

THE MSS LIAISON

VOLUME 56 NUMBER 9-10

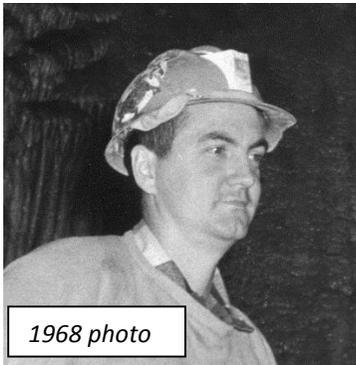
September - October 2016



AFFILIATE ORGANIZATIONS:

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

Distributed free on the MSS website:
<http://www.mospeleo.org/> Subscription rate for paper copies is \$10.00 per year. Send check or money order made out to the Missouri Speleological Survey to the Editor, Gary Zumwalt, 1681 State Route D, Lohman, MO 65053. Telephone: 573-782-3560.



REMEMBERING PAUL A. JOHNSON

Tall, talented, creative, soft-spoken and often laid back, caver Paul A. Johnson, along with his slender wife Anne, also a caver, made their appearance in the caving community of central Missouri in 1962. They immediately joined Chouteau Grotto of Columbia, Missouri, and invited the grotto membership to their home in Jefferson City for a get-acquainted gathering. As an active member of Chouteau Grotto at that time, I met Paul and Anne and our friendship blossomed almost immediately. I was a project-oriented caver and so was Paul. In the 40 plus years that followed Paul and I teamed up and, besides caving together, produced a series of books on Missouri caves that became a first in the state.

Paul was born in Harrison County, Missouri, six miles southeast of Ridgeway on July 2, 1932, the son of Andy and Velma (Tripp) Johnson. He graduated from the Ridgeway Public School in 1950 and enrolled at the University of Missouri, Columbia, from which he graduated with a Bachelor of Science degree in Civil Engineering and a 2nd Lieutenant's commission in Army Artillery in 1956. It was while at the University that he met Anne Risser of Lancaster County, Pennsylvania, who was attending Stephens College in Columbia. They were married May 20, 1956.

While studying at the University of Missouri in 1953 Paul took a geology course under Dr. M. G. Mehl, a noted paleontologist with an interest in fossil bones found in Missouri caves. Paul took an interest in the Devil's Icebox located in Boone County just south of Columbia in one of Missouri's most significant karst areas, gathered some caving companions since Chouteau Grotto did not yet exist, and made the first map of the Devil's Icebox, which was no small task. He would later accompany Dr. Mehl on several research trips.

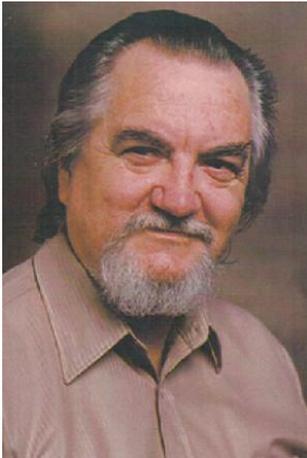
Following a tour of duty in the Army at Fort Sill, Oklahoma, Paul and Anne settled at Columbus, Ohio, where Paul obtained work at North American Aviation. While with the company he helped design the twin jet bomber, A3J Vigilante. Paul was scheduled to work on the B1 bomber when the government contract disappeared and he was out of a job. After turning down a position at the Redstone Arsenal at Huntsville, Alabama, to work on the upcoming Saturn rocket project, he returned to Missouri and took a job designing bridges for the Missouri State Highway Department. He was promoted to Structural Design Group Leader and remained in that position until retirement in 1994. Missouri has several highway bridges that he designed still in use, in particular a high unique and elegant bridge that spans Highway 65 south of Branson.

While living in Ohio, Paul joined Central Ohio Grotto and in 1958 the National Speleological Society (4200RE). He and Anne became friends of Jim Dyer, Roger Brucker, Joe Voigt and Fred Bennington. They explored caves in Kentucky, Floyd Collins Crystal Cave in particular. Paul also edited the *COG Squeaks*.

With their arrival in Missouri in 1962, Paul took a leadership role in Chouteau Grotto and served as president of the grotto for a time. He worked with Dwight Weaver, Tex Yokum and other Missouri cavers in 1962 to draft a new organizational structure for the Missouri Speleological Survey (MSS) that changed its governance from three independent directors to a board of directors representing all caving groups in the state. He also led teams of cave mappers to Phelps, Pulaski, Miller and Morgan counties to produce cave maps for *Missouri Speleology*; served as Chouteau Grotto's representative on the MSS Board of Directors; served as editor of *Foresight*, the newsletter of Chouteau Grotto; served as editor of *MSS Liaison*, the newsletter of the Missouri Speleological Survey; and also served as the custodian of the Jefferson City MSS Cave Files for more than 50 years. During his cave mapping years he was lead mapper and drafter of 27 cave maps from eleven Missouri counties and a participant in other cave mapping projects.

Paul was a man of many interests. He did not have one hobby, he had many. He was a good photographer, a competent artist and produced sketches and artwork that had strong mechanical qualities. His artwork appeared in caving publications, coloring books, backdrops for little theater productions and the books he designed and illustrated for author H. Dwight Weaver. They included *Adventures at Mark Twain Cave* (1972); *Onondaga, the Mammoth Cave of Missouri* (1973); *Meramec Caverns, the Legendary Hideout of Jesse James* (1977); *Missouri, the Cave State* (1980); and later revisions of several of these books.

Paul was deeply invested in genealogical research and in retirement photographed and mapped 1600 hard-to-find and forgotten cemeteries for various historical societies in Missouri. He was instrumental in starting the



Little Theater in Jefferson City and was a member and contributor to the efforts of the Cole County Historical Society. He served in the Missouri National Guard and retired after 20 years with the rank of Major.

Paul Johnson suffered a stroke and died at age 84 on September 22, 2016. There are many who will miss him and remember him, I for one, because of all the great times we had beneath the earth and publishing cave books. Anne preceded Paul in death and passed away in 2000. They are buried in Hawthorn Memorial Gardens in Jefferson City. They had no children. He was survived by one brother, Donovan Johnson of Dearborn, Missouri; three sisters: Alice Brown of Murry, Iowa; Helen Nebel of Overland Park, Kansas; and Ruth Janezich of Ridgeway, Missouri; and numerous cousins, nieces and nephews.

Rest easy Paul and don't get overwhelmed in projects on the other side. -- By H. Dwight Weaver NSS 3753RE (PH-FE)

Missouri Speleological Survey President's Message November 2016. At the Fall 2016 MSS meeting we accomplished quite a bit of work including a completed gating project for Streiler City Cave, owned by the City of Perryville, three survey crews which mapped in Berome Moore, continued survey work in Crevice Cave and three survey crews which mapped in St. Genevieve County's Gegg Cave.

The gating project, organized by Scott House, in cooperation with the City and MCKC was a true example of a successful public/private endeavor to protect a natural resource. Over the past two years MSS has been working with the City of Perryville (building off a long history of cooperation) to better document their cave resources, including relocating caves, re-establishing an institutional awareness of their caves, documenting cave life within the urban, agricultural environment and mapping caves where needed. When Streiler City Cave was first re-entered by cavers following years of no visitation, it was surprisingly discovered that the cave was a rich and healthy, biologically diverse reinforcement that the City's efforts to improve water quality and

mitigate the urban impact on their caves has been successful, particularly when compared to the cave's foul condition when last visited, decades ago. Participants included MSS and CRF cavers, MCKC, volunteers from local grottos such as MVG and MMV, the City of Perryville and the Missouri Department of Conservation. In addition, the project received a fair bit of media coverage including a story in the local newspaper and an interview with Scott in the local TV news.

Aside from the gating, three survey crews picked away in the Stream Annex area of Berome Moore Cave. Two crews worked in Lower Stream Annex and one went a short distance upstream. Teams included myself along with Berome veterans Jim and Jimmy Sherrell, a team of college kids from Southwest Missouri led by Dillon Freiburger and a team led by Krista Bartel, with Krista coming along quite well at sketching.

Chad McCain took several crews to work in Gegg Cave. Most interesting from this trip, aside from the fact that the cave now exceeds two miles of surveyed length was what seems to be the first, or among the first times a DistoX has been used to run a cave survey in Missouri. These laser devices, in the single push of a button measures length, azimuth and inclination, and could possibly all but replace traditional cave survey tools someday. For the time being though it doesn't seem the Missouri caving community is quite there. Nevertheless, it's great to see Chad experimenting with it and learning the quirks of calibration. Look for more from Chad on this in the future.

Lastly, on Saturday Paul Hauck led a crew into Crevice Cave getting 357 ft. of new survey. That brought Crevice, Missouri's longest mapped cave, up to 30.7 miles. There is still more new survey to be had in that passage. Paul reports that the survey stopped under the front door of a nearby house and it appears the passage will continue on under the house toward a sinkhole over by the highway.

Aside from the caving we had a meeting, which like most meetings was largely uneventful. Both Scott House and I were re-elected as officers, Don had the store and sold quite a bit of merchandise. As well he brought along the latest issue of *Missouri Speleology*, Volume 55 *Ozark National Scenic Riverways Bat Survey Winter 2002-2003* by Mick Sutton and Scott House.

This last meeting was however Jon Beard's last meeting as the MSS Affiliate Organizations Officer and as a Board member representing the Missouri Caves and Karst Conservancy. Jon's contributions to the MSS, Missouri caves, caving and speleology in general are nearly immeasurable. Jon has served as the Affiliate Organizations Officer since 1987. Since 1995 Jon has maintained a spreadsheet showing the various affiliates, their representation at meetings, their activity reporting in the *MSS Liaison* and their annual report history. Jon has also served on the MSS Board multiple times, representing OHG in the 1990s and early 2000s and then representing MCKC since 2007. Aside from his institutional contributions, throughout the years Jon has been a prolific cooperater; one of the greatest the MSS has ever known. Exceeding three decades of contributions Jon has turned in over 100 new cave locations, has authored over 100 cave maps and has helped nearly as many additional surveys where someone else drew the map. This all in addition to his efforts and leadership roles in cave conservation and his astute observations of Missouri cave life, which includes over 500 records of individual species occurrences from Missouri caves documented by Jon. Fortunately, while Jon may be stepping aside from the institutional aspect of the MSS, this will hopefully create even more time for him to do what he does best, work with people and caves and share his great work with others. Thank you Jon for your years of service. That said, for now the position of Affiliate Organizations Officer is vacant. The task includes evaluating applications for new Affiliate Organizations and seeing that the requirements to maintain the status as an Affiliate Organizations are fulfilled each year; specifically by submitting annual reports. This leaves us with a decision to make. Do we fill the position or not? If we fill it, do we keep it the same or makes changes? Please consider your thoughts on this before the next meeting.

Lastly, as one of Jon's final tasks as Affiliate Organizations Officer, he reported at our previous meeting that the Roubidoux Grotto had fulfilled all of their requirements to be an Affiliate Organization and starting the Winter 2017 MSS Meeting, Roubidoux will have a place on the MSS Board. Welcome Roubidoux.

The Winter 2017 MSS Meeting will be Saturday, January 21st at the Geologic Survey in Rolla at 1:00 PM. The morning will likely include cave files work, map displays and possibly presentations. Also, there will likely be a cave survey trip that Sunday following the meeting. Contact me if you have questions and contact me if you're interested in or willing to give a presentation at the Winter meeting. --Dan Lamping

Roubidoux Grotto (RBX). Meetings in September and October showed work on contacts with local landowners with caves on their property. Communication was exchanged between RBX and Ron Jones in Germany. Loaner equipment being completed with 6 loaner helmets RBX and two light set ups with two Rayovac Indestructible Headlight bars (180 Lumens). RBX Grotto will be helping set up the educational component of the Newburg Children's Museum exhibit. The October meeting was adjourned and four members went to examine simulated cave structure being worked on by the MSM grotto. A Roubidoux Cave cleanup was projected for November 5th. **Aug. 27th** – Lukus Shoffner, Jessica Self, and Ryan Thompson went to Perkins Cave. **Sept. 11th** – Lukus and Jessica went to Mill Creek Cave. **Sept. 17th – 18th** - Lukus and Jessica did CRF work. **Sept. 17th** -Karen & Marc went to Campground Cave, This was Marc's last trip underground with the grotto- Army has transferred him to New Hampshire. Marc's son Kyle and Karen's grandnephews Joe & Howard were on the trip. This was Kyle's second trip and Joe and Howard's first trip. All the boys enjoyed the trip and Laura has high hopes that they will be a part of the next generation of cavers. **Sept.29th –Oct. 2nd** - Jessica Self went to show caves during Fall 2016 MVOR in Bonnieville, KY. **Oct. 22nd** - A Peterson ridgewalk, was held to finish and validate info from Feb. trip. Karen Hood, Ryan Thompson, Laura Huffman, Kyle Huffman, and Dan Slais were checking the bluffs. Matching cave entrances with cave records, GPS data, cave entrance pictures, and entrance measurements were taken. Several holes were not quite 20 feet long. Cave records will be forthcoming to MSS.—Dan Slais

Kansas City Area Grotto (KCAG). **Aug. 27th** - KCAG President Jack Peters led a grotto a novice trip to Perkins, with a Scout group. Jaclyn Dalbey, Jane Sung, and several others attended. Perkins Cave is managed by MCKC for the caving community using a permit system. **Sept. 1st - 9th**- Jim Cooley, Dennis Novicky, Brenda Goodnight, Max White, Cheryl Paulson, George Bilbrey, Joe Williams, Mark Jones, Ethan Cockerham, and Reva McAulay rebuilt the 50-foot-wide, up-to-18-feet-high Gustafson Cave gate on the Sylamore Ranger District of the Ozark National Forest, in north-central Arkansas. Afterward, Cooley, Novicky, Goodnight, Cockerham, and McAulay proceeded to Oklahoma to gate a small entrance on Three Forks Cave, and then went to Flippen Cave in Benton County, MO, which was recently breached, and repaired the damage there. KCAG President Jack Peters led a Scout trip to Cleveland Cave, the longest cave in St. Clair County, which is managed by MCKC using a permit system. This is a preferred site for KCAG public outreach trips. **Sept. 22nd**—Jim Cooley gave a cave survey workshop at his home, attended by new grotto members Tim Barrientos, Jenny Sung, and Jaclyn Dalbey. **Oct. 4th** – Jim Cooley repaired the White's Creek Cave gate on the Irish Wilderness, with a Forest Technician Kevin Cox from the Mark Twain National Forest. **Oct. 6th–7th** - Jim Cooley and Ken Grush visited a bat cave on the Ozark National Scenic Riverways, then surveyed two small caves in Ripley County. They also checked the gate on Lewis Cave. **Oct. 11th**- Jim Cooley and Heidi Fletcher gave a three-hour class on caving for the University of Missouri at Kansas City's Communiversit extension program. **Oct. 15th-17th**- Jim Cooley and Rita Worden backpacked in and surveyed Piney Creek Keyhole Crawl Cave, on the Piney Creek Wilderness. **Oct. 24th –Nov. 1st**- Jim Cooley served as a technical resource and subject matter expert for the re-gating of River Cave at Ha Ha Tonka State Park. The previous 40-foot-wide, 16-foot-tall chute gate, protecting a large gray bat maternity colony, was destroyed by a July 2015 catastrophic flood event. It was rebuilt using FEMA disaster relief funding. The replacement gate will be similar to the destroyed gate that was removed. **Oct. 29th** - Bill Gee led his annual Mountain Room bat census trip into Carroll Cave. Accompanying Gee were Cliff Gill, Ben Perkins, and Tom Clark. They saw two clusters of gray bats, one about 200 individuals and the other about 700 or 800 individuals. Both were spread out along the ceiling. Otherwise less than a dozen single bats were seen. This is a significant reduction from previous years. They also saw several salamanders, two surface fish (one a bluegill, the other a sculpin), and two frogs, one of which was probably a leopard frog. The usual guano pile activity was seen. Each gauge showed about the same activity as in previous years. They did an isopod count. The numbers are down from previous years. —Jim Cooley

Middle Mississippi Valley Grotto (MMV). Sept. 22nd - Jim Sherrell, Chris Doerhoff, Jessica Self with other MSM members visited Valle Mines (Big Lode). The trip was for Inventory & Exploration. The trip was long with many loops and mostly 5' tall passages. **Sept. 23rd-25th** - MSS Meeting Weekend: Jim Sherrell, James Sherrell and Dan Lamping worked on the survey of Lower Stream Annex in Berome Moore. Don Dunham and Darrol Gasawski of MMV as well as many others worked on the re-gating project at Streiler City Cave in Perryville. Doug and Michael Leer, and Darrol Gasawski visited Berome Moore to see the cat tracks in Cat Track passage and also did the Gypsum Passage loop back to basecamp and out. Doug and Michael Leer entered Tom Moore Cave (pit entrance) and went just far enough to see the Grotto Sculpin. They saw about a dozen of them in a knee deep pool not too far into the cave. Numerous other trips were taken into Berome Moore and Tom Moore by MSS members over the weekend. The day after the gating, Dane Driskill, John Beard, Alicia Wallace and many other members visited Streiler City Cave to do a Biology trip and trash cleanup. Lots of salamanders, frogs, isopods and a lot of water. **Oct. 1st** - Maggie & Bryan McAllister, along with Alicia, Mike and Ethan Wallace attended the Fall MVOR where they went on the Domes and Dripstones Tour of Mammoth Cave



National Park. After the tour they visited Floyd Collins final resting place in a small country cemetery within the park. Then they visited Sand Cave, also in the park boundary, where he had perished in February of 1925. Later, Maggie and Bryan, with several members of the Louisville Grotto,

participated in a small trip into Salt Peter Cave in the Lone Star Preserve. The kids explored a dig that pinches, while Bryan searched for Andy Collins' (Floyd's brother) signature in the cave.

There were thousands of signatures and graffiti, most of which are historic, throughout the cave, many dating back to the mid 1800s. The search was successful as he found Andy Collins' signature dated 1941, also, coincidentally, the year of his death. **Oct. 4th** - Don and Jan Dunham visited the Delaware Copper Mine in the



Keewenaw Peninsula of Michigan. It was a self-guided tour of a defunct copper mine. They were able to walk along the 1st level of 9 levels for approximately a half mile. All the lower levels were flooded. **Oct. 21st** - Don and Jan Dunham attended the Sodalite Nature Preserve dedication. The preserve is the largest known bat hibernaculum for the endangered Indiana Bat with over 170,000. **Oct. 22nd** - Rick Haley and Bob Osburn surveyed 120 meters in Fogelpole Cave (Illinois). The water was way up and there were very large and wide foam mounds in the stream that had to be negotiated.--Doug Leer

Springfield Plateau Grotto (SPG). Sept. 1st—Jon and Alicia Beard visited Devils Den State Park in Arkansas, photographing the entrances to Devils Den and Devils Icebox (Arkansas) as well as other pseudokarst features. All features are in sandstone, the result of a tectonic event in the distant past. The longest of the caves is over 600 feet despite being formed by non-solutional means. **Sept. 3rd**—Faith and Chris Lewis, Treavor Bussard and Jon Beard completed the task of cleaning more than 700 broken speleothem pieces in Paul's Gallery of Fitzpatrick Cave (Christian Co). Three stalactite pieces were matched, flagged and waiting to be rejoined at a later date. **Sept. 8th**—Treavor Bussard led two prospective members Blake Montag and Nathan Blades to Breakdown Cave and adjacent Fitzpatrick Caves (Christian Co). The group saw all of the northern half of Breakdown Cave except the Fourth Level. Biota were noted in both caves and entered into the state database. Also noted were a few spots of blue spray paint that could use additional removal work. **Sept. 10th**—Jon Beard guided Brent Wilkins and his niece Abby through Fitzpatrick and Breakdown Caves (Christian Co). For Abby, these were her first wild caves. For Brent, it was a "homecoming." It was Brent who first documented Breakdown Cave in 1979 and the first to conquer Hells Gate, a tight flowstone constricted crawlway. He revisited the room beyond that is named for him—Brent's Room. After they returned to their cars, Dillon Freiburger and a friend showed up to see Breakdown Cave. As part of what they visited, they saw Brent's Room beyond Hells Gate as well. **Sept. 11th**—Faith and Chris Lewis assisted Jon Beard in a survey day at

Carrico Cave (Dade Co). Five impressively long cross sections were made, plus about 120 feet were mapped in the northeast section of the cave to complete the mapping in the eastern half of the cave. All that remains is an unexplored side passage in the northwest part of the cave system. Also—Charley Young, his granddaughter Abby, Bill Palmer, Roy Gold, Matt Bumgardner and Bethany Bruman were part of a nine-person photo trip to the Discovery Tour section of Blanchard Springs Caverns (Ozark National Forest, AR). Also—Cynthia and Clayton Russell welcomed a gating crew consisting of Dennis Novicky, Mark Jones, Jim Cooley and a few Americorps volunteers to replace a substandard gate at the Wash Tub entrance to Three Forks Cave (Adair Co, OK). The cave is an important hibernaculum for Ozark big-eared bats (*C. townsendii ingens*), gray bats and also houses Oklahoma salamanders. The cave has been in the Russell family for several decades. **Sept. 14th**—Cynthia and Clayton Russell and Jon Beard assisted Olivia Graves and Josh Harmon in Olivia's final salamander measuring trip to Dream Cave (Ozark Co) as part of her Master's thesis field work. Biota including three species of salamander, three species of bats, etc. were added to the state cave faunal database. Also—Charley Young, Bill Palmer and Roy Gold visited Ha Ha Tonka State Park, then visited Rockbridge Memorial State Park, photographing cave entrances. **Sept. 18th**—Chris Lewis and Jon Beard briefly visited the entrance area of Garrison Cave #2 (Christian Co) so that Chris could obtain GPS readings as part of his GIS mapping of the cave's recharge area. While there, Jon conducted a bio inventory of the main entrance passage, entering the fauna into the Missouri cave database. Also—Treavor Bussard visited Indian Rockhouse Cave (AR), a popular destination in the Buffalo National River. It is the humongous shelter with large and small skylights plus an active cave stream issuing from further in. Treavor took photos of the shelter, the cave stream plus got a couple of a grotto salamander. **Sept. 23rd**—SPG's Tom Fowler, Treavor Bussard and Jon Beard participated in the installation of a new, bat-friendly gate at Streiler City Cave (Perry Co) with assistance from eastern Missouri cavers from CRF, MVG and MMV, agents from the Missouri Dept. of Conservation and public works folks from the City of Perryville. The roughly nine-by-nine foot gate was installed in about 9.5 hours by public works cutting the steel, Alicia Wallace of MCKC/MVG did the welding using a design concept by Jon. Everyone else helped to measure, carry and secure steel. **Sept. 24th**—While Brandon Van Dalsem was helping with the survey (and making some short videos) of Gegg Cave (Ste. Genevieve Co), Max White, Cheryl Paulson, Dillon Freiburger and Treavor Bussard helped with the survey of Lower Stream Annex (three survey teams led by MVG's Dan Lamping) in Berome Moore Cave (Perry Co) while Jon Beard led a group on a bio inventory trip through most of Streiler City Cave (Perry Co). After the MCKC meeting, Dillon, Brandon and Jon did some photography of helictites in the Cat Track Passage in Berome Moore Cave. **Sept. 25th**—Jon Beard with some help from Jessica Self and family briefly visited the entrance passage and first section of Formation Passage in Berome Moore Cave (Perry Co) to match 11 broken stalagmite pieces for a future rejoining trip. **Sept. 27th**—Jon Beard continued restoration in Fitzpatrick Cave (Christian Co). Three stalactite pieces were rejoined to matching pieces (combined, still without a home) and after drilling and setting with pins, four other pieces were ready to rejoin with epoxy (see Sept. 29). Cave fauna was noted and added to the cave fauna database. **Sept. 28th**—Jon and Alicia Beard visited Cob Cave (Lost Valley, AR) to do some mop-up measuring and sketching as part of CRF surveying for the National Park Service. The survey of this popular feature was begun by the late Bob Taylor. It's only a shelter cave, but it is a BIG shelter cave with lots of breakdown littering its floor. **Sept. 29th**—Jon and son Chris Beard rejoined one stalactite and prepared another for reattachment at a later date in Fitzpatrick Cave (Christian Co). The pips may already be beginning to return to the cave as part of their annual fall migration to their hibernacula. Two days ago, two pips. This day, seven.--Report by Max White, Materials provided by Jonathan B. Beard. **Oct. 1st**—Chris Lewis and Jon Beard visited the entrance environs of Garrison Cave #2 (Christian Co) to obtain 14 GPS readings with a Trimble GPS as part of Chris's GIS project. Afterwards, joined by his wife Faith Lewis, Chris made plans with Kevin Bright of Smallin Civil War Cave (Christian Co) to take readings later. Lastly, Faith, Chris and Jon visited Sequiota Park (Greene Co) to take multiple GPS readings of Sequiota Cave. **Oct. 2nd**—Strange Cave Entrances, Chapter 59: Chris Lewis's work friend's family has a property in Christian County with a cave. Chris and Jon Beard checked it out. In the east corner of a ramshackle storage shed was a hole in the wall leading into a strange "pipe" consisting of end-to-end welded barrels 18 inches in diameter totaling 35 feet. At the end was a 41-foot cave in the Pierson Formation up to five feet in height and width. Jon and Chris mapped it, photographed it and named it Twelve Barrel Cave, the 337th documented cave in the county. It ends in impassible breakdown. Also—Brandon Van

Dalsem, Dillon Freiburger and Treavor Bussard started the survey of Little Spring Cave (Barry Co) as part of CRF projects in Mark Twain National Forest. It is a cave Brandon found earlier this year. After a certain point Dillon kept pushing a low crawl. The cave may be 300 feet long when it's mapped out. **Oct. 3rd**—Jon and Alicia Beard returned to Cob Cave (AR) at Buffalo National River to do some additional mop-up sketching, hopefully the final trip before the finished map. Of interest (and photographed by Alicia) was a large, apparently well-nourished groundhog licking and nibbling some green algal growth on one of the countless limestone boulders midway into the humongous shelter cave. Photos were also taken of the nearby natural bridge. **Oct. 4th**—Jon Beard guided a Crowder College geology class on an educational field trip through Crystal Caverns (Barry Co). There were ten students plus the professor. After the class left, Jon took some photos in the cave and made some minor adjustments to the cave survey which is now complete. The cave has been leased by the MCKC for nearly 20 years. Biota noted (all within 50 feet of the entrance) included four cave salamanders, two slugs, six fishing spiders and about 15 camel crickets. **Oct. 6th**—Continuing SPG's public outreach, Melvin Johnson manned cave and bat displays at the Springfield Home School event at the Botanical Center attended by 200 participants. Also—Jon Beard completed the restoration of a stalactite in Fitzpatrick Cave (Christian Co). **Oct 8th**—Treavor Bussard led a friend through Breakdown Cave (Christian Co), then joined Jon Beard in adjacent Fitzpatrick Cave as Jon was finishing the restoration of another stalactite. Fifteen speleothem pieces have now been rejoined in Paul's Gallery. Jon returned on Oct. 11th to augment some repairs by filling in visible repair cracks with epoxy mix, to clean stalagmites and remove minor graffiti. **Oct. 9th**—Charley Young, Bill Palmer, Roy Gold and Jon Beard photographed slimy salamander mothers, eggs and newborns in Big Bear Cave (Ozark Co). Biology was recorded in this cave and adjacent Little Bear Cave. Also—Brandon Van Dalsem practiced survey sketching in the Wildcat Glades area in Joplin in Breakdown Dome Cave, an 80-foot cave. While there, he picked up a half bag of trash in this much abused little cave. **Oct. 11th**—Melvin Johnson guided the Springfield WOLF School on an educational hike at Lost Hill Natural Resource Area that included cave and karst features. **Oct. 15th- 16th**—Bill Heim and Jon Beard were among volunteers working in MCKC's Goodwin Pit Cave (Laclede Co). The emphasis the first day was installing some drainage control in the cave and enlarging the primary dig on the drain itself. The first 50 feet of cave passage is now 15-20 feet high (a narrow bellycrawl through trash in January 2012). On the second day, Jon worked on "Amy's Dig" while the drainage control apparatus installation was completed. Also—Brandon Van Dalsem and a friend visited Grand Gulf State Park (Oregon Co) that included its impressive natural bridge. **Oct. 15th**—Treavor Bussard visited Ritter Springs Park (Greene Co) with the intention of picking up trash in Junction Cave. He found only a little trash, but did conduct a bio inventory of the 329-foot dry cave. This list of biota was added to the Missouri cave fauna database. **Oct. 21st**—Eric Hertzler took two nieces and a nephew to a couple of caves on the Bridal Cave property (Camden Co) to get them muddy and also conducted bio inventories of the two caves. **Oct. 22nd**—Brandon Van Dalsem, Treavor Bussard and Jon Beard were assisted by Richard Thompson in the beginning survey of Boswell Tractor Pit Cave (Polk Co), achieving about 350 feet the first day of an estimated 1,000 feet. Richard had earlier this year gated the cave to keep trespassers and vandals out (Richard's gating experience includes Carroll Cave's vertical entrance and Sarcoxie Cave). Biota was noted, some photographs taken of this interesting cave. **Oct. 24th**—At Crystal Caverns (Barry Co) Jon Beard drew some small additions to the survey map, enhancing cross sections and the plan view. **Oct. 25th**—Jon Beard assisted Ben Miller and Katie Ingram in the survey of the Decker Caves (McDonald Co). Upper and Lower Decker are short, but the middle cave, Decker Cave, after five minutes of digging, netted big cave much to everyone's surprise. They mapped perhaps a third of it before the end of the day. Lots of walking passage and at least one large breakout dome characterize the cave after some bellycrawling and a short easy crawl in a shallow cave stream. **Oct. 28th**—Jon and Alicia Beard hiked the Indian Rockhouse trail near Buffalo Point (Arkansas) as part of their three-day weekend that included the CRF annual meeting in Harrison. Besides the Indian Rockhouse Cave, they photographed the entrances to Panther, Dripping Root and Pebble Spring caves.--Report by Max White, Material provided by Jonathan B. Beard

Lake Ozarks Grotto (LOG). Reported at the Sept. meeting - Gary Braman visited the entrances of Rock House Cave, Merritt Rock/Little Gem and Medlock Cave on the current River. Also visited were Onyx Cave on

the Niangua and Natural Tunnel for tunnel dam. He also said that 7 years ago was our grotto trip to Leman Wilson Cave, only to find the entrance had collapsed. **Sept. 21st** – Gary & Alberta Zumwalt, along with Klaus Leidenfrost, worked at Goodwin with weed eaters, clearing the tall vegetation from the fence, roadway into the sink and lunch area. **Sept. 25th** – Gary & Alberta Zumwalt attended the Fall MSS meeting in Perryville. **Sept. 26th** – Dwight & Rosie Weaver, Gary & Alberta Zumwalt attended the visitation for Paul Johnson. Other covers there were David Webster and Eugene Vale. Paul taught the Zumwalts how to map caves in the 60's and got them started with Chouteau Grotto. Dwight outlines his connection with Paul in the Remembrance article in this issue. Paul was also responsible for the Anne Johnson fund with the MSS, in honor of his late wife. He was an amazing person. **Oct. 5th** – Gary & Alberta Zumwalt took more vinyls to Goodwin and met Klaus Leidenfrost there, replacing the large vinyl in front of the entrance. **Oct. 15th** – Krista Bartel and the spooky tours at Onondaga Cave. –Alberta Zumwalt

NSS Convention - 2016 – Ely, Nevada. Lew Bicking Award – Scott House & Mick Sutton; Cartography Salon – Scott House & crew: 2 honorable mentions for Lava Beds National Monument; 1 honorable mention for Thompson Creek Cave in Shannon County. Symbolic Emblem Salon – Bryan McAllister –for Roubidoux Grotto patch – Merit/blue ribbon award and best of show. Richard Raber – honorable mention for his display of his complete collection of all the NSS Convention patches. NSS Fellows Award – Dave Hoffman and Bryan McAllister. – Lois Walsh

MSS MINUTES. The Fall 2016 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on September 25th at the Berome Moore pavilion, Lloyd and Ethel Hoff's Underground Nature Preserve, 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; Chad McCain, SEMO; Ken Grush, KCAG; Tony Schmitt, MVG; Krista Bartel, CCC; Bill Heim, OHG; Max White, SPG; Al Quamen, LEG; Doug Leer, MMV; Jon Beard, MCKC; Gary Zumwalt, LOG; Jessica Self, MSM; Dan Slais, RBX. Absent were: Craig Williams, CAIRN; Lorin O'Daniell, PEG. **Secretary's report.** Alberta Zumwalt reported that the minutes of the Spring meeting were distributed after the meeting to the Directors and Officers and were printed in the May-June issue of *MSS Liaison*. The minutes were approved. **MSS Liaison.** Gary Zumwalt reported sending out 45 paper copies and the rest as electronic copies with cash on hand of \$465.41. The next deadline is November 1st. Pres. Lamping said that he is putting the issues on the MVOR Yahoo group, Mocaves yahoo group and the MSS website. **Treasurer's Report.** Don Dunham had sent out the report electronically before the meeting and copies were distributed at the meeting. General fund \$5094.32; Photo Cave Files \$177.07; Public Relations/Web site \$71.39; *Missouri Speleology*: Subscriptions \$3299.76; Vol. 55 (2015) \$1402.00. Research Funds \$12,724.78; Anne Johnson Data Management Fund \$19,939.73. Interest checking \$84.77; Affiliation fees \$650.00; Liaison \$821.00; Total \$44,264.82. Assets: Savings bonds \$2,000.00; Interest checking \$42,264.82; Total \$44,264.82. **Missouri Speleology.** Don Dunham reported Vol. 55 for 2015, last issue of membership, is printed and available at this meeting. They are working on the North Fork river Area issue. **Affiliate Organizations.** Jon Beard said there are three organizations that have not sent in their annual report yet. He said he will be stepping down at the end of the year. Jon said that Roubidoux Grotto has fulfilled the requirements for being admitted into the MSS. Jon Beard made a motion that Roubidoux Grotto be admitted to the MSS as an affiliate organization. Seconded by Tony Schmitt. Motion passed. Pres. Lamping asked if anyone was interested in the affiliate organizations officer position. It was decided to let it ride for now. **Election of officers.** Nominations were: Dan Lamping for President and Scott House for Vice President. Motion to elect them by acclimation was seconded and passed. **Display.** Joe Light said that the St. Louis airport wants to have a Missouri cave display for 3-6 months at the airport. Pres. Lamping said he would help. **Cave files.** Scott House sent a report into the last Liaison. He said the Cave Life book, available at this meeting, was made from our work, along with the Nature Conservancy in Arkansas who put it all together. It was noted that 22 different species were seen in Streiler Cave on a trip yesterday. Scott reported there are over 25,000

faunal records, more than 9,000 when started in approximately three years. Ken Grush reported over 5000 cave mapping records and 14,000 cave reports. Every time you go to a cave, get a GPS location, faunal records and cave conditions. Send grotto reports to him, also. **Agency reports.** Scott House reported that Mark Twain National Forest and Ozark National Scenic Riverways are going well. He said CRF paid for half of the Volume 55 issue of *Missouri Speleology*. North Fork River Basin will be partially paid for by MTNF. He said work is needed on two MDC caves in Washington County. Perryville continues to be very cooperative with the Streiler City Cave gate replaced on Friday with help of cavers, the city and MDC. Stan Sides said that Jim Sherrell and he are trying to get a landowner to get on sewer line which will help with cave pollution. **Affiliate organizations project reports. Carroll Cave** – Krista Bartel reported planning for a survey trip around Christmas and New Years. She said there is a situation with ownership with the natural entrance and the silo entrance. Pres. Lamping said there are 2 more years on the lease on the back door entrance. There has been no survey trip in over a year. The cave is over 20 miles with more passage to map. **Berome Moore** – Pres. Lamping that there is some re-survey with Scott working on some data errors. Help is needed to map. Many mappers had been working at the Lime Kiln Mine at Hannibal, 21.1 miles of survey, which is now finished, allowing them to get back to Berome. **SEMO** – Chad McCain is mapping a cave in Ste. Genevieve, pushing 3.04 miles. **Others. MVG** – Tony Schmitt reported on St. Louis Parks project. He will be doing Bio over the winter again. He found a new cave. Pres. Lamping is working in Cliff Cave. **SPG** -Jon Beard has three caves that need one more trip. He will have five caves over 2000 ft. **MSM** –Jessica Self said they have been asked to build a cave room for someone in Newburg. **Public Outreach.** Pres. Lamping said he puts things on Facebook. If anyone has something to share, send it to him. Website – Pres. Lamping works regularly with putting stuff on the website. Send him content to put on or feedback. Doug Leer asked if the forms for cave reports or faunal reports were on the website. Pres. Lamping said there are general forms on the website and to let him know if he needed help with them. **Announcements.** Pres. Lamping announced the death of long-time caver and supporter of the MSS, Paul A. Johnson. He was responsible for the Anne Johnson data fund which he gave to the MSS in honor of his wife, Anne. Pres. Lamping said congratulations are in order for Scott House and Mick Sutton, who received the Lew Bicking Award from the NSS. Stan Sides said that the first MSS meeting at Berome was in 1973. Scott House announced the *Cave Life of the Ozarks* book is being sold by the NSS Biology Section through Speleobooks and is also available from the MSS store. There are also limited copies of an MSS poster for sale. **Next meeting:** January 21st, Rolla, 1 pm. Meeting adjourned.—respectfully submitted, Alberta Zumwalt, Secretary

MSS OFFICERS.

President – Dan Lamping, 4946, St. Louis, MO 63123 314-775-8584 daniellamping@att.net

Vice-President – Scott House, 1606 Luce St., Cape Girardeau, MO 63701 573-651-3782
scott_house@hotmail.com

Treasurer - Don Dunham, 147 Ron de Lee, Arnold, MO 63010. 402-203-3191 don_g_dunham@yahoo.com

Secretary - Alberta Zumwalt, 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com

MSS DIRECTORS.

CAIRN – Craig Williams, 5454 Mardel, St. Louis, MO 63109. 314-695-1012 cwilliams@cairstl.org

Chouteau – Rita Worden, 22762 Valley Dr., Jamestown, MO 65046. 573-673-3388 wordenr12323@yahoo.com

CCC – Krista Bartel, 625 Armour Blvd 3E, Kansas City, MO 64109. 816-812-5206. Kbartel1088@gmail.com

KCAG – Ken Grush, 32 Circle View Dr., Fenton, MO 63026. 636-600-0369 slagrush@gmail.com

LOG – Gary Zumwalt, 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com

LEG – Al Quamen, P.O. Box 292, Carbondale, IL 62903. 618-549-2550 carbide@globaleyes.net

MCKC – Jon Beard, 923 E. Guinevere Ct., Springfield, MO 65807-3720. 417-887-7231 Mokanman@att.net

MMV – Doug Leer, 730 Lakeshore Meadow Dr., Wildwood, MO 63038. 636-207-8468 dogleer@gmail.com

MSM – Jessica Self, 521 Keeton Rd., Rolla, MO 65401. 573-587-2794 Gneiss.self@yahoo.com
MVG – Tony Schmitt, 1227 Perdiz Ln., Fenton, MO 63026. 314-482-0516 Tonymarn2601@yahoo.com
OHG – Bill Heim, 2025 W. FR 178, Springfield, MO 65810. 417-889-0640(H), build_it1@juno.com
PEG – Lorin O’Daniell, 4515 Faraon-Apt. F, St. Joseph, MO 64506. 816-646-3240 lodaniell@yahoo.com
RBD - Dan Slais, 2384 Tea Road, Rosebud, MO 63091. 573-764-2406 dslais@fidnet.com
SEMO – Chad McCain, 6676 Ike Dr., Barnhart, MO 63012. 573-513-5785 chads93GT@hotmail.com
SPG – Max White, 2748 W. Maplewood, Springfield, MO 65807. 417-880-8475 bildmwc@aol.com

ADDRESSES.

Affiliate Organizations – Jon Beard 923 E. Guinevere Ct., Springfield, MO 65807-3720. 417-887-7231 Mokanman@att.net

Missouri Speleology Circulation Manager- Bill Pfantz – Wmpfantz@aol.com

MSS Liaison editor - Gary Zumwalt 1681 State Route D, Lohman, MO 65053. 573-782-3560 Gzumw@aol.com

MSS store - Don Dunham, 147 Ron de Lee, Arnold, MO 63010. 402-203-3191 don_g_dunham@yahoo.com

Research committee - Jerry Vineyard, Ozark Riverview Manor, 1200 W. Hall St., Ozark, MO 65721 JelenVnyrd@aol.com Other members – Oz Hawksley, Dwight Weaver, and David Ashley.

Historian-Dwight Weaver – 38 Village Marina Rd., Eldon, MO 65026. 573-365-1171 dwightweaver@charter.net

Cave Files - Scott House, 1606 Luce St., Cape Girardeau, MO 63701. 573-651-3782 scott_house@hotmail.com

MSS web site –www.mospeleo.org

Ozark Caving web site– www.ozarkcaving.com

Carroll Cave Conservancy website http://www.carrollcave.org

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

MSS annual reports were due at the Winter 2016 meeting. Reports have not been turned in by: CCC, MMV, MSM, & MVG. Please get them to Jon Beard as soon as possible.

CALENDAR:

Dec. 3rd – Next Goodwin work day. Contact Klaus Leidenfrost if interested in working: klausl@fidnet.com

Jan. 1st, 2017 - Next Liaison deadline.

Jan. 21st, 2017 – Winter MSS meeting, 1 pm, DGLs Annex Bldg, 111 Fairgrounds Rd., Rolla, MO.

FIRST CLASS

MSS Liaison
Gary Zumwalt
1681 State Route D
Lohman, MO 65053

