

# THE MSS LIAISON

VOLUME 55 NUMBER 9-10

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## AFFILIATE ORGANIZATIONS:

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

Subscription rate is \$10.00 per year, send check or money order to the Editor, Gary Zumwalt, 1681 State Route D, Lohman, MO 65053. Telephone: 573-782-3560.



**MSS MINUTES.** The Fall 2015 Board meeting of the Missouri Speleological Survey was called to order by President Dan Lamping on September 27th, 2015 at the pavilion at Berome Moore Cave, Perry Co., MO.

**Introduction of Officers:** Dan Lamping, President; Don Dunham, Treasurer; Alberta Zumwalt, Secretary. Absent was Scott House, Vice-President. **Roll Call of Directors:** Ken Grush (proxy for Jim Cooley), KCAG; Jon Beard, MCKC; Jessica Self, MSM; Lorin O'Daniell, PEG; Alicia Wallace (proxy for Tony Schmitt), MVG; Rita Worden, Chouteau; Bill Heim, OHG; Jim Sherrell (proxy for Doug Leer), MMV; Max White, SPG; Krista Bartel, CCC; Gary Zumwalt, LOG; Al Quamen, LEG; Craig Williams, CAIRN; Absent was SEMO. **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 handed out today, also. The minutes were approved. **MSS Liaison.** Gary Zumwalt reported sending out 62 paper copies and 73 electronic copies with cash on hand of \$74.93. The next deadline is Oct. 30<sup>th</sup>. **Treasurer's Report.** Don Dunham had sent out the report electronically before the meeting and copies were distributed at the meeting. General fund \$4703.15; Membership: (2015) \$1852.00; (2016-2022) \$1028.00. Photo Cave Files \$177.07; Public Relations/Web site \$71.39; *Missouri Speleology*: Vol. 53 (2013) \$1575.00; Vol. 54 (2014) \$1733.00; Vol. 55 (2015) \$60.00. Back Issues \$36.82; Research Funds \$12,724.78; Anne Johnson Data Management Fund \$20,016.18. Interest checking \$73.42; Liaison affiliation fees \$325.00; Liaison \$453.00; Total \$44,828.81. Assets: Savings bonds \$2,000.00; Interest checking \$42,828.81; Total \$44,828.81. **Missouri Speleology.** Don Dunham reported that Vol. 53 History of the MSS by Dan Lamping is printed and available. Cost is \$8.00. Mick Sutton's "Biology of Crevice Cave (Vol. 54 – 2014) should be ready at the winter meeting. **Affiliate Organizations.** Jon Beard reported there is still one organization that needs to submit their annual report. Dan Slais, representing Roubidoux Grotto, said they are interested in joining the MSS. Jon will get with him after the meeting. **Membership proposal.** Don Dunham handed out a paper detailing the proposed membership changes. Pres. Lamping addressed questions on the proposal which would do away with individual memberships. *Missouri Speleology* would be paid per issue. *Liaison* would be free online, paper copies available by subscription. After some discussion, Jon Beard made a motion to accept the membership proposal, seconded by Alicia Wallace. Motion passed unanimously. **Reappointment of Treasurer.** Pres. Lamping reappointed Don Dunham as Treasure. Al Quamen made a motion to accept the appointment, seconded and passed. **Missouri Speleology.** Pres. Lamping addressed putting issues online. What issues should be online and how long to wait before an issue goes online. Al Quamen said it would vary with the issues and that anything that sells should not be put online. Don Dunham said Onondaga State Park bought 100 copies of the Onondaga issue. Pres. Lamping said they sold old issues at the NSS Convention for \$1.00 each and netted about \$200 which included some hats, etc. Some discussion of putting the issues on CD. Alicia Wallace said that they are making a lot of computers without a CD drive. Ken Grush said flash drives would probably be better. **Cave Files/Database.** Pres. Lamping said there is increased participation. More Filemaker Pro copies going out. He said Scott House puts in a tremendous amount of time and work into the files. Jim Sherrell asked about Filemaker Pro. Pres. Lamping said he can put material in

Filemaker, then export files to Scott. Jim suggested putting an article in *Liaison* on how to cooperate easier and how to submit material to Scott. Ken Grush said that with Filemaker, more people can enter info. Jim asked about text. Ken said word documents with simple text work best. **MoCaves.** Some discussion that it might be coming to an end. It was going to be turned over to the NSS but hasn't happened yet and may not happen. Alicia Wallace said she would rather see it on a Yahoo group. **New Caves/cave maps/reports.** Pres. Lamping reported almost 7000 caves. Ken Grush said the recent report in *Liaison* is the best source of info. He said there are 4300 maps with some caves having multiple maps. Berome is in 4 parts – not all on one map. Trying to consolidate maps. Pres. Lamping said that we are managing cave map submissions, no longer done by DNR. **Agency reports.** Mark Twain – Jessica Self said they have 3 new caves and trips set up through middle of January. Craig Williams said they checked out sites that have lots of digging. Ozark National Scenic Riverways – Pres. Lamping said there are new people working it and mapping. He suggested that the Spring 2016 MSS meeting be held there. MDC – Jon Beard said Smittle Cave was closed for several years. They've been there 2 times this year, seeing no extensive evidence of people breaching the gate. Lots of critters. He went with Shelly and Rhonda of MDC to Lowell Cave, across from Smittle. Longer than was thought – now have 5000 ft. surveyed, starting out small and gets larger. May finish survey end of next month. Pres. Lamping said CRF is surveying over a mile of cave on the Current River. Lake Ozarks State Park – Pres. Lamping said Jim Cooley found new caves. Ken Grush said Coakley Springs is graveled up, 1500 ft. of cave lost and no longer accessible. Devil's Icebox – Rita Worden did a Bio count, which is only done in the spring and fall. She said it needs a good map. Carthage Battle site – Jon Beard said they lost a few caves since several were joined. He will be working in Roaring River State Park. Pres. Lamping said Scott House gave a program during the NSS Convention on the MO cave data base during the working with agencies session. Jim Sherrell reported that MMV and SEMO are working with DNR on Valle Mines and told the history of the mines. There are multiple entrances and could be the longest cave in Missouri. DNR is dropping cameras and are not allowed to enter. The cavers are doing vertical work to check them. Dead shafts are being filled in and putting a benchmark there, saying what it is. They have filled 7 or 8 so far. Cultural artifacts are noted – cultural or biological significance, they will be gated. **Project reports.** Carroll Cave – Krista Bartel reported some mapping. Pres. Lamping said they took several hundred people in during the NSS convention. Washington University printed out 11 sheets of map for convention. Jon Beard said the maps were longer than some caves he has visited. Pres. Lamping said a trip back to DL7 netted a small amount of map for 2 ½ days. Total mapped 20.17 with an estimate of 22 miles unless more cave is found. Krista said she will host an event next fall. Berome Moore - Don Dunham reported on a trip with a Nature Conservancy biologist and finding a new site for grotto sculpin. MMV and MDC have an agreement to study sculpin in Berome. Other – Jon Beard reported that Fitzpatrick was gated last year and working on reclamation. Spray paint is gone. **Announcements.** Pres. Lamping thanked MMV and MCKC. He thanked Don Dunham for cooking. Pres. Lamping said the MSS memberships will continue until January 2016 and encouraged people to continue to pay dues for 2015. Those memberships will receive Vol. 55 of *Missouri Speleology* and *Liaison*. It was mentioned that many Missouri cavers got awards at the NSS Convention, printed in the last *Liaison*. Max White said that Jerry Vineyard suggested more info on people who are doing the work in caves. Jon Beard said that back to the 1950's, there are no records on a lot of the people that did work in the caves. He said we need to write about these people. **Next meeting.** January 23<sup>rd</sup>, 1 p.m., Rolla. Alicia Wallace said the MCKC meeting will be at 9 a.m. Meeting adjourned. –respectfully submitted, Alberta Zumwalt, Secretary.

**MSS Membership Changes 2016.** Currently MSS membership is obtained by paying annual dues, \$25 for individuals and \$27 for families. The proposed changes would eliminate membership dues, allowing anyone to be involved with the organization. The question that has often been asked of the officers is how the MSS will remain financially viable without the income stream derived from annual dues. **Today nearly** all of the dues are earmarked for publications. For those who pay \$25/year, \$8 goes toward *Liaison* and \$17 toward *MoSpeleo*. For those who pay \$27 the extra \$2 goes into the General Fund. Therefore, most of the funds in the MSS currently have no income stream, such as Research, Computer Cave Files, etc. These funds have received most of their money from contributions. Because there are few family dues-paying members, the General Fund receives less than \$20/year. The bottom line is that, except for the few dollars that go into the General

Fund, all dues are used to print publications. **By discontinuing dues**, the MSS would not discontinue publishing *Liaison* or *MoSpeleo*. *Liaison* is currently available electronically and it would be our intent to simply make it available on the website. All of this would be at no cost. If there are members who still prefer to have a copy printed and mailed to them, they will have an opportunity to subscribe to *Liaison* for \$10/yr. Of course, if they want a paper copy, they can simply download it and print it at home. As for *MoSpeleo*, the MSS will no longer print a large excess number of copies as we have in the past. This was done with the idea in mind that we could generate additional income, but the extra sales, with the exception of a few issues, have not been realized leaving us with unnecessary expenditures, and a substantial stock of past issues, some decades old. Instead, the MSS will print smaller runs of *MoSpeleo* making them available for sale. Should the need arise to print more of any given issue, it will be easy to do as we simply need to submit the original PDF to the printer. Therefore, unlike today's model, there will be no large outlay of money for future issues. **In addition**, because each *MoSpeleo* has always been tied to a particular year, this model has, for decades, caused problems, since we have fallen behind in publishing. Even though the MSS has nearly caught up, there is always a chance that publishing could fall behind again. By no longer being tied to the calendar or an annual budget, *MoSpeleo* can now be published as material becomes available. **For those** who have paid dues for future years, the MSS will keep their money in an account that will automatically pay for future *MoSpeleos* as they are published. Should a member prefer not to have their money held in an account, they may ask to have their future dues refunded.

**Remembering Ken Thomson.** Shown here are two photographs taken of what was once 908 E. Edgewood,



Springfield, MO 65807. This was the home of Ken Thomson and his family for many years. It seems strange to think that Ken and wife Edda May passed away 11 years ago. After their untimely deaths, their house was emptied of its contents and sold. A few years later, it was demolished, and rather than another home replacing it, the city bought it and used it to improve storm drainage in the neighborhood. The pictures attached were taken Sept. 3, 2015 as Alicia and I walked our daily two miles around the neighborhood. For the past 28 years, Alicia and I have lived just a few blocks upstream (due south) of 908 E. Edgewood. Water draining from our property now flows through the storm drain that was once the

Thomson home. The only remaining evidence of their home are the remnant of the driveway entrance and the trees that grew in the front yard. **I knew Ken** for 24 years, and it was Ken who introduced me to organized



caving in the spring of 1980. It was his speleology course that was my first class at what is now Missouri State University. Ken began using Breakdown Cave as one of the field trips in his class, allowing me to be guest lecturer for the trips, a practice that continues to this day as Doug Gouzie, Ken's replacement, keeps Ken's legacy going. I enjoy discussing the cave with every class of students brought to the cave. **As many of us know**, Ken was not only a professor, he was a professional geologic consultant. He mapped the geology for dozens of topo map areas in southwest Missouri and was contracted to do the "geologicals" for properties in which construction plans were made. He gave me opportunities to

map caves on some of these properties (for examples, Jones Cave of Taney County and Gravelle Pit of Greene County) as a "sub-contractor" where OHG was paid handsomely for the work. From 1968 into the early 1990s, Ken mapped dozens of caves in southwest Missouri including a few of the area's longest. Many might remember Ken as MSS President from 1987 to 2000. As a consultant, he played an important role in the adoption of Greene County's sinkhole ordinance that protects sinks from man's developments. **There has been** no equal in southwest Missouri. No southwest Missouri geologist has had such a profound effect in Missouri speleology. The void left by his absence has not been filled and may not ever be. **I realize this** as I live my 64<sup>th</sup> year, the age at which Ken passed away. Ken's remains are buried elsewhere, but 908 E.

Edgewood remains a local neighborhood memorial. Every time Alicia and I walk by, I look over at the property and reminisce about the evenings talking caves with Ken in his basement office, just a short walk from our house to his.--Jonathan Beard

**Chouteau Grotto. Sept 19<sup>th</sup>** - Pin Oak Cave, Lake Ozark State Park. Rita Worden, along with fellow surveyors Dennis Novicky, Alex Roberts and Jim Cooley, went to Pin Oak Cave in Lake Ozark State Park with the objective of completing the survey on this the fourth attempt. This cave has two or three entrances in a dry hollow and quickly becomes hands and knees and then a slithering tube of mostly mud with little mercy. 584ft of survey had already been done and this trip netted another 60ft +. **The survey team** entered the cave at about 11:15am, leaving Cooley at the entrance for safety. After finding the end of the survey thus far, Worden reversed position in the tube to be able to perform lead tape and backsights. After three shots the team came to some deeper, stew-like mud in this conduit of consternation, and upon backing into it Worden found herself nearly unable to breathe due to an overpowering stench of death. She probably disturbed an animal carcass under the muck and released a significant amount of gas from same, but she refused to go further. With the airflow going 'in' the cave, the others were not so disturbed and elected to continue the survey with Worden's instruments. Rearrangements were difficult but Alex's flexibility and determination soon had the survey making progress again. Worden then exited the cave alone, finding some curious hatchlings along the way. **Novicky** and Roberts "continued the survey with great difficulty...they reported that crawling at any speed through the sticky, "odoriferous" soup caused a bulge of brown goo to swell up and propagate ahead of the caver 'like a tsunami.'" After having completed several more stations, survey instruments were so befouled that they were useless, and without enough room they loathed to open their Swaygo packs for cleaning materials as this would surely fill them with the putrid muck that they lay in. So they made their way out and at about 5pm Worden and Cooley received them with astonishment at the condition they were in, having abandoned their mud-filled helmets and signifying their species by form only, and the whites of their eyes. Somewhere in the big slime they had lost Worden's survey instruments. **During their time** in the cave the surveyors noted four cave salamanders, one dark-sided salamander, one pickerel frog, and seven juvenile salamanders. We then went for a much needed swim in the warm waters of the Lake, saved some rednecks with a dead battery, ate a fine meal in Osage Beach and headed home to the comfort of shower and bed. **Sept 20<sup>th</sup>** - Devil's Icebox Cave, Rock Bridge State Park. Rita Worden participated in a semiannual biological survey of designated areas of stream bed in Devil's Icebox Cave. Roxie Campbell, park naturalist, had organized the trip and supervised all activities including the data collection. Nine participated in all, and the half-mile canoe float went well and without incident. Several Indiana bats were seen flying just beyond the twilight zone. Worden was on a team with Campbell, a fellow named Steve, and another park naturalist from northern Missouri. The team of four first measured guano piles in the gray bat nursery, results showing a normal amount for the season. There were also no dead bats seen anywhere, even in the bat room. **We then** headed to the Big Room for the first count of life in the stream bed and found an unusually high number of amphipods and isopods. Counting was also done at the Shark, and at 1940-R. The cave was beautiful, almost looking virgin, having been left to the sculpting of water since the spring. The other team had gone further into the cave and performed timed counts. Altogether, 8 pink planarians were found and 3 of their egg cases. Roxie said the amphipods and isopods were more numerous than ever and she hopes this will help boost the planarian population, as that is their food source. There was a serious decline in those prey species in 2009. We all exited the cave together and without incident, cleaned the boats and other gear and headed home. -- Rita Worden

**Roubidoux Grotto (RBX).** Since we are a new grotto, this is our first submission to the *Liaison*. At the NSS Convention, Karen Hood (NSS Convention Publicity Vice Chair) first had the idea to form a new grotto. Several other Committee members and friends agreed that a new grotto, based in Pulaski County, was needed to keep the teamwork and momentum going. At convention she and Ron Jones met with Keith Wheeland (NSS IO Committee Chair). For about a month the fledgling grotto had no name, then Ron suggested "Roubidoux Grotto." **August 24<sup>th</sup>** - A grotto formation meeting was held in St. Robert at Pulaski County Tourism Bureau. Constitution, Bylaws and other required documents were approved. Grotto officers were elected: Ron Jones (Chair), Karen Hood (Vice Chair), and Laura Huffman (Secretary / Treasurer). The following signed the NSS

application as charter members: Ronald H. Jones, Daniel J. Slais, Karen Hood, Michael R. Jackson, Laura Huffman, Kristin Nicolussi, and Andy Free. **August 31st** - The NSS approved the Grotto's application and chartered it as Chapter #478. **Sept 10th** - Ron Jones, Kris Nicolussi and Chris Doerhoff participated in the Community Information Expo at Fort Leonard Wood, using the MCKC display. They talked to several prospective members and cave owners. **Sept 14<sup>th</sup>** - Dan Slais visited with two people at the mouth of gated Arrow Point Cave (MIL-040) in Miller Co. and discussed the cave's history and future. **Sept 15<sup>th</sup>** - Dan Slais located and obtained GPS position of the 'Roubidoux Quadarches' on the Roubidoux Creek in Texas County. Information was sent to Ken Grush. The first monthly meeting was held at Pulaski County Tourism, and upcoming trips were discussed. **Sept 26<sup>th</sup>** - Ron led the first trip to Campground Cave, (PUL-016) with Karen Hood, Ryan Thompson and Marc Briner. The back is wet with actively growing soda straws and helictites. A couple pipistrelle bats were roosting in ceiling pockets, and one was decaying on the floor. The mud banks had a great quantity of raccoon claw marks, and decaying raccoon scat was found with seeds still visible. We also saw a couple partially eaten frogs -- one with internal organs spilling out in the stream!—Dan Slais



**LOG. Sept. 27<sup>th</sup>** - Ken Long attended Dam Days with a Goodwin display and collected donations. **Oct. 2-4 - Dwight** Weaver, Gary & Alberta Zumwalt were some of the "old timers" who were honored at the Fall MVOR. **Oct. 15<sup>th</sup>** - Klaus Leidenfrost and Ken Long downloaded the cameras and changed the batteries at Goodwin. **Lois** Walsh brought some people who were at the MO State Parks Assoc. to see the sink. **Spring MVOR** will be hosted by MCKC on Jason Synder's property, a former member of LOG. It will feature Goodwin Sink and hopefully, more progress will be made during that weekend. **Morgan Co. project** - Cliff Gill and Jarrett Ellis are working on reviving this project. **LOG website** - Ken Long said we are only getting 10-12 hits per week and encouraged members to promote it. -Alberta Zumwalt

**MSM. Sept 3<sup>rd</sup>** - We had our new members meeting to start the fall semester. We had just under 100 people attend the meeting, and as of the end of October, we have retained about 35-40 members that attend the meetings on Wednesday nights. **Sept. 5<sup>th</sup> - 6<sup>th</sup>** - Trip leader: Alex Litsch. Caves visited: Rattlesnake, Spencer and Perkins. All three trips were full and successful. Trash was found in the entrance of Rattlesnake; a trip is planned to return for clean-up. **Sept. 12<sup>th</sup> - 13<sup>th</sup>** - Garrett Wood went to St. Thomas, MO to help survey Gooseberry Cave with Krista Bartel. New members visited Tunnel Spring Cave, trip was full this weekend as well. Forest Service work was done by Alex Litsch, Sven Olberg, Andy Free, and Allie Free in Pulaski County. Three new caves were reported on this trip. A separate Forest Service Trip was led by Jessica Self, accompanied by 9 MSM members. Work was done to bio-inventory Lane Spring Cave, and two other caves in the park. A grotto salamander was reported in Lane Spring Cave. **Sept. 26<sup>th</sup> - 27<sup>th</sup>** - MSM meeting -Alex went caving in the city of Perryville, Jessica Self attended the Sunday meeting. Sunday evening, Alex led a vertical workshop in Devil's Elbow, MO and 15 MSM members attended. **Oct. 3<sup>rd</sup> - 4<sup>th</sup>** - MVOR in Steelville, MO. Alex Litsch, Jeremy Weih, Ben Sullins, and Jessica Self camped across the river, via canoes, as camp sites were full. Memories were made. Forestry work was done on Saturday, led by Garret Wood, accompanied by Amanda McDuffie in Phelps County to check the gate on Onyx cave, and check on three other neighboring caves. No signs of trespassing were found. **Oct. 17<sup>th</sup>** - Spooky tours were given in Onondaga Cave. MSM members dressed in creative costumes, like clowns, zombies, lost cavers, a grass man (MoMo), and a scary guy in a cage that followed tourists. Many screams filled the cave. Volunteers included Alex Litsch, Noah, Micca Nevins, Jacob Staniszewski, Jessica Self, Olyvia Self, Owyn Self, Nathan and Rebecca. **Oct. 24<sup>th</sup> - 25<sup>th</sup>** - Forest Service work on Sunday Led by Spike Crews, accompanied by Isi Crews. They did bio inventory and verified Dead Coon Cave, Little Dome Cave, Southwest Annex, and North Hollow in Phelps County. Forest Service work was done on Sunday, led by Jessica Self, accompanied by Garrett Wood, Ben Maples, and Olyvia Self. Bio inventory was done. No life was found. However, evidence of birds using the cave was prevalent, and one small area of guano was found. Heavy traffic is evident here. Three bags of trash were hauled out. A trip to two caves (Peninsula & Angus) on Fort Leonard wood was led by Andy Free, accompanied by Allie Free, Laura Huffman, Kathy, Noah, and Jackson. It has been a very busy and eventful semester here in Rolla. We have many new, motivated cavers. Welcome! --Jessica Self

**CCC. July 11<sup>st</sup>** -NSS tourist trip. Project manager/trip Report: Bill Gee. Visited: Carroll Passage. Participants: Bill Gee, Forrest Wilson, Kerry Rowland, Kira Rowland, Cliff Gill, Walt??? Entry: 11:15am. Exit: 3pm. This trip was originally planned to be a long, mongo trip to the far reaches of Upper Thunder River. That plan was quickly changed after finding that Thunder River was running about 20 feet above normal level. We decided to make this a regular tourist trip to the Rimstone Room, collecting data from the stream level data loggers along the way. The entire morning of trips, did not go off as planned. Rick Hines' photo trip got a very late start, my trip was changed to plan B (and later plan C!) by the elevated river level. Yet another trip was canceled due to lack of participants. We finally decided how our trip was going to go about 10:45. Everyone geared up and went down the shaft. We followed very close on the heels of Rick Hines' photo trip. Our entire team was in the cave by about 11:45. I downloaded data from the barometric pressure logger. Everyone looked at the stream level. The stream was ponded with no visible flow. It was up to the bottom part of both rock bridges that lead out of the landing area. Forrest estimated visibility in the water at about 3 feet. We slowly made our way down Carroll Passage, admiring the formations and generally just taking it easy. We passed Rick's group while they were taking pictures in a side alcove. At the Rimstone Room I downloaded the Carroll River data logger. We went on to look at the rimstone formations, then through the stoop walk to the beginning of the Water Barrier. The Water Barrier was about 6 or 8 inches higher than normal, but still passable. As we were returning through the Rimstone Room we met Rick's photo group. We relayed information about the water level, then continued on back to the ladder. The water level in the rest of Carroll Passage was also higher than normal. At the Bear Claw Passage the stream was running about 6 or 7 feet wide where it is normally only a foot wide. It was not deep-no more than a few inches-but definitely higher than normal. The shortcuts over to Thunder Falls were completely sumped, and water from them was flowing through some rocks into the Carroll river headwater pond. Thunder River was probably as high as it can get. If it gets any higher, the excess just flows over into Carroll River. It will be very interesting to see the data once I can reach the loggers for a download. At the ladder Kerry and Kira decided to climb on out. The rest of us went on to the Angel Pool passage. As it turns out, there is a shelf along the ceiling which provides access to the passage. We went to the formation area, talked for a bit and then came back. We were all out of the cave by 3pm. **Oct. 26<sup>th</sup>** – **Annual Bat Census.** Carroll Passage. Participants: Bill Gee, Meghan Gallo, Derek Thompson, Rita Worden, Cliff Gill, and Ben Perkins. Entry: 10:15am. Exit: 7:45pm. Everyone was in the cave by 10:30. We saw several live ring-neck snakes at the bottom of the ladder. There were several dead snakes and one dead mouse. The snakes were 25-35cm long. When we climbed back out, Derek up the live snakes in a plastic jar and carried them to the surface for release. We made good time to the Water Barrier. We did the usual isopod count and measure at the first black rock riffle. From there we proceeded to document the state of the guano gauges. We arrived at the Lunch room just about noon. After a snack break we began the bat census. Several of our count areas had zero bats, which I have never seen before. There were three sections with good populations of grey bats, perhaps 600-1000 individuals in each. We saw very few eastern tri-color bats. Near the Mountain Room we saw a sculpin very much alive, and right at the Mountain Room we saw an accidental crayfish. We arrived at the Mountain room about 3:30pm. Everyone had a hot meal. We explored both sides of the Mountain Room including some side chambers. It was about 5:00 when we left for the trip back. The return trip went very fast, taking us less than two hours. We had plenty of time, so we went over to Thunder Falls for a few minutes. Ben, Meghan and Derek had never seen it. Back at the ladder we geared up and climbed. Everyone was out of the cave by 7:45. – Krista Bartel.

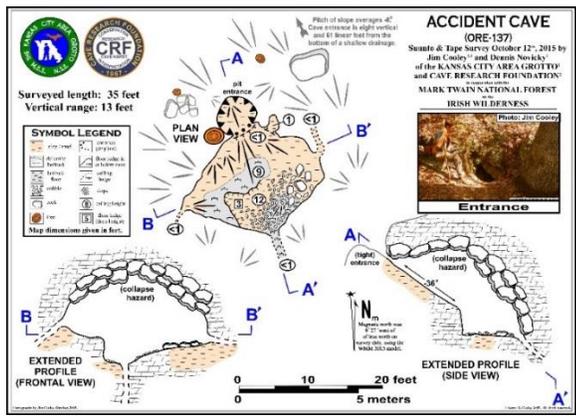
**SPG. Sept. 2<sup>nd</sup>**- Roy Gold assisted Jon Beard in obtaining cross sections and ceiling heights along the entire length of the upper level in Lowell Cave (Wright Co) as part of a CRF project in the cave. One of a number of caves located in the Fuson Conservation Area, the survey was begun in 1970 by the late Bob Taylor. Afterwards, Jon checked the lock on the gate at Smittle Cave nearby to make sure the lock would unlock in preparation of a bio monitoring trip scheduled later in the month. **Sept. 5<sup>th</sup>-6<sup>th</sup>**-Max White, Jim Cooley and Jon Beard joined KCAG members and other cavers in a weekend of mapping and camaraderie in Allie Spring Cave (Pulaski Co). Others contributing to the weekend were Rita Worden, Shawn Williams, Joe Williams, Dennis Novicky, Alex Litsch, Ken Grush, Brenda Goodnight and Bill Gee. There were three survey teams on both days. **Sept. 5<sup>th</sup>**- Matt Bumgardner joined others in a long trip into Little Bear Cave (Arkansas) which has a lot of

crawling between large passages and decorated rooms. Some of the challenging constrictions are known as the Pocket Snatcher, Auger and Pancakes. **Sept. 7<sup>th</sup>**—Jon Beard and Boy Scout troop 210 from Springfield conducted flowstone cleaning in the lower level of Fitzpatrick Cave (Christian Co) as part of the restoration of the cave since its 2014 gating. **Sept. 12<sup>th</sup>**—Sarah, Jeff, Charley and Abby Young, Max White, Brandon Van Dalsem, Bill Palmer, Roy Gold, Matt Bumgardner and friend Bethany and Jon Beard were joined by MDC's Rhonda Rimer, Kevin Hedgpeth and Shelly Colatskie in a monitoring visit to Smittle Cave (Wright co) as part of a CRF project in the Fuson Conservation Area. One team consisting of Bill, Roy, Matt, Bethany and Shelly monitored and photographed the entrance passage and some of its side passages while the others monitored and photographed the lengthy Water Passage, Color Rooms, Dingle Way, Waterfall Room and Beyond the Waterfall Passage. A few salamanders were swabbed to determine if any had signs of the Chytrid fungus that is plaguing amphibians in Missouri. **Sept. 12<sup>th</sup>-13<sup>th</sup>**—Melvin Johnson manned the SPG booth, alongside the Missouri Bat Census booth manned by Kirsten Mudd, at the annual Bass Pro Outdoors Days held this year at Table Rock Dam and adjacent spots in the Branson area. On Sunday, Melvin was joined by Jon Beard, Matt Bumgardner and friend Bethany. Over the weekend more than 7,000 visitors were treated to various venues. **Sept. 15<sup>th</sup>**—Jon Beard led a group of five from Kansas City on an educational field trip through Crystal Caverns (Barry Co). While there, Jon counted four cave salamanders and a pickerel frog inside the cave. **Sept. 16<sup>th</sup>**—Jon Beard led the new owners Paul and Joan Thompson through Peter Cave (Ozark Co) to familiarize them with the cave, its features, etc. **Sept. 20<sup>th</sup>**—Brandon Van Dalsem, Matt Bumgardner and friend Bethany Bruman assisted Jon Beard in the continuing survey of MDC's Lowell Cave (Wright co) as part of the CRF project there. The survey is approaching 5,000 feet at this point. Biota noted were six pips, one northern bat, two grotto salamanders, two larval salamanders, a cave salamander and thirteen pickerel frogs. **Sept. 22<sup>nd</sup>**—Brandon Van Dalsem and Jon Beard continued the survey of the back portions of Lowell Cave (Wright Co), amassing about 300 additional feet of passage averaging more than 20 feet in diameter. Biota noted were seven pips, one northern bat, four grotto salamanders, four larval salamanders, a cave salamander and 76 pickerel frogs. **Sept. 25<sup>th</sup>-26<sup>th</sup>**—Brandon Van Dalsem, Marc Levin and Jon Beard were joined by Caleb Schlager in photography in Cat Track, Coon, Formation and Gypsum passages in Berome Moore Cave (Perry Co). Two salamanders were photographed that were two inches long, terrestrial (i.e. no fins, no gills, on dry land), entirely purple including belly with irregular yellow spots on back and legs. Three stalagmite pieces and six column pieces were rejoined with epoxy. Jon acted as instructor, "students" Laura Belarbi, James Sherrell Jr., Marc Levin and Jamela Charmaine performed the tasks and Brandon photographed the process. **Sept. 29<sup>th</sup>**—Brandon Van Dalsem and Jon Beard continued the survey of the Right Fork in the furthest recesses of Lowell Cave (Wright Co), passing the 5,000-foot mark. One more survey trip ought to finish the Right Fork, leaving only the Left Fork remaining to complete the survey. A few bats, salamanders and frogs were noted. **Oct. 1<sup>st</sup>**—After seeing Fitzpatrick Cave (Christian Co), Brandon Van Dalsem and Corey McCraney were just the fourth group to ever lay eyes on nearby Breakdown Cave's (Christian Co) elusive Drapery Dome, a 50-foot tall dome with a 40-foot flowstone drapery. The Drapery Dome is normally isolated by a nearly consistent sump. This was after they saw some of the northern side passages of the cave. In the caves they saw a slimy salamander and eight cave salamanders as well as a few pips. Also—In the morning, Tom Morton, Melvin Johnson and Jon Beard manned side-by-side information booths at the annual Home-schoolers Fair attended by a few hundred students and their parents. They answered questions about caves and snakes and other critters while a slide show looped nearby teaching students about cave conservation. Then in the evening, Melvin Johnson, Doug Gouzie and Jon Beard presented consecutive programs on WNS, cave hydrology and cave species adaptation to Missouri Master Naturalists at the Southwest Regional MDC office. **Oct 3<sup>rd</sup>**—Bill Heim and Jon Beard briefly visited and photographed Fishing Spring Cave (Crawford Co) on a kayak trip down a stretch of the Meramec River during the Fall 2015 MVOR held near Steelville, MO. **Oct 6<sup>th</sup>**—Brandon Van Dalsem and Jon Beard mapped 508 feet of Lowell Cave (Wright Co) to complete the survey of the Right Fork. The cave is now officially over one mile in length with the Left Fork remaining to be mapped. SPG has been mapping the cave on behalf of the CRF project work for the Missouri Dept. of Conservation. **Oct 10<sup>th</sup>**—Brandon Van Dalsem, Marc Levin and Jon Beard assisted MSU grad student Olivia Graves in the beginning of a 12-month salamander study to determine differences in salamander populations in rural vs. urban cave environments. This day's cave, Dream Cave (Ozark Co), more than 30 salamanders (four species) were collected, measured and marked with subtle dye

patterns and released for potential recapture each month. The four also counted bats, finding 460 (13 of which were northern long-eared, the remainder were pips). Also noted were isopods, amphipods, camel crickets, one large spider, and small black beetles. **Oct 14<sup>th</sup>**—Marc Levin and Jon Beard clean a few dozen speleothem pieces in the Paul's Gallery of Fitzpatrick Cave (Christian co), finding four "matches" that will be rejoined on a future trip. This is an ongoing restoration project. **Oct 15<sup>th</sup>**—Brandon Van Dalsem and Jon Beard began the survey of the Left Fork in Lowell Cave (Wright Co), extending the mapping of the cave by 408 feet. The end of the cave is near (the light at the end of the tunnel, however dim at this point, can be seen). **Oct 17<sup>th</sup>–18<sup>th</sup>** —Brandon Van Dalsem, Matt Bumgardner, Bethany Bruman and Jon Beard ridgewalked the fall foliage in Mark Twain National Forest in Barry County in search of undocumented caves. They documented and mapped Discomfort Cave and Sifter Shelter, mapped Visor Cave (documented last year) and mapped Horseshoe Cave (which actually had an old rusty horseshoe in it). Only the latter cave had macro biology: two cave salamanders, four spiders, 30 camel crickets and three pesky and undesirable yellowjackets. **Oct. 19<sup>th</sup>**—In preparation of a future trip, Jon Beard checked and oiled the gate lock at Garrison Cave #2 (Christian Co). Due to the lengthy dry spell, the water level of the First Watercrawl was low enough that the Thompson siphon system to lower the water level was not needed. While there, Jon counted two transient gray bats, some cave salamanders and several camel crickets in the entrance passage. **Oct 21<sup>st</sup>**—Grant Spoering and Jon Beard guided the annual MSU speleology class through Breakdown and Fitzpatrick Caves (Christian Co), teaching the students about the types and causes of breakdown and its role in the development of large rooms and passages as well as the role of the cave as a restoration laboratory including some of the restoration techniques used. **Oct 22<sup>nd</sup>**—Charley Young, Brandon Van Dalsem and Jon Beard completed the survey of the Left Fork in the deep recesses of Lowell Cave (Wright Co) as part of CRF project mapping in the Fuson Conservation Area. All that remains of the survey of the cave are a couple of mop-up trips. During the mapping, Charley photo-documented some of the cave's dome rooms and passages. **Oct 24<sup>th</sup>**—Brandon Van Dalsem and Jon Beard had a great trip to Garrison Cave #2 (Christian Co). More than 100 photos were taken of rimstone waterfalls, six-foot tall rimstone dams, isopods, salamanders, speleothems including Pete Fountain, First and Second Divinities (50 and 75-foot wide white flowstone and rimstone terraces), pipistrelle bats, all the while Brandon's Go-Pro was running. Critters found: at least 50 pickerel frogs, over 50 cave salamanders, five pipistrelles, five bristly cave crayfish, and isopods. A very memorable adventure! **Oct 27<sup>th</sup>**—Brandon and Jon completed the mapping of the Left Fork in Lowell Cave (Wright Co) with some mop-up measurements and sketching. Brandon took dozens of photos of the passage. On the way out of the cave, they photographed a piebald cave salamander with almost no markings on its torso but normal coloring on its tail. One more scheduled CRF trip to complete the survey of the cave. **Oct 29<sup>th</sup>**—Charley Young, Brandon Van Dalsem and Jon Beard completed the survey of Lowell Cave (Wright Co) with a marathon session in the Upper Level of the cave. First, the Flowstone Canyon was mapped, then a remaining section of the Upper Level was mapped (the most downstream accessible portion). The cave exceeds 6,800 feet in length. Several photographs were also taken. **Oct 31<sup>st</sup>**—Matt Bumgardner and Jon Beard joined fellow CRF surveyors Richard Young, Mark Jones, Scott House, Rick Haley and Don Dunham in the survey of Mud Spring Cave (Howell Co) as part of a multi-day CRF project weekend in the area. Matt, Jon and Mark mapped from the end toward the entrance while Richard, Scott, Rick and Don mapped from the entrance inward. Length of the muddy cave is a little over 800 feet.--Report by Max White, Material provided by Jonathan B. Beard

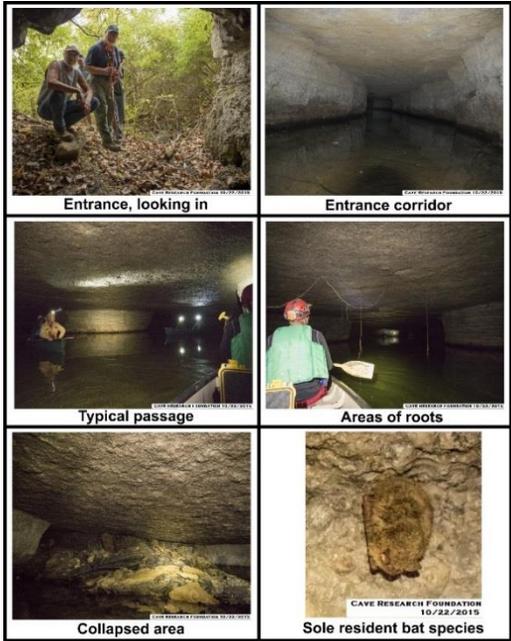
**KCAG. Sept. 12<sup>th</sup>**- Jim Cooley led a team consisting of three KCAG members, Rick Hines, Nathan Taylor, and Austin Toler, to Jesse James Cave (JKN-002) in eastern Jackson County Missouri, along with eight members of the Cave Spring Historical Research Society (CSHRS), and the landowner. In the event, only Hines and Taylor entered and explored this 409ft long low, wet, low-flow stream cave, terminating in a sump, which was devoid of formations and wildlife but not of graffiti and a little trash. The map prepared by G. Thomas and R. Freeze in 1960 was accurate. **Sept. 5<sup>th</sup>**-Jim Cooley and Kay Foglesong visited Cave Spring Cave (JKN-001) for the CSHRS, to evaluate the cave for gating and to assess an alleged existing rock wall built too close to the cave. As it turns out, there is no manmade obstruction blocking the cave entrance, it's just damned small – too small, in fact, for these investigators to enter further than 10 feet. The map of a very tight, 113ft long cave prepared by Charlie Watts, D. Gooch and B. Harmon in the 1975 is presumed to be accurate. **Sept. 19<sup>th</sup>**- Jim Cooley led a

team consisting of Dennis Novicky, Alex Roberts (Chouteau), and Rita Worden (Chouteau) to Pin Oak Cave (CAM-113) at Lake of the Ozarks State Park, where the survey was extended from 585 to 667 feet, all in extremely low passage mostly filled with deep, incredibly soupy mud. Unfortunately, after completely fouling the instruments and thus terminating the survey effort for the day, the muddy madness subsided and the cave continued for at least another 100 feet of low, decorated passage that will require yet *another* survey trip. This time, we'll start at the much less muddily daunting back end of the cave, and survey toward the entrance. There is also a low, right-side stream lead to push just before the hellacious mud starts. (Sometimes, they just don't want to give up. Well, neither will we.) **Sept. 20<sup>th</sup>**-Jim Cooley joined DJ Hall to lead a landowner-and-family familiarization trip at Cleveland Cave (SCL-001), which Cooley manages for MCKC. Ownership of the cave recently changed hands. The new landowner, an old Scouter, will continue with MCKC management, under a slightly more restrictive access policy that still allows on-site camping. The cave will remain a good destination for Scout and other civic groups. After leaving Cleveland, Cooley did a solo recon hike out to Walnut Hollow Cave (SCL-005), a pit cave on Truman Lake owned by the U.S. Army Corps of Engineers (USACOE). **Oct. 5<sup>th</sup>**- Jim Cooley, Dennis Novicky, Brenda Goodnight and George Bilbrey were trained by the Mark Twain National Forest (MTNF) to drive UTVs at the Dewitt Pond Silo in Pulaski County, in order to be permitted to drive these vehicles during gating projects. **Oct. 6<sup>th</sup>**- Jim Cooley led a team of Dennis Novicky, Cliff Gill and vertical experts Terry Defraties and Darla White, along with USACOE Ranger Larry Smith, out to Walnut Hollow Cave (SCL-005) to survey 182 feet of mostly tall canyon passage. The interior pit "maybe a hundred feet deep" turned out to be two interior pits dropping into the same stream passage, 15 and 25 feet deep respectively. Dennis Novicky was able with some difficulty to down-climb the 15-footer. We will be going back in December to try and finish this survey. **Oct. 11<sup>th</sup>**- Jim Cooley and Dennis Novicky visited Wallace Cave (SHN-032) on the Ozark National Scenic Riverways (ONSR), to mark a trail to the cave for a November gating project. **Oct. 12<sup>th</sup>-13<sup>th</sup>**- Jim Cooley and Dennis Novicky backpacked out on to the Irish Wilderness (on the MTNF) to survey 87 feet of Lagoon Cave (ORE-136) and all 35 feet of Accident Cave (CAM-137). Lagoon Cave continues



Lagoon Cave continues very low and wide and will require another survey trip. **Oct 13<sup>th</sup>**-Jim Cooley, Dennis Novicky, Brenda Goodnight and George Bilbrey were trained by the MTNF safety manager Rick Case in Rolla in defensive driving techniques, a required step on the road to getting Federal driver's licenses. **Oct. 22<sup>nd</sup>**- Jim Cooley led a team of Rick Hines, Jerry Cindric, Jay Bridgewater, Cliff Gill, and Jaclyn Dalbey into the abandoned mine below the Trolley Track Trail in

southeastern Kansas City. The trail has been collapsing into the mine, and the City of Kansas City's Public Works Department is procuring federal funds to repair and remediate these collapsed sections. These funds carry a requirement that endangered species habitat be assessed as specified in the Endangered Species Act (ESA) for impacts to Federally listed species, which in the case of mines may include the endangered Indiana bat (*Myotis sodalis*) and gray bat (*Myotis grisescens*), as well as the threatened Northern long-eared bat (*Myotis septentrionalis*). The U.S. Fish and Wildlife Service (USFWS), which is the Federal agency tasked with administering and enforcing the ESA, had referred the City to CRF and Cooley as someone knowledgeable in subterranean bat assessment. The assessment was conducted in canoes, as the mine is largely flooded. The only bat species found



Trolley Track Trail Mine

was the tri-colored bat (*Perimyotis subflavus*), and surprisingly, we only found 12 of those. **Oct. 24<sup>th</sup>**- Bill Gee led a trip that included Rita Worden (Chouteau), Cliff Gill, Meghan Gallo, Derek Thompson, and Ben Perkins (OCDA) on a round trip to the Mountain Room in Carroll Cave (CAM-001) for the annual bat survey. They entered the cave at 10:15 a.m., and were out at 7:45 p.m. They found several stretches with no bats at all, but also found three clusters of gray bats (*Myotis grisescens*), perhaps 600 to 1000 individuals in each cluster. They saw very few tri-colored bats. They did see a few blind cave fish (*Typhlichthys eigenmanni*), one epigean banded sculpin, and one epigean crayfish, probably an accidental. **Oct. 25<sup>th</sup>**- Jim Cooley and Dennis Novicky returned to Wallace Cave to evaluate preparation work by ONSR, deliver steel some for a gate, and pick up flagging tape. The next day, they worked with the park to load steel and prepare for the gating project, scheduled for Nov. 5<sup>th</sup>-9<sup>th</sup>. **Oct. 27<sup>th</sup>- Nov. 2<sup>nd</sup>**- A gating team led by Jim Cooley and consisting of Pic Walenta,



Jay Bridgewater, Joe Williams (MSM), Dennis Novicky, Brenda Goodnight, Mark Jones, Bree McMurray (MODoT), and Rita Worden (Chouteau), along with six Americorps volunteers, built a cupola gate over a 30ft deep mine shaft with deep water at the bottom, and a regular full-enclosure bat gate at the horizontal entrance of the same mined cave, namely Radium Cave (BRY-016), a formerly mined cave on the MTNF in Barry County, six miles south of Roaring River State Park. Highlights of this adventure included MTNF Forest Tech Jess Register chain sawing through a nest of yellow jackets, which result-

Radium Cave Americorp steam

ed in everyone in the vicinity (including this reporter) getting multiple stung. Register received dozens if not hundreds of stings, including several on his *eyelids*, as he ran over a hundred yards down the hill while smashing angry yellow jackets by the handful, with both hands. He later reported: "That hurt." **Nov 3<sup>rd</sup>**-The team turned its attention to repairing the gate on nearby Onyx Cave (BRY-015), which had been in breach status. As of this writing, the Wallace Cave gating project was just getting underway.



Onyx Cave gate



Radium Mine gate babes

--Jim Cooley

## CALENDAR

Jan. 5<sup>th</sup>, 2016 – Next *Liaison* deadline

Jan. 23<sup>rd</sup> – Winter MSS meeting, 1 p.m, Rolla, MO. Everyone welcome.

Apr. 29<sup>th</sup>-May 1<sup>st</sup> – Spring MVOR, hosted by MCKC, near Brumlev, MO.

**NOTICE: MSS annual fees NOT paid are – CCC – KCAG – SEMO.** Please send them to Don Dunham, 147 Ron de Lee, Arnold, MO 63010 as soon as possible. These were due in January of this year. **MSS Annual reports** have all been submitted.

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**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