

# THE MSS LIAISON

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July - August 2022

### AFFILIATE ORGANIZATIONS:

CAIRN – CHOUTEAU – DAEDALUS – KCAG – LEG – LOG – MCKC - MMV

MSM – MVG – OHG – PEG – RBX – SEMO – SPG - Stygian

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### Missouri Speleological Survey

#### President's Message September 2022 by Dan Lamping

The Fall 2022 MSS meeting is approaching quickly. See the flyer in this issue of Liaison with information about the meeting site and cave mapping trips into Devils Icebox Cave. In the event of rain, we have backup objectives to do some cave monitoring and possibly mapping in Three Creeks Conservation Area in cooperation with Missouri Department of Conservation via a permit through Cave Research

Foundation. Please pass the meeting information along with the invitation to help map in Devils Icebox to able-bodied cavers in your grottos. Be sure to contact Rita Worden if you plan to help survey so we have an idea of how many people to put onto teams. Remember, kayaks or low profile, small canoes are needed and anyone entering the cave needs to be able to carry their own boats down stairs into the cave and back up after the trip. The park does have some boats, but we don't know how many will be available to us, so best to try arranging to bring your own. If you're coming and you have two kayaks, please bring an extra in case someone else needs it. They'll no doubt be appreciative. Note as well the stipulation about boots with 3/16" lugs. I've used hunting boots in there and they were approved by the park. While hassling with boats and deep lugged boots may seem like a bit of an annoyance, this is a rare opportunity to get to go into a truly awesome Missouri cave.

Currently, the Cave Files Committee is working on a cooperative data sharing agreement with the U.S. Army Corps of Engineers. The Corps is often charged with making environmental impact assessments for various projects, particularly those involving water, that could impact caves and karst. The agreement, similar to the one we have with the Missouri Department of Transportation, will put cave data such as point locations and faunal records into the hands of a limited number of personnel who will be able to make data-informed decisions regarding projects which could be detrimental to caves. In turn, there is now the expectation that they will share data with us. Perhaps, the best example of the importance of sharing cave data. in order to protect caves, was the work cavers did in preventing the creation of the Meramec Dam. The project waxed and waned during much of the 20th century but during the 1960s and 1970s, cavers concentrated their efforts in the Meramec region to document caves in order to prevent the project. The dam(s) would have inundated numerous caves in the Meramec valley, destroying important bat habitat and potentially creating an environmental nightmare as the proposed dam sites were above known caves with deep layers of clay residuum that could have been washed out. Fortunately, the dam project was decommissioned in the early 1980s. This is just one example of where cave data was used to make a compelling argument against a development project in the name of saving caves. While in the course of this project, it was cavers versus the Corps, our hope is that by providing such information upfront we can avert similar bad ideas. One cannot very well plan for and protect what one doesn't know exists.

**Affiliate fees of \$25 were due in January. The fee must be paid to be seated on the Board at the meeting. The organizations still owing are: OHG (still active?), Daedalus, and Roubidoux (owes \$10.00).**

## Identifying Cave Life: Part 8 – Beetles

This is another in an occasional series to help those doing cave monitoring, or who are just interested in knowing who they are looking at underground.

Looking back on this series I was surprised to see that I had not yet tackled the beetles – one of my favorite groups of animals since childhood. Beetles are amazingly diverse – the most species-rich of all the insect orders. Fortunately for the Ozark cave biologist, the number of species that regularly show up in Ozark caves is very much smaller.

The commonest cave adapted beetle in the Ozarks is a little fungus beetle called *Ptomaphagus cavernicola*. You can find these, sometimes in large numbers, in areas of concentrated food supplies, such as guano piles. Together with the cave dung fly *Spelobia tenebrarum*, they are the first to show up at a fresh corpse or dung deposit. They are rather tiny - 4 mm (1/8 inch) - oval shaped and brown, often with a grayish cast to the wing covers (elytrae). As the common name suggests, the adults are fungus feeders. The larvae, though, are predators on small invertebrates, especially on the maggots of *Spelobia*. The larvae are fairly easy to spot – they are about the same size as the adult and have a body that's tapered front to rear. Although found almost exclusively in caves, there is a question as to whether *Ptomaphagus* is a true troglobite. It has functional eyes and is widely distributed and common with little variability across its range, strongly suggesting the ability to disperse overland. It has been collected at least once from an area lacking in karst.



*Ptomaphagus cavernicola*

Cave adapted beetles that are unquestionably troglobitic are common throughout eastern North America east of the Mississippi. These are members of the trechine family of predatory ground beetles (Carabidae). They are small, brown, and all look rather similar. Those of you who have caved at Mammoth Cave will probably be familiar with *Neaphaenops tellkampfi* the well-known predator on cricket eggs (sorry, no common names in this group!). West of the Mississippi, two species of *Xenotrechus* were known from two sites in Ste. Genevieve and Jefferson Counties, but these beetles have not been recorded since 1978, and their current status is unknown. The most widespread genus is *Pseudanophthalmus* (sued-an-off-thal-muss) with more than 100 species, many of them known from only one cave, and only distinguishable from each other by highly technical features. This genus was believed absent west of the Mississippi, but that changed in 2005 when Sue Hagan spotted a beetle in Branson Cave that looked like it belonged in Mammoth Cave rather than Shannon County, Missouri. Sure enough, this turned out to be the first record of a *Pseudanophthalmus* beetle west of the Mississippi. The genus subsequently turned up in three additional caves in Shannon and Texas Counties. With single site endemism common, we don't know whether we have one new species or as many as four. In three of the caves, the beetle is very sparse – Branson Cave was looked over by biologists many times without noticing it; the Island Branch record depends on just one observation. Only the Texas County site has a sizeable population. The first batch of specimens went to the then leading expert in the genus, Thomas Barr. Unfortunately, Tom died before he could finish describing and naming



*Pseudanophthalmus* new sp. Photo by Matt Neimiller



the beetle, and the specimens were lost. The Texas county beetle is currently in the hands of another taxonomist awaiting a full description – these things take a lot of time!



*Platynus tenuicollis* Photo by Dan Lamping

Although this is not an animal you will come across often, it's worth keeping a look out for to see if its range is larger than we currently know. It's a small (5 mm or 3/16 inch), light brown beetle of slender build and has been seen associated with woody debris or just wandering around on mud banks. With a hand lens, you might be able to determine that it's lacking eyes.

Now for a few beetles you're likely to encounter much more often than the little trechine. As with all taxa, pretty much anything could show up as an accidental or casual visitor, but there are several semi cave-adapted troglophiles. Probably the commonest and most conspicuous is another ground beetle, *Platynus tenuicollis*. It's a large, black beetle, about 12 mm (1/2 inch) long with a glossy jet-black body and tan legs and antennae. They are frequently seen wandering around on the mud banks of streams but can show up more or less anywhere. Beware though, there is a less common look-alike troglophile – another carabid ground beetle called *Agonum*

*extensicolle* that differs somewhat in the shape of its head and thorax. Best to just note any of these as an unidentified ground beetle.

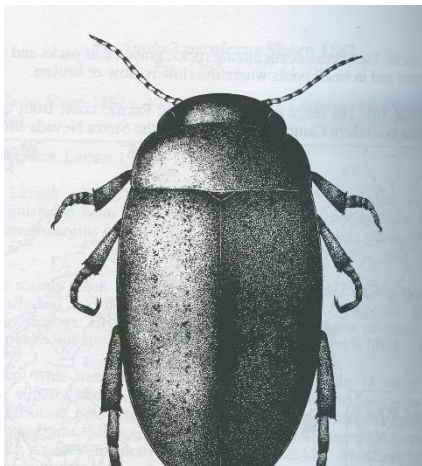
Another common troglophile is the rove beetle *Quedius erythrogaster*. Rove beetles are a very distinctive family (Staphylinidae), easily told by their long, thin abdomens which are not completely covered by the elytrae (wing cases). *Quedius* is a relatively large rove beetle, about the same length (12 mm, 1/2 inch) as *Platynus*. The head and thorax are black, while the wing covers are a rich chestnut and the abdomen is dark reddish-brown. You will most often see them in areas of dense organic material, especially bat guano piles, where they hunt small invertebrate prey. Also common are much smaller, all black rove beetles of the subfamily Aleocharinae. These will also be found most often in and around dung and guano deposits. There are at least two species, *Atheta troglophila* probably being the commonest, but



*Quedius erythrogaster* Photo by Matt Bumgardner

aleocharines are extremely difficult to identify and the taxonomy is a bit of a mess.

Cave streams can be home to a variety of aquatic beetles. Generally, they occur in small numbers in near-entrance situations but in a few caves predatory diving beetles (Dytiscidae) have high population densities and extend well into the dark zone. The largest of these at about 13 mm (1/2 inch) is an apparently undescribed species of *Ilybiosoma*. As for many other insects, this *Agabus/Ilybiosoma* complex is species rich and in need of some taxonomic revision. The beetles have shiny black convex oval bodies. The legs are adapted for swimming, with broad leg segments and long dense "hairs" (setae) forming effective paddles. Less often encountered are beetles of the family Hydrophilidae (water scavenger beetles), which look superficially similar but have vegetarian rather than carnivorous habits. There are smaller aquatic beetles that also turn up occasionally



*Ilybiosoma* sp. Illustration from *Predaceous diving beetles of the Nearctic region*, Larson et al. 2000.

such as Elmidae (riffle beetles), which you'll see crawling along the bottom but never swimming, or Haliplidae (crawling water beetles) which are small, oval, and despite the common name do swim as well as crawl.

Keep an eye out for the odd casual visitor as well – for example, fireflies have been known to occur well into the dark zone, and as with other invertebrates, pretty much anything from the surrounding landscape can turn up as casual or accidental visitors. (Photo credits: *Pseudanophthalmus* – Matt Niemiller; *Platynus tenuicollis* – Dan Lamping; *Quedius erythrogaster* – Matt Bumgardner) – Mick Sutton

**Missouri Speleological Survey Files Report for September 1, 2022.** If you have **new information** on any Missouri caves, my email address is [slagrush@gmail.com](mailto:slagrush@gmail.com). We need your help to improve the database and make it more complete. I can and do work with Facebook entries, but for information or photos to be incorporated I need to be “private messaged” with the cave name and county. **Alvey-Mudd sent:** -8 Faunal Records and 12 photos of Camp Zoe Cave in Shannon Co. **Allan Breite sent:** -A map of Little Sugar Cave (CL35) in Lincoln Co. It is interesting to note that this map is one of 2 maps made for the county over the last 36 years (since 1986). Dan Lamping broke a long dry spell for Lincoln cave mapping in 2013 (27-year gap) with his map of Upper Lost Cave; now 9 years later for the next map. When the previous 1986 map was made, the county had 34 caves, but today there are 51 caves. Mapping always seems to fall behind cave discovery! **Mark Brooks sent:** -6 photos and a report on the re-entry of Berome Moore via the Pot O' Gold entrance, which was recently “acquired” by MCKC. This will be significant improvement in travel times to this part of the cave system. **Jim Cooley sent:** -A map of Dour Face Tunnel (CL33) in Oregon Co. **Josh Cooper sent:** -A high resolution composite of the old Streiler City Cave map. The original documents are in 3 pieces, turned at different azimuths, but they hadn't been composited before...or at least not documented or archived. **Bill Gee sent:** -The latest map from Stark Caverns in Miller Co. At 4,211 ft, it is the longest surveyed cave in the county. **Ken Grush sent:** -14 maps for caves in St. Clair Co. on Truman Reservoir. Work was done in cooperation with MDC which leases some of the shoreline at Truman. Three “maps” were submitted for each cave: one displaying only LIDAR imagery; one displaying that imagery traced to define walls, cross-sections and ledges; and one displayed as a traditional cave map. The iPhone13Pro LIDAR also provides a 3D model that is portable enough for most people to display on their computers. Tens of images can be sliced through the model, horizontally and vertically, to further detail the cave's shape. -Updates to database for Magee Pit, Fernside Pit and Daly Cave in Jefferson Co., including some photos, GPS and directions/descriptions. -Final map of Castlewood Cliff Cave (CL=38 ft) helped raise suspicions that this new location was simply a better location for a previously reported cave. -Over 750 Narratives captured from OHG's Ozarks Underground were transcribed from scanned newsletters and the transcripts placed into the database for easy reference. **Sam Grush sent:** -A location, new directions and scan of Castlewood Cliff Cave in St. Louis Co. The old “GPS” location (actually only a latitude/longitude set of waypoints) was only off by half a mile. Old latlon locations were often off, just weren't easy to calculate for everyone. **Scott House sent:** -Maps of Pillar (CL40), Flowstone Alcove (CL26), Boom Hole (CL98) Caves in Oregon Co. and Prediction Cave (CL=75) in Shannon Co. -Use Monitoring form, Narrative and 11 Faunal Records for Round Spring Caverns in Shannon Co. for CRF work in ONSR. -Maps of Alphen Hollow Cave (CL=3,164) in Shannon Co. and of Zigzag Cave (CL=76) in Oregon Co. -Preliminary map of the re-survey of Streiler City Cave (CL=3,052) in Perry Co. **Dan Lamping sent:** -A report of “bad air” in Shady Valley Cave in St. Louis Co. -Via Scott House, 4 Faunal Records and trip Narrative for Alphen Hollow Spring Cave in Shannon Co. -Latest maps of Love Cave (CL=5838) in Crawford Co. and Tumbling Creek Cave (CL=10,782) in Taney Co. **Bob Lerch sent:** -Sent, via MCKC, a report on Johnson Cave (est CL=25) in Camden Co. **Joe Light sent:** -A volley of 5 emails that were addressing over 45 caves that a St Louis art museum was considering for a “bomb shelter” during WWII. Many of these caves had earlier records that predated this report, but in some instances this documentation provided the earliest “known” report on the cave. -Reports, locations, Faunal Records and photos for Bluff, Sprinkle Spring, Outlaw and Lone Hill Onyx Caves for a recent trip to Franklin Co. -Reports on visits to Sheep Cave in Franklin and Greens Cave in Washington Co. -Report on the dog rescue at Berome Moore Cave in Perry Co. -An 1873 newspaper article listing 15 caves that were known at that time. Fortunately, the article was already transcribed and distributed to the 15. Always

good to verify. -Sent monitoring data for a visit to Sheep Cave's entrance area in Franklin Co. Three photos were included. **Alex Litsch sent:** -A new map of Cedarledge Spring Cave (CL=181) in Jefferson Co. -Trip report for survey work in Carroll Cave in Camden Co. **Chad McCain sent:** -A Narrative for a survey trip to Gegg-Esoteric Cave System in Ste. Genevieve Co. The cave may soon break the 5-mile mark for length. **Kohl Mitchell sent:** -A new location for Monroe Co.! This just goes to show how easy it is to add significantly to the database...Mitchell just recently (and with this cave) doubled the cave count of the county. OK, going from 2 to 4 isn't a big jump, but he did it...so can you...lots more caves to be found. **Tony Schmitt (via Scott House) sent:** -Reports on 3PM and Catacomb Caves in St. Louis Co. -Monitoring form and Faunal Records for a lost cave, and almost lost report (written in 2019, submitted but not entered) for Shelf Rock Cave in Texas Co. -Trip report for survey work in Carroll Cave in Camden Co. **Stan Sides sent:** -Information for a new cave in Perry Co., Blue Tick Pit, which was the location of "another" dog rescue...only this came from 1980. **Taylor Steinfeldt sent:** -17 Narratives for caves within Roaring River State Park. Steinfeldt is new park ecologist. Among these reports were 2 new, small caves and 1 lead. **Mick Sutton sent:** -A map of Wild Ginger Cave (CL17) in Reynolds Co. -16 different trip narratives for a total of 31 caves in Carter, Howell, Iron, Oregon, Reynolds, Shannon and Washington Counties. **Max White sent:** -Trip report, 9 Faunal Records, bio-photos for a trip to Lowell Cave in Wright County under CRF.—Ken Grush

**Meramec Valley Grotto (MVG). June 24<sup>th</sup>** - Joe Sikorski and Alex Litsch pushed a grim new spring cave in Jefferson Co. with hopes it may open up under a very large ridge. Unfortunately, it narrowed down to a very low air passage beyond the already very gnarly cave passage. The end of the cave was called there and it was mapped to nearly 200 ft. long. **June 30<sup>th</sup>** - Dan Lamping and Joe Sikorski returned to map a St. Louis Co. cave and were caught off guard by some very bad air. They narrowly managed to get out of the cave through a low water crawling passage. They are using the experience as a learning opportunity and now are studying more deeply how bad air comes to be in caves and how cavers can be safer. **July 3<sup>rd</sup>** - Chad McCain, Mark, and Gretchen dug open the long time buried, and recently purchased by MCKC, Pot of Gold entrance into the Moore Cave System. They were successful in entering the cave from there. **July 16<sup>th</sup>** - Several MVG members continued surveying in a complex 3+ mile system in Jefferson Co//St. Francois Co. 1,101 feet was surveyed. **July 18<sup>th</sup> – 23<sup>rd</sup>** - Several MVG members and other cavers assisted CRF and the ONSR in monitoring caves in southern Missouri. **July 20<sup>th</sup>** - MVG did a grotto cave trip and had their meeting inside a St. Louis Co. Cave. **July 23<sup>rd</sup>** - Dan Lamping, Joe Sikorski, Derik Holtmann and others finally found the end of a sporty, wetsuit required cave on the Current River. They netted 150 feet more feet on the 3000-ft cave system and put to bed a project that started in 2010. **July 23<sup>rd</sup>** - Chad McCain, Cathleen Yung, Alex Litsch, Isaac Smith and Melissa Meyer (SEMO) continued mapping in a 4+ mile Ste. Genevieve cave. A few leads were finished off and some new ones added. A known passage that had gotten buried by a flood pulse was dug back open. 404 ft. were surveyed. **July 24<sup>th</sup>** - Dan Lamping, Joe Sikorski, Tony Schmitt, and Derik Holtmann surveyed in a significant southwest Missouri cave. A highlight of the trip was finding a large fishing spider actively feeding on what appears to be a cave salamander. **Aug. 6<sup>th</sup>** - MVG members and many other cavers gathered at MCKC's Berome Moore Cave Preserve to conduct a dive push in a flooded passage as well as survey in various places. The dive was unsuccessful, but 1,500 feet of survey was completed and a dog lost for 2 months was found and rescued.—Alex Litsch

**Middle Mississippi Valley Grotto (MMV). Apr. 22<sup>nd</sup>** - Laura Belarbi, Dane Driskoll, Larry Ablin and Michele Leight visited Giant City State Park where they practiced repelling in order to be prepared to visit pit caves. Laura and Dane were first time repellers. **Apr. 23<sup>rd</sup>** - Multiple activities occurred at a Berome Moore Cave work day. Brian Biggs and Alex Litsch removed the bathroom from the entry passage. This bathroom had been shut down for many years. While that was going on, Dane Driskill and Mario Ballard installed a new 60-amp electric panel on the surface next to the entrance. The previous panel was very old and in poor working condition. Finally, Rick Haley and Laura Belarbi assisted Lois Walsh into the cave and up to base camp to see the "Gone Caving" plaque on which Joe Walsh is a proud participant. Rest in peace Joe! **Early June** – Brian Biggs, Julie

Springman, Mark Elbert and four adult kids visited Berome where they traversed the four-hour loop. As was the case here, this loop is often used to introduce new interested cavers.

**(This next trip took place** earlier in the year but I am including it because it is a well written and interesting trip report by Brian Biggs. Good caving is timeless.) **Feb. 26<sup>th</sup> – Lower Stream Annex.**

All 4 teams entered Berome at roughly 9:30. We split into a Cat Track group and A Lower Stream Annex group (LSA). The LSA group traveled safely downstream in slightly elevated water depths and arrived at the EOS at about 10:50. Survey began in Lower Stream Annex at 11 am. Aaron McLean, Kyle and I started at the same station as Dan's team, but obviously surveyed off into different directions. Brian's team surveyed north for about 150' until reaching the intersection of a cut around. The survey was taken into this passage, which was later named FTP. This passage trended back south, and was an average of 18" tall, from ceiling to the bottom of the canyon slot. The canyon averaged 6" x 6", leaving the usable part of the passage to be an average of 12' tall x 30" wide. This was surveyed for another 150', until the sketching equipment was left unusable by the mud, and the survey was called. Kyle and Brian came back out the hard way, the way we came from. Aaron scouted ahead and exited back into LSA at station J10. We stopped and had lunch while considering whether to finish, knowing this new information about how much was left, and where it tied in. We decided to not go back in. Following the conclusion of lunch, we set out to piggyback survey with Dan's team. We made it just another few shots before Brian called it again out of frustration with the mud-soaked sketching instruments. Dan's group went down further. We started to head out, back upstream in LSA. It was immediately noticed that the water velocity had greatly increased. Travel was a little more difficult. Shortly after this, it was noticed that the water level was rising. It was at this time that Dan's group caught up to us fast and overtook our group. Their pace was impressive. On the way in, the deep water was knee deep and slow. On the way out, the deep water was waist deep and fast. We soon enough reached annex crossover, as a group and got out of LSA. We took the Pit Passage route to basecamp and noticed an 18" rise in the Tom water level. We got out of the water, never in real danger, just with extra effort. No one expected the snow melt to raise the water so. Upon entering base camp, the Cat Track people met up with us. They were.....drier. At base camp a great picture was taken, and everyone exited safely, better than my typical 90% requirement. The entry passage water inputs were more impressive than normal on the way out. The water catch supply was nearly horizontal with so much pressure behind it. Everyone had great trips, and about 3000' total was gained from everyone's efforts.--Doug Leer

**Stygian Grotto. July 2<sup>nd</sup>** - JJ Huelsing, Allan Breite continued the trash & debris removal in the sinkhole cave In St Charles Co. 2 more cubic yards removed. **July 4<sup>th</sup>** - Allan Breite installed 1" rebar to close the gate breach in the Green Arrow Cave gate in Lincoln Co. The breach is now securely closed off and the planning can finally begin to remove the extensive damage and restore the cave. The NSS vandalism information reward is still available for information leading to the arrest of "Travis" and other perpetrators of this damage. **July 10<sup>th</sup>** - Allan Breite discovered otters denning in Little Sugar Creek Cave in Lincoln Co. during a survey of the cave. Cave map for Little Sugar Creek Cave completed and submitted to Ken Grush for the MSS cave files. **July 20<sup>th</sup>** - Rich Orr joined members of CRF & KCAG to check for bat activity in Bat Cave. Plans for a new bat friendly gate are in the works. **July 24<sup>th</sup>** - Allan Breite & Kevin Berdak finished rebar modifications and made a brief inspection for any further tampering with the gate at Green Arrow Cave, none observed. **July 30<sup>th</sup>** - JJ Huelsing met with a new landowner contact as part of a community outreach. **Aug. 13<sup>th</sup>** - JJ Hulesing met with a landowner for a community outreach follow-up. **Aug. 20<sup>th</sup>** - Allan Breite & new member, Ian Pelletier, continued the trash removal and excavation of the sinkhole in St Charles Co. Another 2 cubic yards cleared. A pulley system has been installed to facilitate the material lifting. **Aug. 30<sup>th</sup>** - JJ Huelsing and Dawn Martin conducted a field survey for a new lead In Lincoln Co.--Allan Breite

**Daedalus Cavers Grotto. Aug. 6<sup>th</sup>** – Jeff Fennell, Ben Geisert, Krista Bartel and Cody Cox surveyed 758.5 ft. in a Paleo trunk passage in Tom Moore Cave. (Yes, this was the day the dog was rescued but we were not involved in said rescue.) We were upstream acquiring data for the map. **Aug. 27<sup>th</sup>** - Jeff Fennell, Ben Geisert and Dan lamping surveyed some side passages downstream in Carroll River in Carroll Cave. We entered the silo



at 10 a.m. and exited around 11:30 p.m. Our team netted 503 ft. of new passage. She (Carroll Cave) is now over 21 miles long!! --Jeff Fennell

**Lake Ozarks Grotto (LOG). Aug. 26<sup>th</sup>** – Ken Long, Klaus Leidenfrost, Jean Knoll and Elizabeth Sutherland worked at the famous Goodwin Cave and Sink near Lebanon, MO. The plan for the day was to continue working on projects recently started. Elizabeth had brought her wetsuit. She and Klaus had plans for pumping water caught in the sump area of the cave into the small cave passage in hopes of washing out more mud and gravel. Jean checked her flowers, watering as needed and picked up small dead branches to be burned. Ken brought his better half's metal detector and took it down below the waterfall area to see if I could locate any buried metal. Klaus had future plans for a backhoe to be there to dip up all the loose rock washed in from the road and adjacent property from recent rains. As the metal detector sounded, Klaus marked an orange X on the ground. After several spots were marked, Klaus and Elizabeth decided to start pushing some water thru the sump area so Ken headed back up to the picnic area to finish a project he had started on a previous trip. The new pavilion that was built a few months ago needed a door on it to make it secure. On an earlier trip, Ken had managed to get the door frame partially done but it still needed a lot of work. As Ken worked on the door, he couldn't help notice how quiet and calm it was.--Report from Ken Long, submitted by Alberta Zumwalt



*Elizabeth Sutherland*

**Springfield Plateau Grotto (SPG). July 16<sup>th</sup>** - Illinois Caverns (Monroe Co., Illinois) SPG President, Nathan Burton, led a group of SPG members, Amy Burton, Chris & Jody Gertson, Sarah Peterson and Cheryl Paulson & Max White. The group followed the main passage until the deep pool before turning and heading back. The passage was all walking with a few small climb ups and back downs. Some trash was picked up and brought out. The group saw salamanders and even a tree frog that had washed in. **July 30<sup>th</sup>** - Illinois Caverns (Monroe Co., Illinois) Sarah Peterson, Joseph, Terrance and Farah traveled to Illinois Caverns for a recreational trip. While there was no official trip leader, Joseph initiated the trip. The group entered the cave around 9:00. They followed the main channel until the rimstone dams, then went down that side passage for about 20 minutes before turning around. Some fungi, beautiful pools of water, several frogs and fish were seen throughout the cave. The group followed the water and eventually it got too deep and too low ceilings so they turned around and followed to the right until they met up with the stream again. Followed it for another ~200ft. before turning back toward the entrance. The group picked up trash on the way out. **Aug. 11<sup>th</sup>** - SPG members, Tyler and Richard Thompson and Max White met Marty Griffin, MCKC Cave Manager, for Sarcoxie Cave. Tyler and Richard made a repair to the gate. The group picked up trash and cleaned graffiti off the rock face at the entrance of the cave. **Aug. 20<sup>th</sup>** - Perkins Cave. SPG, KCAG, and new cavers, Brandy, Lola, Elizabeth Jones Sean Faye, Karen Valerie, Palmer, Diane and Sarah Peterson were led by trip leader Kristen Vogel on a Beginner's Recreational trip through Perkins Cave. The group got into the cave after fumbling with the lock, saw a wolf spider and lots of bacteria near entrance. Almost instantly, the cave went to crawling through thick mud for a while, not stopping until they had gotten to the lower passage for the waterfall. The group kept going until the next larger room to eat lunch. Then continued to the end to see the flowstone before starting to make their way back. Sarah and three others went down a super muddy and wet side passage to see formations. Then everyone made their way back towards the front. The group turned the lights off before leaving to experience "total darkness." **Aug. 27<sup>th</sup>** - Onondaga Cave, Dr. Doug Gouzie (SPG) led Missouri State University Speleology class, including Sarah Peterson (SPG) on a trip to Onondaga Cave State Park, arriving at around 11am and entered the cave shortly after with a guide. The class went off the path at the back to go further into the cave to see parts that were once a part of Missouri Caverns. The group saw the old stage and other entrance to the cave. They also saw bats and salamanders in the back part of the cave. Then

made their way back to the paved trail and continued the tour like normal. Spending about 2 hours in the cave. Reports by Max White. Content provided by Sarah Peterson.

**Kansas City Area Grotto (KCAG).** July 9<sup>th</sup>: Kirsten Colston of KCAG led an eight-person novice trip to Perkins Cave. July 9<sup>th</sup>: Bill Gee led Martin Carmichael, Becca Marlin, Tyler Marlin and Olivia Trussell on a Carroll Cave data logger service trip. They downloaded all data from the stream level loggers. They also collected some water samples for isotope ratio analysis, for a research project run by Tyler Huth at Washington University of St. Louis. July 9<sup>th</sup>: Jim & Julie Cooley accompanied Nathan and Amy Burton to Kanakuk Kamps Cave #2, on a Christian youth camp near Eureka Springs, Arkansas. This cave is extensively used in their youth adventures program. This cave had been gated in 1995, and the gate recently breached. Jim discussed the problem with Kanakuk Kamps manager Scott Morris and Nathan, and determined the best place to put a proper bat-friendly, air-flow-optimized bat gate. We then measured for the gate, and Cooley designed the gate within the week. The Kamps were very anxious to get the cave secured before the excellent



CRF 7/18/2022

**Happy Trash Collectors at Bat Cave Franklin County**

speleothems were trashed by vandals. While there, we also did a preliminary investigation on nearby Kanakuk Kamps Bat Cave, a colonial bat site. July 14<sup>th</sup>: Bill Gee and Seth Colston led a wild cave tour for the staff of Stark Caverns, leading tour guides Madison and Katy. They spent about 3 ½ hours exploring several parts of the cave with an eye to creating a commercial wild cave tour. Gee will probably do more trips for other staff members. July 15<sup>th</sup>: Bill Gee and Seth Colston returned to Stark Caverns to sketch at the far end of the Rugged Canyon passage.

Centerline survey was collected in June, so all they had to do was sketch. On the way out, they started a survey of the

lower stream level of the Rugged Canyon. This completes the upper level of the Rugged Canyon. They now need to run a survey line in the lower stream level. That will be a wetsuit trip even in very low water, a belly

crawl on cobbles. July 16<sup>th</sup>: Bill Gee, Seth Colston, Nathan Taylor and Sam Taylor attempted to push the survey of Robbers Cave in Benton Co. Nathan and Sam dropped out very quickly after going over the flowstone shield. They were not wearing wetsuits and were already cold. Seth and Bill continued on. They decided to see if there was any cave beyond the split where they stopped during the body search trip. Indeed, there is more cave - a LOT more cave! The muddy belly crawl on the right fork goes about 40 ft., then turns into hands-and-knees-height passage. The floor through there is mostly mud, not deep, with puddles of water 1-2 inches deep. Seth and Bill went several hundred feet farther. They eventually decided they were too far out for just two people in the cave. They turned around and started doing centerline with the intention of



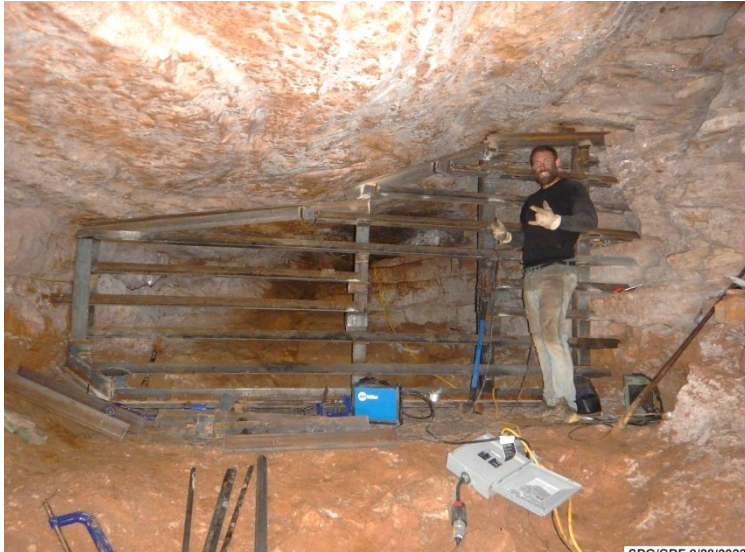
KCAG 8/25/2022

**BEN-056: Limb Line Cave**

connecting. Very quickly, they realized it was going to be a slow and very muddy slog even without sketch. Bill had a headache (bad air??) and Seth was not feeling enthusiastic, either. This was, after all, their third straight day of caving. They decided to bag the trip and headed out. They saw plenty of bat guano on the way in but not one single bat. They also saw a dark-sided salamander and a couple of larval salamanders. July 16<sup>th</sup>-17<sup>th</sup>: Jim & Julie Cooley served as volunteer gate keepers at Illinois Caverns, a wild cave open to the public by the Illinois Dept. of Natural Resources (IDNR). It is located in Waterloo, Illinois, and is ONLY open to the public, thanks to the good graces of the volunteer organized caving community; IDNR cannot afford to staff the office.



**July 18<sup>th</sup>:** Jim & Julie Cooley led a 13-person crew consisting of Andrew Erickson (Philadelphia Grotto), Peter Schnegelberger, Tom Whitby, Jarrett Whistance, Dustin Schmidt (KCAG), Richard Orr (Stygian Grotto), and



SPG/CRF 8/28/2022

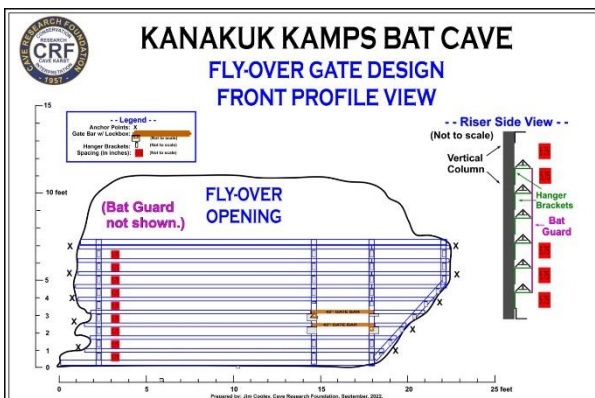
**New gate at Kanakuk Kamps**

MDC personnel Tayler MacDonald, Tracey Prenalge, Brandon Hodges, Layton Kirmse, and Dylan Buschmann into Franklin Co. Bat Cave on the Meramec Caverns property to do trash clean up and assess for colonial bat usage. Seven bags of trash were removed, but no bats were found, despite several concentrations of guano. **Aug. 13<sup>th</sup>:** Jim & Julie Cooley led a Trip Guide Training trip to Cleveland Cave. KCAGers Kristin Vogel, John Nigro, Joseph Garten, Becca Marlin, Tyler Marlin, Dustin Schmidt, Malcolm Schmidt, Corey Ellis, Kole Turley, and Zach Elliott were trained and vetted as KCAG-approved trip leaders, along with Troop 42 (Lee's Summit) Scout leaders Darren Coffman, Josh Williams

and Colby Mathews. Eight scouts and a Webelo from Troop 42 explored the cave. **Aug. 20<sup>th</sup>:** Bill Gee, Corey

Ellis, Hou Zhong spent 5.5 hours surveying low passages in Stark Caverns, a show cave in Miller Co. Gee is fairly far along now with this survey, and in fact, this will probably be the last survey trip to be done, as there are no known leads left to explore. Any more trips will be for cleanup and quality checks. The cave currently has 4,211 feet of surveyed passage. **Aug. 20<sup>th</sup>:** KCAG's novice trip leader Kristen Vogel led a nine-person novice trip to Perkins Cave. **Aug. 23<sup>rd</sup> & 25<sup>th</sup>:** Jim & Julie Cooley

discovered a new beaver cave while running limb lines around the 79-mile marker on the Lake of the Ozarks. It has been christened BEN-056, Limb Line Cave. The cave was roughly 125 feet long with a floor four feet below the Lake of the Ozarks full-pool water level of 660 feet msl. It contained two beavers and an empty 25-gallon plastic drum. The drum was removed; the beavers were not. Splash, splash! **Aug. 26<sup>th</sup>-28<sup>th</sup>:** Jim & Julie Cooley served as construction managers for the building of the gate at Kanakuk Kamps Cave #2, working under Nathan Burton, SPG president and project leader, who handled the logistics and landowner relations. Also participating were KCAG's Dustin & Malcom Schmidt, Joe & Terry Wynne, and



**Another gate for Kanakuk Kamps?**

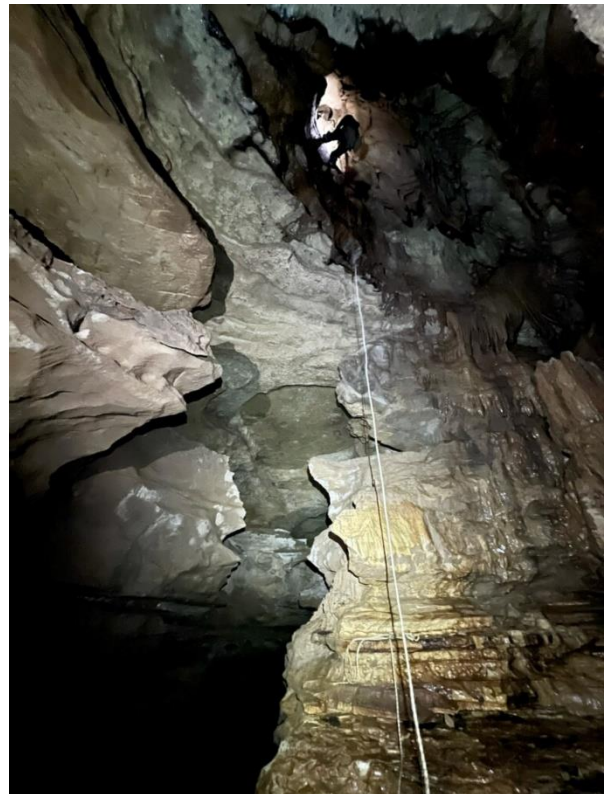
Jeff Bowman; SPG's Amy, Zach and Jacob Burton, Max White and Mark & Stephey Lago; construction helpers Bart Bradford and Cody the Welder; and Scott Morris, Kamps management. **Aug. 29<sup>th</sup>:** Jim & Julie Cooley located a site for, and measured for, a fly-over style, bat-friendly, air-flow-optimized cave gate for Kanakuk Kamps Bat Cave. The completed design will require four tons (\$10,000 worth) of steel, and was delivered to project manager Nathan Burton on Sept. 5<sup>th</sup>.-- Jim Cooley,

**A new entrance surveyed into Mystery Cave, Missouri's 4<sup>th</sup> Longest Cave. Sept. 8<sup>th</sup>:** One of the benefits of Josh Cooper and Gerry Keene, current president and vice president of the SEMO Grotto respectively, leading their beginner cave trips to the public throughout the year, is a mass infusion of new blood into the grotto. Not just new blood but local new blood with contacts and lifelong relationships with landowners. One such contact came up when a local landowner told new SEMO member, Angela Swan, about a hole on his property. On February 24, 2022, many new and old members went to the farm to start digging on a hole that moved a lot of



airflow, which was discovered on January 22<sup>nd</sup> a month previous. Josh Cooper, Gerry Keene, Heidi Asselmeier, Rob Kavaliauskas, Hunter Wenschel, Gretchen Asselmeier and Richard Young began moving rock. They began moving a lot of rock. Eventually they were able to open up the cave entrance and the smallest of the group was able to fit in (The Asselmeier's). Fast forward to September 8, 2022, the day of the last SEMO grotto meeting before the upcoming MVOR. Josh Cooper, Gary Resch and Matt Bliss returned to the cave to start mapping the cave entrance to a tie in point which appeared to be a carbide station from either Joe Walsh's or Jim Rodemaker's map of Mystery Cave. When the pit

was found, Richard Young surmised it was the dome in Red Fork passage and he was right on the money. I was not able to make it for the survey, but I was able to show up and get geared up just as Josh climbed the rope to exit the cave. I went ahead and climbed down into the 9-foot deep "pit" entrance, which is confined and constricted. Once down this climb and squeeze, a belly crawl is required to slip under a flowstone mass and pass a large breakdown slab, holding up the entire ceiling. At this point, the cave is spacious enough for a couple people and the floor then drops a few more feet. Just a few feet later, the cave breaks out and drops 35 feet to the floor and solid anchors requiring 2 carabiners were left for future explorers. In the end, only about 69 feet of new survey was added to the cave, and since Joe Walsh's trove of data has been found and scanned, I hope to be able to add this rather small passage to the dataset for the cave. In the meantime, it was fairly cool seeing a part of the cave I have not been in since December 11, 2010, when Richard and Paul Hauck took Edmund Tucker and myself into this same area of the cave. The excitement that the new blood of the SEMO Grotto definitely has me excited as this shows that there are still discoveries out there in Perry County to be made. -- Chad McCain



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**Research Committee** -Dr. Robert Lerch, Dr. Michael Sutton, Dr. Doug Gouzie and Jeffrey Crews.

**Cave Files Committee:** Scott House (Chairman), Ken Grush, Mick Sutton, Dan Lamping, and Jeffrey (Spike) Crews.

**Missouri Speleological Survey - Fall Meeting 2022**

**Date and Location: October 1<sup>st</sup> & 2<sup>nd</sup> at Rock Bridge Memorial State Park in Columbia, MO**

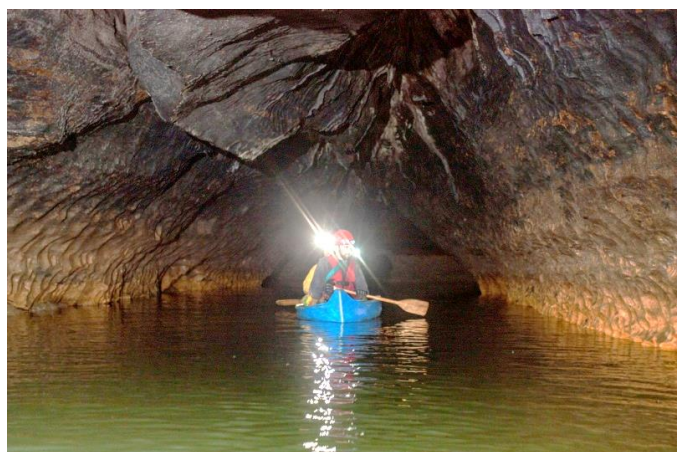
- Saturday, October 1st - Mapping work in Devil’s Icebox Cave BNE-001.
- Sunday, MSS Board meeting at 10:00 AM at the Maintenance Building.

**Project:** Jeffrey Crews has been leading an effort to improve and expand upon the existing map of Devils Icebox. But with very limited access to this cave, it has been slow going, so we're trying to get as many teams into the cave as possible. Trips into Devils Icebox are heavily weather dependent. If there's threat of rain or if it rains the night prior, we may have to pivot and do cave monitoring in Three Creeks Conservation Area as a back-up based upon an approved work-list from MDC.

**What to expect:** Devils Icebox is one of Missouri's great caves with over 6 miles surveyed. Much of it is large stream passage. The first half mile of this cave is water, often very deep, requiring use of a kayak or low-profile canoe so please **bring a canoe or kayak and PFD** if possible as the park will not have enough of either. You must be capable carrying your boat up-hill about a quarter-mile, partly on a narrow boardwalk with railing. Due to rocks and portages within the cave inflatables are not acceptable. Any boats must be able to fit through the “low spot”, so a big ol’ aluminum canoe will not work. Also, proper footwear will be your ticket to enter Devils Icebox. **The Park requires 3/16” lugs** on the bottom of your boots.

To be sure in advance that your boat and your footwear will both be acceptable you may send a photo to [roxie.campbell@dnr.mo.gov](mailto:roxie.campbell@dnr.mo.gov) This is recommended if you want to assure that your gear meets the criteria.

**Camping:** Two campsites have been reserved free of charge. Center of operations and primary camp will



be at the Maintenance Building near the Park Entrance (**38.88424, -92.33143**) and includes a fire ring, one flusher, a shower, fridge and microwave. A second campsite, at the Special Use Area (38.86764, -92.30061), has no water but includes 2 vault toilets, 2 fire rings and ample level areas. Parking for the cave is conveniently located between these sites (38.87470, -92.32455).

Maps of the Park and its trails will be available and can also be found on line.

Good news...cave chef Kirsten Alvey-Mudd will be offering a **breakfast bar** both mornings.

To get onto a survey crew for Devils Icebox, RSVP to Rita Worden [wordenrl2323@yahoo.com](mailto:wordenrl2323@yahoo.com) (that's an "L", not a 'one') and include whether you're bringing a boat, PFD and survey tools. –Dan Lamping, MSS President

**Missouri Speleological Survey - Spring Board Meeting Agenda**  
**Sunday, October 2, 2022 at the Rockbridge State Park maintenance shed**  
**Board meeting begins at 10:00 AM**

**Administrative Business**

- Roll call – Officers and Board
- Secretary's Report and approval of last meeting's minutes – Alberta Zumwalt
- Liaison – Gary Zumwalt
- Treasurer's Report – Don Dunham
- *Missouri Speleology* – Don Dunham

**Old Business**

**New Business**

- Elections for President and Vice President

**Projects and Announcements**

- Cave files Committee
  - *USACE data agreement*
  - *Shawnee and Osage via USFS*
- Agency Reports
  - *Mark Twain National Forest*
  - *Ozark National Scenic Riverways*
  - *Missouri Department of Conservation*
    - *permits now through CRF*
  - *State Parks*
  - *Others*
- Affiliate Organizations Project Reports
  - Carroll Cave
    - 21 miles
  - Berome Moore Cave
    - Dive connection and dog rescue
  - *Others*
- Public Outreach
  - Facebook & Website

**Next meeting**

**Adjournment**

