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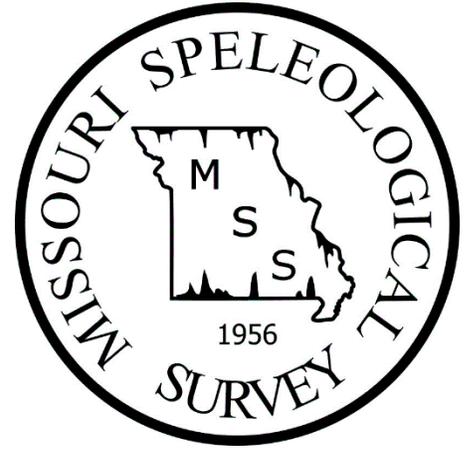
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President's Message February 2018 by Dan Lamping. The last meeting of the MSS was held in on January 20 at the Missouri Geological Survey in Rolla. There were some fine maps displayed by Jon Beard, Chad McCain, Eric Hertzler and others. Scott House kept busy in the back all morning helping younger cavers plan future trips to Mark Twain National Forest (MTNF) caves and doing database work. A highlight was getting to peruse through Paul Johnson's cave map collection which included some which, we did not previously have in our files. Also, the latest issue of *Missouri Speleology* was available; this being the second part of the *Caves of the North*



Chad McCain's fine draft of Berome Moore Cave and the latest issue of *Missouri Speleology*.

Fork Basin, which includes a CD containing Mick Sutton's masterful map of Still Spring Cave. During the meeting two new members of the MSS Research Council were approved including Dr. Robert Lerch, a USDA soil scientist, President of the Carroll Cave Conservancy and project coordinator for the Carroll Cave survey. Also appointed was Dr. Michael (Mick) Sutton, a well renowned cave biologist with the Cave Research Foundation and a titan of Missouri speleology in general, specifically cave cartography. Before the Board approved their appointments, we announced that the Research Council had approved MSS contributions to a dye tracing project a few months ago to determine the recharge area for Roaring River Spring in Southwest Missouri. This is a large spring which has never been fully dye traced. The MSS is partnering with CRF and MTNF on this project, which is being led by Ben Miller who does hydro geology work for the USGS, along with Bob Lerch of USDA.

The next two meetings of the MSS should be great events. The spring meeting will be held in Perryville at Berome Moore Cave. It will be held Sunday, May 6, appropriately giving the weekend the theme of "Sinkhole de Mayo." Expect survey in Berome and perhaps City of Perryville on Saturday and a taco fiesta Saturday night.

The fall meeting will be the weekend of Sept. 7-9 at Current River State Park, which is the old Alton Club, used as a company retreat by the Alton Box Board Co. and developed in the 1930s and 1940s. The site contains a lodge, dorm rooms, gymnasium and other structures, which we are making plans to utilize. Indoor sleeping will be limited but we will be able to set up camp adjacent to the Current River on site and use the river access to put in and take out canoes for monitoring. Part of our agreement is to do some restoration work at some of the caves at Echo Bluff State Park and set up an interpretive station



Alton Club at Current River State Park. Photo: Wikipedia

on the gravel bar at Echo Bluff to describe the restoration. There will also be some survey opportunities to map a few small nearby caves that I first located nearly 15 years ago and never made it back to map. Lastly we will probably be setting up a display at the gymnasium for the public to view including gear, maps, etc. This should be a great event for cavers, but the focus will be on an educational opportunity for the public. More information will be coming out as plans are finalized.

Lastly, the February meeting of the Meramec Valley Grotto was a spectacular map display set up on the gymnasium floor of Mehlville High School in St. Louis. The quality of work displayed was a testament to the dedication and skill level of Missouri cave cartographers. Maps included a wide range of Missouri selections from numerous cartographers, some being modern, recently completed maps as well as older, classic maps.



A caver examines Paul Hauck's Crevice Cave map in the foreground with numerous fine maps displayed in the background.

Cavers from across the state made the journey, despite the poor weather to display their maps and see the fine work of others.

In addition to the many Missouri cave maps displayed there was a fine showing of exotica with maps from places such as Laos, Malaysia, and Quintana Roo made by cartographers out of Missouri, as well as from places closer such as Carlsbad, New Mexico, Lava Beds in

California, Mammoth Cave in Kentucky and neighboring states such as Illinois and Arkansas. While there were many impressive maps displayed, including the fine work of contemporary Missouri cartographers such as Jon Beard, Mick Sutton, Scott House, Bob Osburn, Chad McCain, Aaron Addison, Joe Sikorski, Alex Litsch, Kayla Saplokota (AR) and myself, the most impressive was the complete map of Missouri's Crevice Cave by Paul Hauck, printed at 50 ft to the inch.

As an interesting comparison, Mick Sutton's Salts Quad and Blue Springs Quad from Mammoth Cave, also printed at 50 ft to the inch were displayed right next to it for a fine demonstration of cave passage density. Many thanks to Aaron Addison and Bob Osburn of Washington University for their continued support of Missouri cave cartographic display. Also, thank you to everyone who displayed maps, helped set up and take down as well as those who made the long treks to participate. I'd say we did the Missouri caving community proud.



Henry Lamping explores the Crevice Cave map with a robot spider.



Multi quad map of Carroll Cave with Carroll Cave surveyors, most notably Dave Hoffman, a pioneer of Carroll Cave. Cartographic work by Bob Lerch, Ben Miller, Josh Brewer, Tony Schmitt, Jeff Crews and Dan Lamping. Drone photo by Josh Hafner



Joe Sikorski and a volunteer high school student from Mehlville High School help set up the Crevice map, while Jon Beard begins to lay out some fine maps from Southwest Missouri.



Mick Sutton dissatisfied and disproving the claim that he read the compass three degrees off.

REMEMBERING EARL C. BIFFLE BY PAM SABERTON. April 1929- September 2017. NSS #3953RL



On September 20th, 2017, Earl “Biff” C. Biffle , a most interesting contributor to the Missouri Caving community tied on his favorite dancing shoes and joined the other notable Missouri Cavers who have left lasting contributions to our understanding of the world of Speleology.

Earl was born to Earl C. and Jesse (Miles) Biffle on April 19, 1929, in Poplar Bluff, Missouri, and passed away at Autumn Oaks Caring Center in Mountain Grove, Missouri. Earl also served his country as a member of the Air Force enlisting August 10, 1946. He has one daughter, Alicia Blythe.

“Hello, Surveys and Plans, Earl Biffle speaking.” This was the voice of Biff, a caving friend as I (Father Paul Wightman) checked up about a cave trip. “Biff” worked for the Missouri Highway Department during the 60’s.

Father Paul first met Earl at an MMV Grotto meeting in St. Louis, MO in the late 1950s. Earl took an interest in a cave-radio that I was trying to build. Since he had a knowledge of electronics he was of great help and always came up with new ideas.

In 1963 Earl arranged for a trip to Jewel Cave in the Black Hills of South Dakota to use the cave radio in locating the site of an elevator shaft as the cave was being developed for visitors. Earl, Herb & Jan Conn carried the transmitter 5 hours into the cave to a targeted location. I (Father Paul) waited for the transmission above ground. They emerged 5 hours later after a very successful operation.

Then there was the bat inventory trip to the Current River. A landowner contacted Biff to confirm the existence of a colony of bats in that area. It was – 10 degrees that day - quite unusual for the Ozarks. He rigged the 40 foot pit and we descended. There were bats – lots of bats. The ceiling was paved with them. Biff estimated the number of bats and, his guess was 10,000. By this time some of the bats were getting restless. I agreed, yes, 10,000 – Let’s get out of here! Biff picked one of the bats from the ceiling, that was banded on its leg with an identifying number. Biff made note of the number and we began our trip out of the cave. He sent this information to a bat expert in Kansas City. The bat biologist replied and said that we were wrong. We had miscounted - There were at least 50,000! The biologist had just visited that pit a couple of days earlier. Details –details!

Earl was a great ambassador with landowners and governmental agencies, working diligently on behalf of cave conservation and preservation. He had a special love for caves in the Ozarks and especially Arkansas. Other notable accomplishments that Earl is best known for are: Founder of the Spelean Research Foundation; Created the "International Bat Sticker" that many of today's cavers proudly display on their vehicles and other cave related equipment; Hosted the 1967 MVOR at Fantastic Caverns in Springfield MO; Was a member of MMV and MVG. Founding member of MMV in 1957; Was the first President of the Mississippi Valley Ozark Regional and served in the capacity of Treasurer for many years; Recipient of the Lester B. Dill award for notable Spelean contributions; Received the Jane Fisher Ambassador award from MVG.



Biff and Father Paul made several trips to the Black Hills and the Grand Tetons National Park in his Volkswagon camper. He was a good canoeist and an all-around outdoorsman. He was an accomplished douser, water witching. Many times he traced cave passages above ground with accuracy – all this with a pair of bent coat hangers. Earl had a multitude of interests, including collecting early American colonial coins and early French Francs. Earl was dedicated to going to "Rendezvous" where he would often dress as a catholic priest. He was also a member of several "dance" groups in the greater St. Louis area.

Out of the Scrapbook



Earl is on the left of the picture along with Tex Yocum, Steve Sabo, Don Stokes and Lang Brod in Green's Cave along the Meramec River.

I think that Earl would appreciate the following verse:

Advice from a Star

Set a shining example
 Make a wish
 Keep looking up
 Have a stellar attitude
 Keep a twinkle in your eye
 Stay full of wonder
 Be out of this world!

(Poem used with permission from Your True Nature, Inc.

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Author: ilan Shamir

Earl Biffle, Tex Yocum, Steve Sabo, Don Stokes & Lang Brod in Green's Cave on the Meramec River.
 NSS 3953 NSS 4356 NSS 5329
 Missouri Conservationist, July 1961, Vol. 22 No. 7, Article:
 "The Conservationist Goes Caving" by Jim Keefer.

Missouri Speleological Survey Files Report for March 2018. This report includes the last few days of 2017 and the start of the New Year; CRF kicked off the New Year with the "annual" MLK weekend, held historically at Powder Mill Research Center, PMRC, but this year at a facility sponsored jointly by the Ozark National Scenic Riverways (ONSR) and now also by the Mark Twain National Forest (MTNF); Point being lots of work on both properties were conducted by many (20 or more) volunteer cooperators: 40 monitoring reports and 120 fauna records were collected in a short span around that weekend; Then for most of a month, a map a day (on average) was coming into the archives; We're off to another great start of the year; Remember if you have new information on any Missouri caves, my email address is: slagrush@gmail.com . And my apologies if mention of your submission isn't here; been busy. **Bruce Archambault (Allie Spring and Mill Creek Cave landowner) sent:** A nice article written for publication in the local Camdenton and Waynesville newspapers on his initial trip into Carroll Cave in Camden County with references to his MCKC-managed caves, Allie Spring and Mill Creek Caves, in Pulaski County. **Jonathan Beard sent:** New maps for Hidden Dome Cave, Uphill Crawl Cave and Piney Cave, all of which includes the last cave map sent in 2017 and the first two cave maps sent in 2018; 60 or so Main Table adjustments like cave survey lengths, geologic formations and descriptions for Missouri Cave Database (MCD); 272 faunal records for cave work done throughout the state by SWMO cavers; A new map on Stove Door Cave in

Christian Cave; A bunch of his archival data that contained a number of valuable main table entries including: Galena Hollow Cave, a new cave for Barry County; main table records for 34 caves, which include changes to geology, descriptions, directions, photos, you name it, Beard updated. All good additions and corrections; Information on 2 new caves in Christian County, Spring Box Cox and Cross Joint Cave including the map of Spring Box Cave; Another bevy of 47 Main Table corrections/additions including 2 new caves in Webster County, Peck Hollow Cave and Johnnie Long Cave (sadly not a long cave, 21 ft. CL). Although short, it is an interesting cave, as Jonathan explains: "The cave is located in a sandstone interbed ("Swan Creek member") of the Cotter Dolomite Formation...The cave is solutional in origin, suggesting the sandstone matrix is soluble dolomite." For the curious, the Main Table is a group of over 40 potential entries (some with multiple values) that help describe the cave and its many features. A change can consist of one change (the needle in the short stack) or 40 entries for a new cave. The minimal entry is the name and GPS location, although that presumes the minimum 20 ft. cave length is also observed. A GPS location is preferred (good directions and general location might work, although it often doesn't) since it can generate other entries, like county, topographic quad, Public Land System Survey (the old PLSS quarter locations), section, township, range, MDC region, ownership and even geology. Jonathan has been very diligent in filling in all the "blank entries" for the many caves that he has visited; An email with a solution to the cluster of caves that were impacted by road construction just west of Branson in Taney County. There were 6 caves in the MCD, two got destroyed and have no obvious remainder (old records are source for destruction), two turned out to be duplicates, so one of these and two others were monitored. Well...except Jonathan had a lead in his back pocket, so there are now, still 6 caves just west of Branson: Keyhole (new), Ruark Valley (or Roark, road namesake), Unexpected Dome and Mossy Rock/Bear Caves plus the lost Cannonball and Candle Caves. Keyhole was also monitored, of course. **Michael Bradford sent:** 5 reports on new caves in Texas County including locations, detailed directions and descriptions of the cave. Scott House assisted with the first cave map from this group to provide a template for the next 4 cave maps from this group. Then Bradford sent in his first cave map, a fine first effort. The new caves are Duck, Chimney Falls, Goat Trail, Little Outlet and Little Canyon Cave; In quick succession, the other 3 Texas County caves were mapped: Chimney Falls Cave, and then Little Outlet and Little Canyon Caves on the same sheet. All very nice maps for his first effort. **Jim Cooley sent:** Extensive documentation on final cave maps for Cloud 9 Bat, Rocky Crawl, and Frank Caves, and Ship Rock Shelter in Ozark County. Documents include the Xara, Walls, field sketch and book, along with plates (on longer caves) of both the color and B&W; Photo collections for Davis, Saltpeter, Trap and Saltpeter Hollow Caves in Shannon County; An introduction to Laura Anthem Jaynes (KCAG), a new cartographer, via her first effort on Kings Onyx Cave in Camden County. Jim sent scans of the original survey and book, Walls files and Xara file as supporting documents. Jaynes has made a very nice map. Her mapping pointed out that the current Kings Onyx Map, in the file, with 2 entrances is not correctly labeled; the map apparently represents nearby Onyx Mine Cave which does have 2 entrances; 62 faunal records from the annual Cloud 9 bat census in Ozark County, assisted by Missouri Bat Census and Kirsten Alvey and many others. At least a dozen caves are represented by these records. Over 30 caves are known on the ATV park; After the Cloud 9 Census, new maps for three of the caves on this Ozark County property were sent, Dragon Dentures, Eye of the Needle and Amburgy Caves. Cooley regularly sends in all of his related documentation including color, B&W, field sketch/book, jpg and pdf versions along with his native Xara files for his map submissions. **Dillon Freiburger sent:** A GPS location on a poorly located Devils Hole in Barry County. He is also surveying the cave and will surely deliver soon another fine map to the database and archives. A photo also accompanied the email and will be used to display the entrance in the database; A map on new Sayornis Only Cave (Christian County), so new, I didn't have the accession number for it yet! Dillon regularly sends his Adobe Illustrator file and sketches along with his submission, all nice additions to the archives. (A little bird told me what Sayornis means, do you know?) **Bill Gee sent:** Stream flow data from Carroll Cave in Camden County. data now stored in archives. **Brenda Goodnight sent:** 8 fauna records from Cave Hollow Cave in Shannon County, via Scott House. **Paul Hauck sent:** A selection of entrance photos for Weinrich Beer Cave in Perry County; 33 map sheets or plates reflecting ongoing work in Crevice Cave, Missouri's longest cave. Later on he also sent an aerial photograph of the cave's layout over the county. **Eric Hertzler sent:** Final maps of Hall Spring Cave in Greene County and Cascade Crawl Cave in Christian County; Two corrected locations and photos for Hole-in-the-Hill Cave and Norman Branch Cave in Webster County; A new cave report on Medlock Hollow Cave with all the information to create a new main table entry for a cave. **Scott House sent:**

About 9 new faunal records from Shelly Colatskie on work in Cliff Cave in St. Louis County; A report from Shelly Colatskie on a fauna survey in a state park cave; New cave maps on Spout Spring and Pine Ridge Shelters in Carter County, along with Beckoning Waters and Greer Trail Caves in Oregon County. Adobe Illustrator files were submitted for the archives too; A collection of 4 maps on new caves in Phelps County: Tiny, Ice Bluff, Busch and Penny Slicker Caves; A new survey of a 1976 map, one that he participated in the original survey. Having been there, I can report that the new map of Swiss Cheese Cave (Shannon County) corrects a minor inaccuracy, adds a wrap-around exterior view of the cave's 9 entrances, and provides 3 more cross-sections and one extended profile through this holey cave. Cave was originally named Swiss Cheeze in honor of the snack of the day (and today), Cheez-its! A collection of map data for Little Daveys Hollow Crawl and Little Daveys Annex Cave, two small caves in Shannon County. Then a redrawn map of Little Granite Quarry Cave in Carter County. Scott also readily shares his Adobe Illustrator files with the archives. **Dan Lamping sent:** Overlay, onto a topographic map, of a recently completed MDC cave map. The map represents the kind of cooperation between the caving community and MDC where cavers get an opportunity to see, monitor and survey a unique cave while MDC receives valuable information to manage their/our resources; A new map for Cadence Cave in Shannon County, surveyed during the busy CRF-MLK weekend in Winona; An updated map of Plundered Canyon Cave in Shannon County, previously going passage was noted on the map and now we know where it goes. An excellent profile, as a separate document, was also sent in; Updated version of his Cherokee Cave map with extended profiles through the cave and a nifty overlay of city streets and interstate that display the demise of the commercial operation of this cave. When Interstate-55 construction ran through the city it cut off the commercial entrance trail. Nice historical and geographic notes were also printed on the map. Dan's map include extended profiles along the passages which were previously not available. **Joe Light sent:** A photo report on Double Drop and Double Drop Spring Cave in St. Louis County; A volley of 3 photo documentation reports addressing Claybank Crevice, Bernard School Caves and a sinkhole lead, all in St. Louis County. Another report showed a sinkhole taking on a lot of water during a heavy rain. Further investigation will wait for drier times; A report on a high lead in Cliff Cave, St. Louis County, that was investigated, however unsuccessfully; no going passage; Report on the 83 sinkholes of Cliff Cave (St. Louis) County Park. GPS locations, photos and trash were documented in the park. **Alex Litsch sent:** New map to go with the 2017 new cave, Tornado Cave, in Ste. Genevieve County. Tornado seems an appropriate name for the whirlwind of activity by the many cooperators in Ste. Genevieve often led by Litsch or Chad McCain, with support of many others; Four new caves with photos, detailed location and description in Ste. Genevieve County, including Broken Cave, Jagged Pit, Slump Cave and Smooth Cave; A report with faunal records on an "old" record that had not been reported on since 1978, Fish Dam Cave in Pulaski County. Then he sent a new cave report for the same area and county, Bluff Spring Cave; 24 cave specific (too numerous to mention all) folders containing almost 695 photos from his work in Ste. Genevieve County; 2 more new caves in Ste. Genevieve, Fence Line Fissure Cave and Fissure Pit. At same time, some additions were made to recently submitted records in the database; A report on a cave and sinkhole clean out done in Ste. Genevieve County including Pentagon Pit. Trash was relayed up to the surface through the multiple drops in this pit; A map of Mausoleum Pit. Who or what is buried inside? Claw marks provide only one clue! **Chad McCain sent:** Revised locations for 3 caves in one of the conservation areas in Boone County. Please, be aware that we keep records on over 7300 caves; we don't necessarily have accurate (GPS) locations on all of them. Your favorite cave may only be known in a general area, not a specific location. If you have good GPS locations send them to the database. And Chad had a follow-up report from Bob Lerch in the same area that Coon and Mosquito Caves are two entrances to the same cave. Coon being the insurgence and Mosquito Cave being the resurgence. Sadly no map was ever completed as the original 1998 report suggested; A new cave that he saw on bluff while driving Pike County; the cave now named Clarksville Cave. Still not entered, due to rappel-access entrance, but looks promising; Survey notes from MSB089-091 trips in Berome Moore, Perry County; His summary of Berome Moore activity to be published in the 2016-2017 CRF Annual Report, which will be added to database reports; Reports on Big Rock Bluff Cave and nearby caves, Eagle Eye and Pendulum Cave. A copy of the survey sketch was also submitted on Big Rock Cave which has 4 entrances. Most of these caves were initially accessed while on rope, but some were accessed later by following narrow ledges to the caves; Update to the Gegg Cave map with Lidar imagery background, now in two panels. Ten caves/pits are shown in true/relative perspective on this same map; Updated 3 panels for the Blackfathom River Cave system. The complete map

comes in 8 panels and displays at least 15 (I lost count!) other caves as locations or with map inserts; A collection of Walls files, which are used to plot survey information, on Berome Moore Cave and Kohms Cave, in Perry and Ste. Genevieve Counties, respectively. He followed this up with Walls data on 2 caves in Shannon County, Big Rock Bluff and Mill Creek Cave. (Who knew there are 5 caves in MO called Mill Creek Cave; 2 more if you include modifiers like Mill Creek Bluff Cave?) He also sent his most recent sketches for his survey work in Berome Moore; A GPS location for Frog Pit/Pickerel Pit in Perry County; apparently this feature actually became a Missouri geyser when heavy rains fell in April, 2017. Who knew Missouri had geysers? You might have seen recent examples on Facebook too! A webpage link for a news story on the reminiscences of the “lost boys” of Perry County, a 1963 cave rescue in Berome Moore Cave. **Ben Miller sent:** 2 new maps of Converging Corridors and Woodrat Caves in Barry County; A new map of Pennington Cave in Taney County; 2 new maps of Grotto Shelter Cave in Barry County and Badger Pit in Taney County; Ben noted a 7 ft. climb-down is available for the vertically challenged but agile caver in Badger Pit! Ben has to be among the most prolific (recent) non-resident cartographers, but I can think of four other major cartographic contributors who live out-of-state. How many others from out-of-state assist in producing the final map (well the list is too long for all map contributors)? Kudos to all! **Kayla Sapkota sent:** Three new maps of Off Davis Shelter, Dry Falls Cave and Pancake Cave, all in Barry County. She included survey notes, sketches and the Adobe Illustrator files; Reports and data on 5 new caves including Rush Springs Caves #1-3 and Fox Church Cave in McDonald County and Kings River Cave in Barry County; Sent faunal record on Root Cellar Cave and 2 new maps from Barry County: Crescent Cave and Milk Jug Shelter. **Mick Sutton sent:** A more complete map of Hamilton Cave in Phelps County, the previous rendition was only preliminarily submitted; A report on fauna occurrence in Little Pittman Cave; A full write up of a “new” mine in rhyolite to monitor in the Bell Creek Wilderness, known as bat habitat; And at one time clustered (perhaps Myotine) bats were noted; Along with 3 faunal records in the mine, he sent 3 older faunal records for Little Pittman Cave in Laclede County. **Shawn Williams sent:** Trip report for “low” (watercrawl) adventures during recent survey in Allie Spring Cave, an MCKC managed cave, in Pulaski County; Trip report on his 6-day trip in Carroll Cave in Camden County from 2007.—Ken Grush

Southeast Missouri Grotto (SEMO). Dec. 4th – Chad McCain started surveying Mill Creek Cave in Shannon County. After 198.8’ of solo survey with the Distox, the cave got smaller, tighter and wetter. **Jan. 26th – 27th** – Chad McCain scoped out Big Rock Bluff Cave under direction of Scott House, as it is located high on a bluff. **On the 26th** A 15’x15’ entrance was found and named Eagle Eye Cave. This was located nearby at the same elevation, but immediately turned to crawling. A tall canyon cave with a crawlway at the top of the which is only accessible by a pendulum rappel, was also located and called Pendulum Cave. Both of these caves were next to a 25’w x 2’h entrance to Big Rock Bluff Cave, which was not visible from the river, but located on the same ledge. Returning on the **27th**, survey commenced on Big Rock and 492’ of solo Distox survey was obtained. Big Rock has four entrances, but two of them share the same drip line and are separated by a column. The cave is approximately 150’ above the Jacks Fork River. Two leads continue as crawling on both ends of the cave and an antique bottle was found in the back in one of the leads. **Jan. 27th** – Alex Litsch, Michael Bradford and Jeremy Weih checked out several caves in Ste. Genevieve County before checking out a lead in Kohm’s Cave. Alex noted that no water was flowing in the downstream section of the cave. **Jan. 28th** – Michael Bradford and Jeremy Weih returned to Gegg Cave to check out the downstream sumps due to the ongoing drought. They were still impassable, so they went to the Esoteric Entrance and climbed up into the Calkiller Crossover and dug out and surveyed a few leads. 103.7’ of hard fought survey was obtained. On the same day, Alex Litsch had Craig Williams and CAIRN at Tornado Cave and Mausoleum Pit, checking for signs of prehistoric activity. **Jan. 30th** – Chad McCain returned to Kohm’s Cave and pushed upstream to find the passage dry. Water was being swallowed by a deep pool in the floor. There were 20 bats in the entrance area, 15 little browns and 5 pipistrelle bats. **WNS** was found on one of the little browns. **Feb. 3rd** – Alex Litsch organized a cave cleanup at Pentagon Pit in Ste. Genevieve County. This was conducted in conjunction with Jason Crites of the MDC as well as the local Stream Teams. Approximately 15 cavers were in the cave hauling trash to the entrance, so it could be pulled up the 92’ entrance pit. A secondary sinkhole was being cleaned up by the Stream Teams and Chad McCain located a small cave in this sink, which was uncovered by the garbage. **Feb. 4th** – Alex Litsch, Jeremy Weih and Caro Ludwig of the MSM Grotto surveyed 402.2’. –Chad McCain

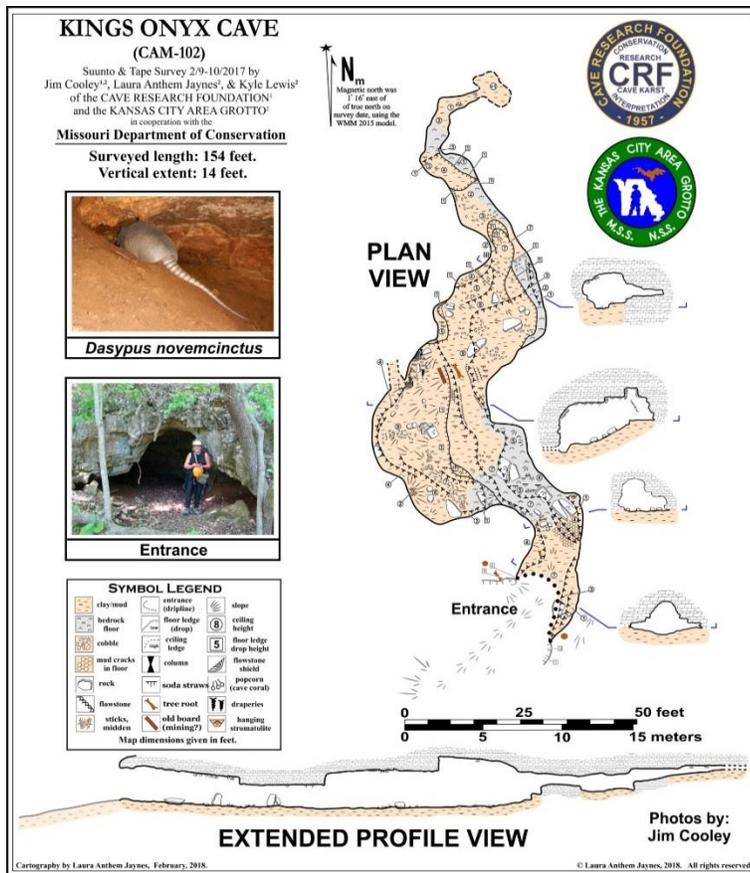
Lake Ozarks Grotto (LOG). Jan. 13th - Kiesewetter Cave Trip. The temperature was 14 degrees with a stiff wind coming out of the north. On the trip were Bill Kacerovskis from MCKC, Keenan Dillard and Roger Preston from Roubidoux Grotto, Christen Easter, Daren Donley and Godson Casey, Tom Atkinson and girlfriend Angela Alderson and Ken Long from LOG. The first obstacle was the property gate. The land is for sale and the gate was locked so they parked on the gravel road and walked in. Ken took a hand held torch just in case the lock on the cave gate was frozen. They started walking to the cave and Ken realized no Darren!!! Ken gave the torch to Christen and went back to call Darren. He was just a few seconds behind everyone so Ken started walking to the cave. At the entrance Christen was at the gate using the torch to keep her hands warm. She had gotten the lock open but could not get it out of the locking mechanism. Ken reached up inside the metal and within a few seconds managed to remove the lock. By this time they were all getting cold and it didn't take long to get inside the cave. Ken was surprised that the cave was still wet. With the unusually dry fall, he expected the cave to be dry. At the end of the 52- foot crawl to the first room, there is a stream to crawl over and it was still wet and muddy. Once inside the first room the temp changed and started to warm up. A few feet beyond this and it was around 60 degrees. They counted a few bats in the first room. Ken noticed one of the bats (pipistrell) had a few white spots on its muzzle (WNS). In all of the previous trips in the cave, this was never spotted before. They entered the formation passage first. and spotted several baby salamanders in the small pools of water and were very careful not to disturb them. They proceeded all the way to the end of the passage which is about 500 feet. In the past, a skunk and a rat had been seen here. There is a small inaccessible passage where these animals come into the cave. On this trip, there was a mouse but nothing else. They returned to the main passage and proceeded to Hartwigs paradise. All of the soda straws were dripping with water. Lots of photos were taken. They headed on toward the '87' room and the birth canal, stopping at the birth canal to count several more baby salamanders in the small pools of water. they took a 20 minute break and started to head out of the cave. Ken selected Angela to lead them out of the cave. She said she would try but wasn't sure she could do it. But she had paid attention and led them out without any problems. It was still cold outside but the temp had come up to 23 degrees. Everyone was muddy and damp so it didn't take them long to exit the cave and get to the vehicles. They spent about 4 hours in the cave, counted around 15-20 bats and about the same in baby salamanders. (report by Ken Long). Ownership of Kiesewetter Cave is being pursued by the MCKC. Ken has been the caretaker of the cave for the owner. **Jan. 21st** – Work day at Goodwin Sink with Klaus Leidenfrost, Ken Long, Chuck Lahmeyer, Gary & Alberta Zumwalt and 3 MST students from Rolla, Jackson Eberle, Benjamin Eskes, Elizabeth Sutherland. The three students worked very diligently in trying to open up the area to the tire. Should be getting close. Chuck worked on cutting some brush. The Zumwalts furnished lunch. Ken & Gary staked off where the pavilion would be built and made a list of materials needed. **Feb. 17th** – Exploration trip in Stark Caverns by Ken Long, Christen Easter, Abby Peper, Gary Zumwalt, Kerry & Kira Rowland. Charlie, the manager, turned them loose to explore in several side passages and they got muddy. It was a great trip! **Feb. 18th** – **Goodwin Sink** with Klaus Leidenfrost, Gary & Alberta Zumwalt. Klaus and Gary installed a piece of a cattle panel in front of the cave opening to the crawlway to keep debris from washing into the cave from flooding waters. The Zumwalts left their jon boat on site for possible use if water stands in the entrance.—Alberta Zumwalt

Kansas City Area Grotto (KCAG) Liaison Report for January-February, 2018: (Wherein your ready respondent regales you with a rescue, fascinates you with fabulous faunal finds, and divulges daunting discoveries impossible to deny...) **Jan. 6th**- KCAG's Bill Gee led a hydrology trip into Carroll Cave to upload data loggers, and to set a new stilling well to house a new data logger just below Thunder Falls. Participants included Bruce Archambault (Big Caverns Ranch owner), Brandon & Jessica Bright, Jim Cooley, Kristin Godfrey, and Jack Peters. A full trip report is on the CCC website. **Jan. 12th-17th**- Jim Cooley and Ken Grush participated in CRF cave monitoring operations for the National Park Service (NPS) and the Mark Twain National Forest (MTNF), operating out of CRF's new facility at the MTNF Ranger Station in Winona. The high point of this series of trips came when Dennis Novicky found himself nose-to-nose with an adult mama *Ursus americanus* and her two cubs, fifty feet or so back in a very tight Shannon County cave on the MTNF. The Missouri Department of Conservation (MDC) knew exactly who these culprits were, and they and the MTNF were very pleased that we'd

found their radio-collar-tagged sow and her family group, which had gone missing at the start of hibernation season. We were very pleased that the bears didn't eat Dennis. (Moral of the story: ***We are not alone.***) Jan. 25th-26th-KCAG continued our ongoing survey project at Allie Spring Cave in Pulaski County, where we already have two miles surveyed. These caves are located on Archambault's Big Caverns Ranch in Pulaski County, near Dixon – real big-cave country! Participants included Bruce Archambault (landowner), Don Archambault (landowner's brother), Jim Cooley, Bill Gee, Ken Grush, Dennis Novicky, and Rita Worden (Chouteau). Novicky, Gee and Worden surveyed for two days in Allie Spring, and Novicky pushed a low, wet lead several hundred feet through three ear dunks to a small, eight-foot-high dome room with a hole in the ceiling. Popping up through this hole, Novicky discovered a major new large borehole extension with multiple walking leads, which reinvigorated everyone's flagging enthusiasm for this tough-to-survey cave. Meanwhile, Grush and I surveyed that day in a another cave. The high point of this trip – or the low, depending on how you sight your clinometer – came when Bruce and Don Archambault dug into yet another cave, and Don, who is much smaller than Bruce, immediately popped through the tiny opening, discovered himself to be in a very large, highly decorated chamber, and immediately took off exploring. When Don hadn't returned in an hour, Bruce left a note on Grush's car for us give Don a ride back to the Ranch headquarters cabin when we completed surveying. Grush and I finished our survey work an hour and a half later, and not finding Don around, we returned to the cabin to see if Don had just hiked out, walking back across the 800-acre Ranch. He hadn't. This discovery worried all of us, so Bruce returned to the small, newly dug cave entrance, and found Don's effects still outside the cave. At this point, we realized something was seriously amiss. Per National Cave Rescue Commission (NCRC) protocol, we declared -- just to ourselves, as attempting a self-rescue is the first line of attack – a Missing Caver/Potential Rescue Incident. Gee, Worden and I have all had NCRC training; Gee and Worden have had the advanced, week-long training, while I just took the weekend seminar. I was elected "Incident Commander" (finally, my 15 minutes of fame!), and a "hasty team" of Novicky, Gee and Worden was scientifically chosen: They were the only people small enough to fit through the newly dug entrance. The hasty team hastily suited up, and we proceeded with Grush to the general area at the far end of Big Caverns Ranch. Grush was posted on the ridge top with the vehicles to act as a "traffic manager" and gate keeper in the event First Responders or other cavers rescuers were needed, while Bruce Archambault, Cooley, and the hasty team proceeded immediately to the cave entrance. We kept in touch using KCAG's FRS radios, which we normally use for ridgewalking. Rita Worden made the excellent, and prescient, suggestion that the hasty team pack in some rope. The team promptly entered the cave, and within five minutes, Novicky came back to the entrance to inform Bruce and I that they had located the younger Archambault. Don was jammed head-down at a 40-degree angle into a tight and continuously constricting, mud-slimed passage, only 158 feet from the cave entrance. Don was well and truly stuck, completely helpless to extract himself, and had been for over four very long hours. He later reported that he had lost consciousness two or three times struggling to get out, which struggles only served to wedge him in deeper and deeper. Novicky and Gee pulled on his feet, which were barely reachable down this tube, but they could not extract him in this manner. They then used the rope wise Worden had brought, tied it around his ankles, and with Worden, Gee and Novicky all pulling together as hard as they could, and with Archambault wiggling furiously to break his mud seal and contort around some rock obstructions, they finally managed to extract the hapless caver. Elapsed time from entering the cave until everyone exited was about 30 minutes. Subsequent discussion and incident analysis revealed that the inexperienced Archambault had made a common, but in this case nearly fatal, amateur caver mistake. After being wowed and distracted by a very large, beautiful new cave, he had some trouble finding the small, tight, up-sloping passage through which he'd entered. When he finally "found" it, his relief led him to enthusiastically slide in head-first – right down the wrong, very small hole. Although he realized his error almost immediately, by then he was hopelessly trapped. When finally rescued four and a half hours later, he was already becoming seriously hypothermic. Novicky also noted that if Don had not been conscious and able to yell in response the hasty team's calls, they would not have found him. When the tight hole he was wedged into was first examined, it looked for all the world like it ended in a couple

of feet in a hard-stop at a mud plug. That plug, it turned out, was actually all the mud stuck to the bottom of Don's boots! The moral of THIS story, my dear caver friends, is: If this little adventure story doesn't make your

skin crawl and put butterflies in your tummy, you need to either reread it again until it does, or hang up your helmet and knee pads and find something else to do. ;) **Jan. 27th**- Jim Cooley led a crew (broken into two teams) including Bill Gee, Dennis Novicky, Rita Worden and MSM cavers Jackson Eberle, Ben Esker, Ross Sparrow, and Nathen Winderl, to try to connect two off-tour tight passages in Stark Caverns, a recently reopened show cave in Miller County. While Dennis Novicky, leader of one team, reported pushing about 300 feet of very tight passage beyond the current map in one lead, we did determine that the hoped-for connection does not exist. **Feb. 6th**- Laura Anthem Jaynes, KCAG's excellent recording secretary, completed the cartography on her very first cave map, MDC's 154-foot-long Kings Onyx Cave, located on the Fiery Fork Conservation Area in Camden County. This map has been submitted to the cave files, and is attached to this Liaison report. The cave was surveyed in Feb. 2017 by Jaynes, Kyle Lewis



and Cooley. Cooley served as Jaynes's instructor during a series of hands-on classes on the art of speleocartography using WALLS and XARA. The result was a beautiful, detailed color map, and a black-and-white version as well – Jaynes proved to be a VERY quick study! Once the CRF-sponsored MDC permit is renewed, Cooley & Jaynes will complete the surveys and maps of the several other caves on that conservation area. **Feb. 10th-13th**- Keenan Dillard (Roubidoux Grotto), Brenda Goodnight, Ken Grush, Dennis Novicky, Caleb Schlager (SEMO), Shawn Williams and Rita Worden convened on Allie Spring Cave in Pulaski County. The group was to attempt to survey the large, multi-lead borehole passage that Novicky had discovered on the January trip reported above. Novicky and Goodnight scouted the ear-dunk passage again and ended up exiting through a new entrance to Allie Spring, the existence of which we had long suspected. On the first day of survey, the group split into two teams of three. One group surveyed the three ear-dunks and tight squeeze of the water-crawl connection, while the other group surveyed the increasingly larger passage from the new entrance. A second day of survey continued from the new-entrance side. Although failing to connect the two surveys on this trip, the ends of them appear to be only a 250-foot, straight-line distance apart. **Feb. 15th**- Lee Krout, Kirsten Alvey-Mudd (Missouri Bat Census), Jim Cooley, Kyle Lewis, and Jim Mudd searched for a cave on a lead sourced by Ken Grush off Facebook. The report was of a small entrance, bat-filled cave on U.S. Army Corps of Engineers (USCOE) land in Ozark County, adjacent to the Bull Shoals Lake floodplain. This project required obtaining permission from USCOE to enter the cave, who in turn first required that we obtain Letters of Approval from MDC and also the U.S. Fish and Wildlife Service (USFWS), since "bat-filled" meant the cave was likely an endangered or threatened species site (probably some sort of *Myotis grisescens* colony). Fortunately, Cooley's long working relationship with these agencies made obtaining these Letters and the USCOE permit easy. Unfortunately, we did not locate the site (Krout and his son had actually searched for two prior days as well), but we do have contact with the Facebook reporter, who has been to the site but apparently doesn't give very good

directions. He has promised to take us there himself in the near future. **Feb.16th- 18th**- Cooley and Krout led an expedition consisting of Kirsten Alvey-Mudd, Jim Mudd, Kyle Lewis, Tyler Skaggs, and MSM cavers Jackson Eberle, Ben Esker, Caroline Ludwig, Andrew Miller, and Elizabeth Sutherland, to Cloud 9 Ranch for the annual bat survey. Cloud 9 is in Ozark County, and has 33 caves and reportable karst features, scattered in the north half of 6,500 acres. Twelve of these caves were visited, resulting in the addition of 62 new faunal records to the cave files database. The bat populations continue to decline precipitously, and all bat-containing caves inventoried had *Perimyotis subflavus* infected with visible WNS. The two high points of the trip came when the crew was deterred from visiting the back half of Dani Cave by a nesting *Mephitis mephitis*, and when Kyle Lewis came rather abruptly nose-to-nose with a denning *Lontra canadensis* in the aptly named Otter Romp Den Cave. After a stern lecture by Cooley on having a "willingness to sacrifice for science," as well as the general known docility of subterranean *Mephitis mephiti*, the team returned to Dani Cave on a second day and finished the bat census. The skunk was still there, and it didn't spray anyone on that day, either. (Skunks like cavers. So do otters and bears. Water moccasins, well, not so much.) **Feb. 18th**- Krout and Cooley pioneered the use of drones at Cloud 9 to determine height above drain on caves located on high benches above cliffs, and did other QC work which resulted in the submission of three more maps to the cave files. So far, 11 of the 33 Cloud 9 maps have been finished and submitted. **Feb. 16th-19th**- Ken Grush joined Scott House in the joint-MTNF-ONSR facilities in Winona. Although much time was spent on maintaining the Missouri Cave Database, the dynamic duo monitored 11 caves on the upper Jacks Fork in the Caves of Three/Five Fingers area, and re-surveyed Swiss Cheese Cave near the other Alley Spring, for NPS on the Ozark National Scenic Riverways. The wrap-around view of Swiss Cheese reveals nine entrances, with 105 feet of passage length connecting them all.--Jim Cooley

Middle Mississippi Valley (MMV). Nov. 25th - Jim and James Sherrell, Bill Roswitt, Adam and Kathy Marty and Arik Lakritz visited Valle Mines via the Discovery entrance ("Big Lode"). The tasks were to a) Redo some of the "B" survey and a few short side passages and b) Continue the survey toward "Little Bill". The area is very mazy. Nearly one mile was accomplished and there is much passage remaining. **Dec. 31st** - Michelle Leicht, Larry Abeln, Jason Hanewinkel and Ioana Herte visited Reel Pit at the NSS Headquarters. It is a pit with an approximate 35 foot drop. **Jan. 1st**- Larry abeln, Michelle Leicht, Jason Hanewinkel and Ioana Herte visited Shelta Cave in Huntsville, AL. This is an NSS owned and managed cave. The group described it as an awesome cave. They explored the right side for approximately 5 hours. There are many formations and features. Note by Doug Leer: There is a Wikipedia on this cave at https://en.wikipedia.org/wiki/Shelta_Cave. **Jan. 29th** - Rick and Michael Haley visited Carlsbad Caverns. It was a tourist trip and there were a "whole lot of people in there". **Feb. 4th** - Larry Abeln, Michelle Leicht, Jason Hanewinkel and Ioana Herte along with others worked at Pentagon Pit to start pulling trash out. It was also in conjunction with Clear Stream and MSM. It is a 200' pit with multiple drops and is the deepest pit in Missouri. A lot of trash was removed. **Feb. 17th** - Michelle Leicht, Larry Abeln, Jim and James Sherrell and Jason Hanewinkel visited Valle Mines via the Garrity entrance. The purpose was to locate previous mapping markers. A new passage was found additional leads were noted. The group spent 8-9 hours underground.--Doug Leer

Springfield Plateau Grotto (SPG). Jan. 1st—Casey Scarlett and Brian Moore toured Florida's only show cave, aptly-named Florida Caverns. **Jan. 3rd & 10th**—Jon Beard completed his photo-cataloguing of broken speleothems in the Paul's Gallery passage of Fitzpatrick Cave(Christian Co). To date there have been 2,270 photographs taken of broken faces of stalactite and mite bases and stalactite stumps (846 pieces, 895 stumps). The next phase of the project is to group the data using algorithms and compare photos to determine which break surfaces match with others. **Jan. 5th**—Eric Hertzler assisted Jon Beard in the survey and monitoring of Stove Door Cave (Christian Co) on behalf of the CRF for Mark Twain National Forest. The 164-foot cave is surprisingly complex with a number of joint-determined passages and domes. At no point in the cave is it more than 50 feet distant from the entrance. **Jan. 6th**—Max White, Eric Hertzler and Jon Beard continued the survey of a Christian County cave in Mark Twain National Forest for the CRF. **Jan. 11th**—Jon Beard accompanied MDC staff in Jolly Cave(Newton Co), a long-abused cave to bio monitor species, review the cave's features and determine

how to keep vandals out yet allow free flow of fauna. In the 1990s, cavers from a number of caving organizations participated in a major restoration effort that included removal of spray paint and tar graffiti and removal of soot from speleothems. At present there are at least 17 pips hibernating in the cave. **Jan. 13th**—Eric Hertzler and Jon Beard bio monitored Tate Spring Cave and completed the survey of nearby Tate Cave (Christian Co), privately owned caves. Tate Spring is mired in slabby breakdown that makes for slow, awkward crawling and occasional tight squeezing. In warm weather it might be possible to bellycrawl in water to proceed further. Tate Cave is a bit more accommodating and has a surprisingly well decorated passage, although heavily vandalized the past 100 years. It was mapped to 226 feet. **Jan. 18th**—Jon Beard assisted with an MDC bio monitoring trip to the entrance and Bat passages in Mary Lawson Cave (Laclede Co), the longest known cave in that county and also the habitat for hibernating Indiana bats as well as very large maternity colonies of summer gray bats. **Jan. 21st**—Eric Hertzler and Jon Beard spent the day conducting reconnaissance in Webster County, driving roads, knocking on doors to search for undocumented caves. Two were found, Peck Hollow Cave and Johnnie Long Cave, the latter being surveyed. They also photographed the entrance to Mountain Dale Spring Cave, previously checked by Charley Young and Roy Gold. **Jan. 22nd**—Brandon Van Dalsem and Jon Beard continued the survey of Shoal Creek Cave (Newton Co), amassing another 400 feet of survey. This brings the ongoing total to over 3,000 feet with roughly 1,000 feet remaining. The section surveyed on this visit is complex, multilevel stuff that will be a challenge to depict on a flat piece of paper. This is the longest known cave in the county, a gated cave managed by SPG. After Jon described the hundreds of spelobia seen in the cave after returning home, wife Alicia described the locomotion of spelobia as “flumping,” a combination of trying to fly while jumping. **Jan. 24th**—Jon Beard accompanied five MDC agents to monitor Turnback Cave (Lawrence Co), a cave managed by the MDC. As many as 18 species were recorded after seeing most of the cave. **Jan. 26th**—Eric Hertzler and Jon Beard monitored Yount Hollow Cave (Christian Co) as part of ongoing CRF projects on Mark Twain National Forest. After the short cave was monitored, they hiked the hollow to see if there were additional caves in the Pierson Limestone in the hollow. They documented, monitored and mapped Spring Box Cave, a short low cave, then before nightfall, documented and monitored Cross Joint Cave, at 70 feet, the longest of the three caves. **Jan. 27th**—SPG conducted its annual winter bat count of Breakdown and Fitzpatrick Caves (Christian Co). Participants were Chris Lewis, Jake Colvin, Treavor Bussard and Jon Beard with guest Paden Gordon. The typical count for many years was 150-180, however, the past three years the counts were 250, 237 and 350. This year the bottom has begun to drop out with a combined total of 102 (96 pips [85 in Breakdown], 6 big browns). Other biota were recorded as well. Breakdown Cave is closed from Nov. 15th to Apr. 1st every year except for the annual bat count). **Jan. 28th**—Max White, Eric Hertzler, Dillon Freiburger and Jon Beard continued the survey of Hog Pen Cave (Christian Co) as part of CRF survey work in Mark Twain National Forest. They split into two survey teams with Eric and Dillon sketching and amassed 300 feet of complex passage. The survey should be done in one more trip. Fauna was recorded and photographs were taken during the sketching. **Feb. 3rd**—Dillon Freiburger, Treavor Bussard, Jon Beard and a biology professor from College of the Ozarks attempted to locate Schultz Cave (Taney Co) to monitor and survey, but were unable to find the entrance where it allegedly was. After hunting for over 90 minutes, they abandoned that task. Afterwards, Dillon and Jon attempted to find two small caves elsewhere, again without entrances being where they were supposed to be. There are days when a batter is 0 for 3 at the plate. **Feb. 8th**—Jon Beard accompanied three MDC agents (Rhonda Rimer, Steve Laval and Kevin Hedgpeth) to a new MDC acquisition, still mostly privately owned, for a bio inventory. Saltpeter Cave (Dallas Co) is not a long cave, but is a summer gray bat cave. Sadly, there were more big brown bats using the cave this winter than pips. **Feb. 9th**—Treavor Bussard and Jon Beard completed the survey of the longest side passage in Hog Pen Cave (Christian Co) as part of the CRF project there. They mapped 136 feet of meandering crawlway with a bedrock or cave coral floor, alternating from tight bellycrawl squeezes and passage up to four feet high. About halfway through the survey they reached a modest 8-foot tall genesic dome, and at the end of the passage was a decorated 18-foot genesic dome. All that remains is a 100-foot terminal section of the main passage. **Feb. 12th**—After meeting with a city engineer, Treavor Bussard and Jon Beard visited a group of caves collectively known as the Roark Valley caves. There were as many as seven caves in the database here, three of which were mapped, one of which by two sets of surveyors the same year under different cave names. Gee, that’s not too chaotic is it? So, one by one, caves west to east were GPSed, monitored and photographed: Keyhole Cave, three-entrance Roark Valley Cave (a.k.a.

Braswell Cave), Unexpected Dome Cave and Mossy Rock Cave (a.k.a. Bear Cave). Roark Valley and Mossy Rock have been used by homeless people as evidenced by the blankets, clothing and trash inside. These same two caves are both habitat for pips. A report and photos were sent to the Branson city engineers and the MSS database was revised. **Feb. 14th**—Jon and Alicia Beard presented a program on Cave Restoration Techniques at the February KCAG business meeting. The program showed supplies, before-and-after photos of seven types of restoration before the gang retired to Minsky's Pizza. **Feb. 15th**—Jon Beard assisted Justin Smith of the Springfield-Greene County Parks Dept. in a bio-monitoring trip to five caves in Ritter Springs Park. In order, they visited the first half of Ritter Bat Cave, nearly all of Junction Cave, all of Blowing Cave, Cricket Hole Cave before noting the location of Ritter Spring Cave (wet) and finishing with Possum Pit Cave. WNS was visible in a few bats in two of the caves. **Feb. 16th**—Two teams consisting of Brandon Van Dalsem and Treavor Bussard in the longest side passage and Eric Hertzler and Jon Beard in the main passage completed the survey of 1,200-foot Hog Pen Cave (Christian Co) in Mark Twain National Forest to complete the field work in this CRF project. The teams mapped a combined 295 feet. 1,100 of the 1,200 feet is crawlway, making anywhere where one can stand a luxury. Several very tight squeezes keep the big boys out. **Feb. 17th**—Dillon Freiburger ridgewalked a section of Mark Twain National Forest in Christian County, documenting and surveying a minimal cave he named Sayornis Only Cave for its phoebe nest. **Feb. 18th**—Eric and Charity Hertzler ridgewalked another section of Mark Twain National Forest in Christian County, documenting and mapping Medlock Hollow Cave to 32 feet, recording its fauna. **Feb. 21st**—Jon and Alicia Beard attended the cave map display hosted by Meramec Valley Grotto and Mehlville High School in the St. Louis metro area. Despite the threat of freezing drizzle (roads were fine, however), the event was attended by over 60 people and featured more than 40 maps produced by Missouri cartographers including some in southwest Missouri. Maps of nearly all of the state's ten longest caves were on display as well as many not as long. The map of the state's longest known cave, 30-mile Crevice Cave, was printed on a scale of 40 feet = one inch. The 30 by 30 foot map is longer than some actual caves! Big thanks to those who made the map event possible. It was very awesome to see so many incredible cave maps! **Feb. 24th**—Eric Hertzler, Dillon Freiburger, his friend Braden and Jon Beard did some CRF ridgewalking in Mark Twain National Forest in Christian County, trying to take advantage of profuse rain the past few days to see if caves would give themselves away by producing rampaging streams. Sure enough, there were many stream shooting out of the bases of rock outcrops. However, other than counting biology in short Medlock Hollow Cave, they found no enterable openings. They know where cave entrances are not! **Feb. 28th**—Jon Beard mapped Tabor Shelter and Right Angle Cave (Christian Co) as part of CRF projects in Mark Twain National Forest. He also took entrance photos of Shadow Rock, Peekaboo Spring and Chimney Hole Caves nearby.--Report Max White. Material provide by Jonathan Beard.

MSS MINUTES. The Winter 2017 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on January 20th, at the DGLS Annex bldg., in Rolla, MO. **Introduction of Officers:** Dan Lamping, President; Scott House, Vice-President; Alberta Zumwalt, Secretary; Don Dunham, Treasurer. **Roll Call of Directors:** Al Quamen, LEG; Lorin O'Daniell, PEG; Doug Leer, MMV; Krista Bartel, CCC; Max White, SPG; Ken Grush (proxy for Jim Cooley), KCAG; Rita Worden, Chouteau; Alex Litsch (proxy for Tony Schmitt), MVG; Chad McCain (proxy for Alicia Wallace), MCKC; Dan Slais, RBX; Jessica Self, MSM; Craig Williams, CAIRN; Gary Zumwalt, LOG; Absent were: Bill Heim, OHG; and representation for SEMO. **Secretary's report.** Alberta Zumwalt reported that the minutes of the Fall 2017 meeting were distributed after the meeting to the Directors and Officers and were printed in the Sept.-Oct. issue of *MSS Liaison*. The minutes were approved. **MSS Liaison.** Gary Zumwalt reported sending out 42 paper copies and the rest as electronic copies with cash on hand of \$429.18. The next deadline is March 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 – Dec. 31st, 2017 - ACCOUNTS:** General fund \$10,078.28; Subscriptions *Missouri Speleology* \$4,482.66; Research Funds \$12,724.78; Anne Johnson Data Fund \$19,654.73. Interest checking \$94.80; Affiliation fees \$1125.00; Subscriptions *Liaison* \$531.00; Total \$48,691.25. **ASSETS:** Savings bonds \$2,000.00; Interest checking \$6691.25; Certificates of deposit \$40,000.00; Total \$48691.25. **INCOME STATEMENT. INCOME:** Individual membership dues/subscriptions \$960.54; Interest \$19.03; *Missouri Speleology* \$280.71; Organizational Affiliation fees \$325.00; CRF donation

\$700.00; Merchandise \$204.50; Total \$2489.78. EXPENSES. *Missouri Speleology* \$1084.93; *Liaison* \$500.00; Anne Johnson Fund \$85.00; Bank fees \$96.00; Merchandise \$400.00; Total \$2165.93. Net Gain \$323.85. BALANCE SHEET – for the year ending December 31st, 2017. ENDING BALANCE 12/31/2017: Interest checking \$6691.25; Savings bonds \$2,000.00; Certificates of deposit \$40,000.00. Total \$48,691.25. BEGINNING BALANCE 01/01/2017: Interest checking \$46,367.40; Savings bonds \$2,000.00. **Missouri Speleology.** Don Dunham reported Vol. 57 – Caves of North Fork Basin II, which includes a cd, has been printed. Copies not picked up at the meeting will be mailed. The next volume printed may be the Cherokee Cave issue which Pres. Lamping is working on. **MSS Research Council.** Pres. Lamping said two people are needed to fill the vacancies of Jerry Vineyard and Oz Hawksley. He asked for the appointment of Bob Lerch and Mick Sutton. Chad McCain made a motion to add Bob Lerch and Mick Sutton to the Research Council. Seconded by Alex Litsch. Passed. Pres. Lamping said that at the Fall meeting, the terms of Dwight Weaver and David Ashley will expire and there will be an additional two appointments to the council. Pres. Lamping said that Ben Miller and Bob Lerch had applied for research funds for dye tracing for a Roaring River Spring project for the amount of \$3,000.00. Scott House added that the funds would all go to supplies, time is being donated. **Cave Files.** Ken Grush reported over 7300 caves. He added that Shannon County is catching up with Perry County. Scott House reported 31,000 faunal records which only the MSS has this data of cave life in the state. **Agency reports. Mark Twain National Forest:** Scott House reported over 800 known caves. Work is being done in Berry Co. region, Christian Co., Rolla and Houston district. An old ranger station at Winona serves as a good central location. Some Aboriginal rock art has been found. **Ozark National Scenic Riverways:** Scott House reported that the Powder Mill facility had flooded and will probably not be restored. So they are using the building in Winona. **Missouri Department of Conservation:** Pres. Lamping said they are assuming that the permits get renewed this year. He said there are a limited number of “wildlife collection permits” available and paperwork has been submitted for specific projects. Scott House said each region has a “natural history biologist.” To do any work, it has to be under “wildlife collection” although no wildlife is being collected. Jim Sherrell added that there was a nice article on Sculpin Research in Perry Co. in the Conservation magazine. **State Parks:** Scott House reported that last year they had a mini grant and Ken Grush went through their files. He said two people came from Pioneer to talk about problems, etc. Pioneer Forest cave is the 10th largest Indiana Bat population in the world. **Affiliate Organizations project reports. Berome Moore** – Chad McCain reported 36 survey trips with 3.21 miles mapped last year. Berome is 2nd and Carroll is 3rd in length. **MVG** – Alex Litsch announced a cleanup with a 200 ft. deep pit (4 or 5 drops). They need vertical cavers to bring trash out to a stream team. Pres. Lamping said MVG will present “Cave maps of Missouri, Illinois and beyond” at Mehlville Senior High School on Feb. 21st at 7 p.m. They will lay maps out on the gym floor. **Other** – Chris Lewis has an app that will send him a notification every time property goes up for sale in the realtor’s database with a cave on the property. He can notify cavers in the area and they can see if it is a known cave. **Public outreach:** Pres. Lamping said that Jeff Crews posted some stuff on the website today. Pres. Lamping puts *Liaison* on it regularly. There store items, *Missouri Speleology*, etc. Ken Grush said there is a new Facebook entity “Missouri’s Caves, mines and Rock Formations.” Pres. Lamping said they have 8000 members, most no cavers. Chad McCain and Alex Litsch have been on there. Pres. Lamping said he posted the MSS meeting on there. Jeff Crews reminded everyone not to talk down to anyone in the group. **Next meeting:** May 6th, 10 a.m., Berome Moore pavilion, Perryville, MO. Scott House proposed the Fall meeting tentatively for Sunday, September 9th, at Current River State Park. He will have to check on availability. Meeting adjourned. – Respectfully submitted, Alberta Zumwalt, Secretary

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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

The new MoCaves: <https://groups.yahoo.com/neo/groups/mocaves/info>

Please note: Address change for MSM Director, Jessica Self and two additions to the Research Council.

Historical MMV DVD – \$15 (\$12 for DVD & \$3 postage) Available from: Elaine Hackerman, 4701 Utah Ave., Nashville, TN 37209. Jerry Vineyard is featured on the DVD. The DVD was done for the 50th Anniversary of Middle Mississippi Valley Grotto.

CALENDAR:

April 7th – Next Goodwin work day. Contact Klaus Leidenfrost if you can attend so he has a count on lunch.
Email goodwinmgr@mocavesandkarst.org

April 20th – Next MSS Liaison deadline.

April 20th – 22nd – **Spring MVOR**, hosted by Daedalus Cavers, Indian Spring Resort & Campground, 196 Indian Springs Rd., Steelville, MO.

May 6th – **Spring MSS meeting**, 10 am Sunday, Berome Moore pavilion, Perryville, MO. There will be work trips all weekend.

June – **MCKC meeting**

Sept. 7th-8th – **Fall MSS weekend**, Current River State Park (old Alton Club).

