dave Ashley, Dave Woods (Ozark Underground Laboratory Scientist), and several MDC field biologists visited Tumbling Creek Cave (Taney CO) to conduct a biological inventory for the Tumbling Creek Cave snail. **Oct. 24th**—Max White, Cheryl Paulson, Matt Bumgardner and Jon Beard visited the main entrance passage of Garrison Cave #2 (Christian Co) to refill illegal artifact digs, restoration done at least once a year for the past 20+ years. Cheryl finished the process by taking a fallen tree branch to remove evidence of the rake and shovels used to fill the holes. While there, Max reiled the lock to the cave gate. Matt retrieved a section of hose used in the siphon system for the cave that had been damaged by flood. The group also searched for biota, finding a cave salamander, cave flies, mosquitos and crickets. --Report by Max White, Materials provided by David Ashley and Jonathan Beard.

Lake Ozarks Grotto (LOG). Sept. 13th – Goodwin workday – Klaus Leidenfrost, Jean Knoll, Gary & Alberta Zumwalt worked on cutting down a large dead ash tree that threatened to fall into the sinkhole. We cut it up and stacked the wood and brush to be burned. Ken Long used the weedeater to take down the tall weeds in the area. Those working in the cave were Daniel Ripp, Nicholas Littell, Ethan Hey, Elizabeth Sutherland, Garrett Bell, and Louis Criscione (all MSM students from Rolla), Paige (Jean Knoll’s granddaughter) and Jon Beard (SPG). Ken got stung by a bee and had to leave since he didn’t have his EpiPen. We were concerned about him driving himself home but promised he would be careful as his arm was starting to swell. **Oct. 10th** - Goodwin Work Weekend. LOG chairman, Ken Long, reported: More work was done at Goodwin Cave and Sinkhole on this October weekend. MST students from Rolla, Mo helped with continuing to enlarge the cave opening. As of now we are 15-20 feet back in the sump area. We have been blessed with great weather the

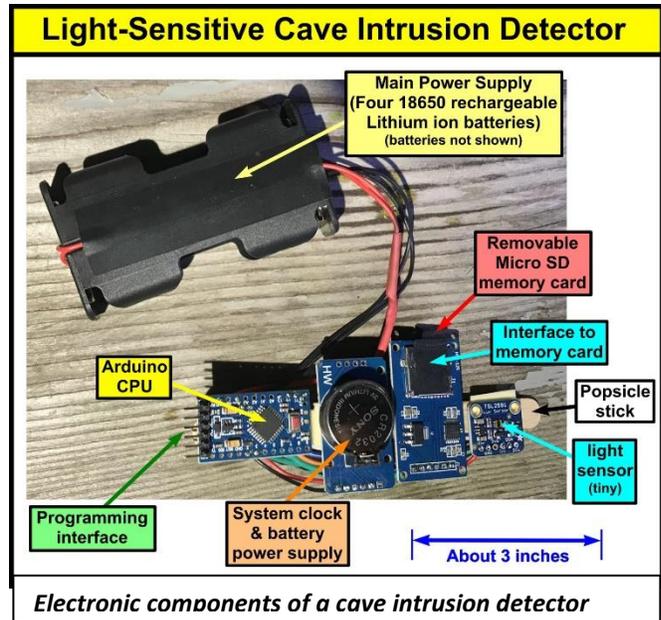


last few weekends so a lot has been accomplished. A lot of work was also done on the surface. Klaus Leidenfrost mowed the grass around the pavilion. Ken Long had his brush blade on his weed eater and went around cutting small stubs and trees. As of now the sinkhole has been mowed all the way around it. Brush was gathered up and burned. Jean Knoll was there helping with various things. She provided a wonderful lunch for everyone. **Oct. 16th** – Gary & Alberta Zumwalt worked all day on an area farm near Goodwin, pulling out trash from the piles of dirt taken out of the cave and sinkhole. A mini excavator and a track hoe were working for two days at Goodwin, taking out 13 loads of dirt from the cave and 37 loads from within the sinkhole.

Klaus Leidenfrost and Jean Knoll worked at the sinkhole trying to pull out the larger trash before it was hauled by two dump trucks to where the Zumwalts were working. Still finding massive amounts of trash – glass, plastic, metal and even more tires.....—Alberta Zumwalt

Kansas City Area Grotto (KCAG). Sept. 6th – Jim Cooley and Julie Cottrell led a cave survey and biological monitoring trip into 3,100-ft.-long Lewis Cave (RIP-001), a privately owned cave in Ripley County. Lewis Cave is managed for the landowner, with permit access available to the organized caving community, by the Missouri

Caves and Karst Conservancy (MCKC). To apply for a permit to visit this cave, simply e-mail lewismgr@mocavesandkarst.org. Participating in this trip were Seth Colston, Kristen Godfrey, Ginny Friedrich, Tyler Skaggs, and Isaac Smith (MVG). That evening, Cooley, Colston, Godfrey, Friedrich and Smith monitored and did a biological inventory of Turtle Shell Pit (RIP-017), a nearby 30-ft-deep pit located on the Mark Twain National Forest (MTNF). **Sept. 8th** - Cooley and Cottrell began a survey of Ravine Cave (ORE-197), near the Eleven Point River, also an MTNF cave. **Sept. 9th** - Cooley and Cottrell floated the Eleven Point River from Whitten Access to Riverton, monitoring Boze Mill Cave (ORE-038), a gray bat colony, along the way. **Sept. 13th** - Cooley and Cottrell met with the landowner of a new-to-the-MSS cave near Osceola, Missouri, Shady Oaks Cave (SCL-067). Cooley explored this small grotto so he could write it up for the cave files. **Sept. 19th** - Jeff Page, Bill Gee, Matthew Michael Hernandez and several other KCAGers participated in a Carroll Cave surface work detail. **Sept. 20th** - Jim Cooley led a survey team consisting of Gee, Seth Colston, and Hernandez to Joe Cave (CAM-022), where half the upper passage was sketched, and all of the wet part of the lower passage was surveyed and sketched. The lower survey was stopped when the team ran into about 1,000 gray bats. **Sept. 21st** - Cooley led a federal wildlife biologist on a guided tour to a gray bat cave in southern Missouri, probably a transient colony. Unfortunately, the bats were still present, so Cooley spent the next two days surveying in this cave AFTER all the *vespertilionidae* had flown out for their evening meal and vespers. (Who knew you could survey a cave *after dark*?!?!? ;) Cooley also placed a prototype intrusion detector developed by Bill Gee and himself to try to determine how much unauthorized visitation the cave was receiving. This represents a beta test of the unit, and will last about six months. **Sept. 26th - 27th** - Cooley and Cottrell used Cooley's jon boat to survey Nemo Cave #1 (HKY-055) on Lake Pomme de Terre, netting 145 feet of survey, including 79 feet of hands-and-knees crawl that proved to be the home of dozens and dozens of pickerel frogs. **Oct. 10th** - Kirsten Colston led a four-person novice caver trip to Perkins Cave (CAM-027). This cave is also managed for the landowner by MCKC, with access to the organized caving community available by permit. (To apply for a permit to visit this cave, simply e-mail perkinsmgr@mocavesandkarst.org). Rick Hines organized the 2020 annual landowners' trips into Carroll for October. Four of the five trips took place Oct. 10th and 11th. The fifth trip went in the following on Oct 17th. All five trips went well, including the Sunday morning trip, even though it concluded with our winning an exhausted caver up the shaft. These trips hopefully furthered the CCC's goal to expand awareness within the community of the amazing cave system below their land, that we believe needs to be protected and conserved. The trips visited Angel Pool passage, Thunder Falls, and Carroll passage. We made some new contacts with the locals as we worked to maintain our good landowner relations. Larry Cleveland, President of Ozark Fisheries, enjoyed his first trip into Carroll Cave. We were also pleased that KCAG's long-time landowner friend, Nathan Burton, owner of Old Spanish Cave in Stone County, and his two sons Zach and Jacob, were able to join us this year. Special thanks go to surface safety manager Jay Kennedy, and to trip leaders Nathan Taylor, Seth Colston, and Martin Carmichael (president of Chouteau Grotto). **Oct. 11th - 16th** - Jim Cooley hosted Jason White, an avid caver from Southern California Grotto who had contacted KCAG through the NSS website and asked if we could



Electronic components of a cave intrusion detector



The gang's all here (dozens of them) in Nemo Cave #1

trip to Perkins Cave (CAM-027). This cave is also managed for the landowner by MCKC, with access to the organized caving community available by permit. (To apply for a permit to visit this cave, simply e-mail perkinsmgr@mocavesandkarst.org). Rick Hines organized the 2020 annual landowners' trips into Carroll for October. Four of the five trips took place Oct. 10th and 11th. The fifth trip went in the following on Oct 17th. All five trips went well, including the Sunday morning trip, even though it concluded with our winning an exhausted caver up the shaft. These trips hopefully furthered the CCC's goal to expand awareness within the community of the amazing cave system below their land, that we believe needs to be protected and conserved. The trips visited Angel Pool passage, Thunder Falls, and Carroll passage. We made some new contacts with the locals as we worked to maintain our good landowner relations. Larry Cleveland, President of Ozark Fisheries, enjoyed his first trip into Carroll Cave. We were also pleased that KCAG's long-time landowner friend, Nathan Burton, owner of Old

Spanish Cave in Stone County, and his two sons Zach and Jacob, were able to join us this year. Special thanks go to surface safety manager Jay Kennedy, and to trip leaders Nathan Taylor, Seth Colston, and Martin Carmichael (president of Chouteau Grotto). **Oct. 11th - 16th** - Jim Cooley hosted Jason White, an avid caver from Southern California Grotto who had contacted KCAG through the NSS website and asked if we could

“take him on a cave trip.” We did – and *SURPRISE*, it lasted six days! On Sunday, Rick Hines invited Jason to participate in one of the landowner trips to Carroll Cave which featured, among the usual speleothems on the



Ain't in Los Angeles anymore, Toto!

landowner tour, a cave rescue, when we winched one of the participants up the shaft. But probably the high point for Jason was when he got woken up at 2 a.m. Sunday morning by a longhorn cow that decided it wanted to come into his tent and bunk with him. (All part of the fun. Apparently, they do not have longhorns in Los Angeles?) From there, Cooley and Bill Gee took Jason down to a large, on-going private lands survey project, *where there were no more cows*, and introduced Jason to cave survey in the back of a couple of long caves, taking a bat census by both direct count and moldy guano measurement in another 2,000-foot gray bat

colony, map quality control checking, some (unsuccessful) ridgewalking looking for a known but missing-in-action pit cave, some rappelling into yet another pit cave, and just some good old-fashioned recreational caving. **Oct. 24th** - Bill Gee led his annual Mountain Room bat survey trip in Carroll Cave, with a team consisting of Seth Colston, Kristen Godfrey, and Isaac Smith (MVG), as well as Missouri Department of Conservation (MDC) bat biologist Jeanette Bailey and U.S. Fish and Wildlife Service's (USFWS) national gray bat restoration coordinator (bat biologist), Vona Kuczynska. They entered the cave at 10:20 a.m. and were out at 8:20 p.m. The team encountered several small clusters of bats, which Kuczynska and Bailey documented. They were mostly gray bats, but they do think they saw some little brown bats as well. They counted MANY banded sculpins in the stream, probably 60 or 70 of them, along with some bluegill that were washed way back into the cave. The bluegill were still alive, but probably not for long. The team did an isopod count at the usual location, and downloaded the stream-level data loggers that they passed. USFWS was kind enough to loan the Carroll Cave Conservancy a bat roost detector for a year, which is now in place and recording in the Mountain Room. Another trip may be required in March to change its batteries.-- Jim Cooley

MSS MINUTES. The Fall 2020 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on September 27th, at the Berome Moore Pavilion in Perryville, MO. **Introduction of Officers:** Dan Lamping, President; Scott House, Vice-President; Don Dunham, Treasurer; Alberta Zumwalt, Secretary. **Roll Call of Directors:** Rita Worden, Chouteau; Krista Bartel (proxy for Bob Lerch), CCC; Gary Zumwalt, LOG; Al Quamen, LEG; Jessica Self, MSM; Doug Leer, MMV; Chad McCain (proxy for Alicia Wallace), MCKC; Alex Litsch, MVG; Max White, SPG; Ken Grush (proxy for Jim Cooley), KCAG. Absent were: CAIRN, Daedalus, OHG, PEG, RBX and SEMO. **Secretary's report.** Pres. Lamping said that the minutes of the winter meeting were approved by email since there was no spring meeting. **MSS Liaison.** Gary Zumwalt reported cash on hand of \$114.53; Sending out 35 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 25, 2020 – ACCOUNTS:** General fund \$10,362.93; Subscriptions/Donations *Missouri Speleology* \$8022.27; Research Fund \$9,284.78; Anne Johnson Data Fund \$18,154.77. Affiliation fees \$827.00; Subscriptions *Liaison* \$441.00; Total \$47,983.11. **ASSETS:** Savings bonds \$2,000.00; Interest checking \$9,092.75; Certificates of deposit \$36,000.00; Total \$47,092.75. Don reported the passing of the MoSpeleo circulation manager Bill Pfantz in May, left Don with the job. Don said Joe Light's History of Cliff Cave (Vol. 62) is printed. Scott House is working on 3 volumes: North Fork Basin, a Forest Service District volume and Ozark Scenic Riverways. Don reported selling approx. \$2000 of MoSpeleo off the website. **Old Business – none. New Business – Ad hoc Cave Files Committee** - Pres. Lamping said the cave files have been maintained by Scott House and Ken Grush. A committee was formed to clarify protocols for data, etc. with Scott House, Chairman; Ken Grush, Mick Sutton, Jeffrey (Spike) Crews and Dan Lamping. Pres. Lamping said the committee will make recommendations to the Board. **Appointment of Secretary** – Pres. Lamping re-appointed Alberta Zumwalt for another three years with

the approval of the board. **Election of President and Vice President** – Pres. Lamping said he would be willing to serve another term, Scott House stepped down and Krista Bartel said she would be willing to be Vice President. **Other new business** – Pres. Lamping said an item not on the agenda was asked to be included by Doug Leer, MMV. In the President's column that was printed in the last MSS Liaison was a screen shot of the overlay of Berome Moore Cave. An MOU signed between MCKC, MSS, MMV, CRF, the Berome Board would prohibit this. Pres. Lamping was given a formal letter of the history of the agreement. He said it was a mistake and apologized. Jim Sherrell said that since it was against the rules, it needed to be brought up. **Cave Files.** Ken Grush said a more detailed report is printed in *MSS Liaison*. He reported almost 7800 records with 200-300 leads, mines, etc. There are 37,000 fauna records with over 3000 monitoring records. More archives and documents, map archives – cave archives have grown 70% this year. He likes photos for the archives. Scott House added that he has been cleaning out garbage and bad data in the files. There are locations for caves that are not known if they exist. He spent 40 hours viewing Perry Co. On the database, Ken has master now but it is floated between Scott and Ken, sometimes Mick Sutton. It is saved in several locations and they use Dropbox to transfer. **Agency reports. Mark Twain National Forest** – Scott House reported that the agencies in Arkansas are still shut down but work is going on in Missouri. **Ozark Scenic Riverways** – Scott House said there were more monitoring trips this year than any other year. Cave gates have been checked and serviced. **MDC** – Pres. Lamping reported they are making revisions to make process easier for annual permits. **State Parks** – Ken Grush said permits are required but there is some local control. **City of Perryville** – Scott House reported that they are still working on the signs to get 6 or so done before ordering. Graphics can be made up as posters and put in classrooms. Someone got into Crevice Cave so the city is changing locks. Need 10-12 people to go into the cave to fix the vandalism. Chad McCain said someone in the city has access. Spray paint reported. Scott also said that a new map of Streiler Cave is needed. **Affiliate Organizations Project Reports.** **CCC** – Pres. Lamping said there are copies of all Carroll Cave maps, approx. 11 sheets. They are looking at surface development – Rita Worden is working on maybe a concrete pad, etc. like Berome. **Berome Moore** – Chad McCain reported 3,498.2 ft. of survey done the day before (26th), making it approx. 22.6 miles. **Others** – Pres. Lamping announced that Stygian Grotto wants to get on the MSS Board and are working on the requirements. Next meeting will be a vote to put on Board. **Public Outreach** – Pres. Lamping said things can be put on Facebook. On the website – he puts MSS Liaison. Don Dunham said the website is a valuable communication tool for former cavers. Announcements: Pres. Lamping expressed thanks for allowing the MSS meeting to be held at Berome Moore pavilion. Next meeting: Discussion on the possibility of having the winter meeting in Rolla as usual. Decision to set a date and see what happens. Meeting set for January 23rd, 1 pm in Rolla. Meeting adjourned. –Respectfully submitted, Alberta Zumwalt, Secretary

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