

THE MSS LIAISON

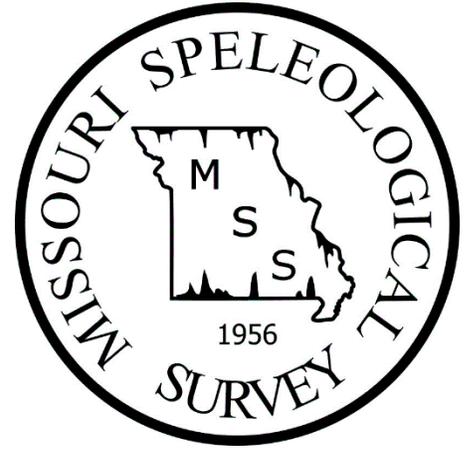
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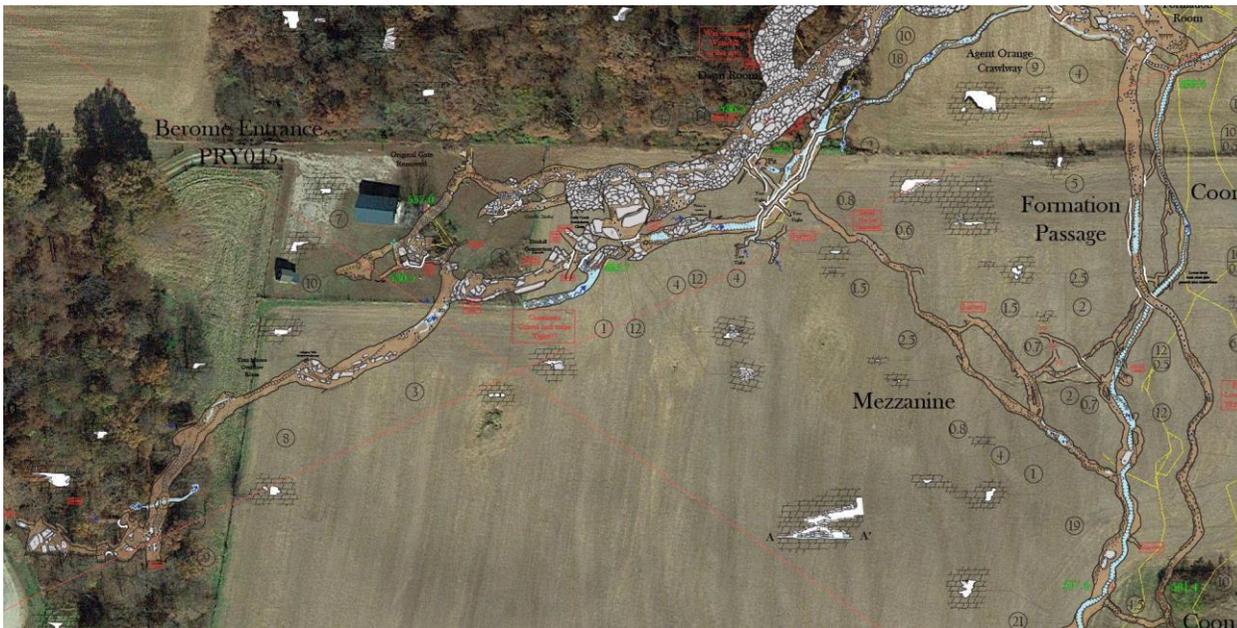
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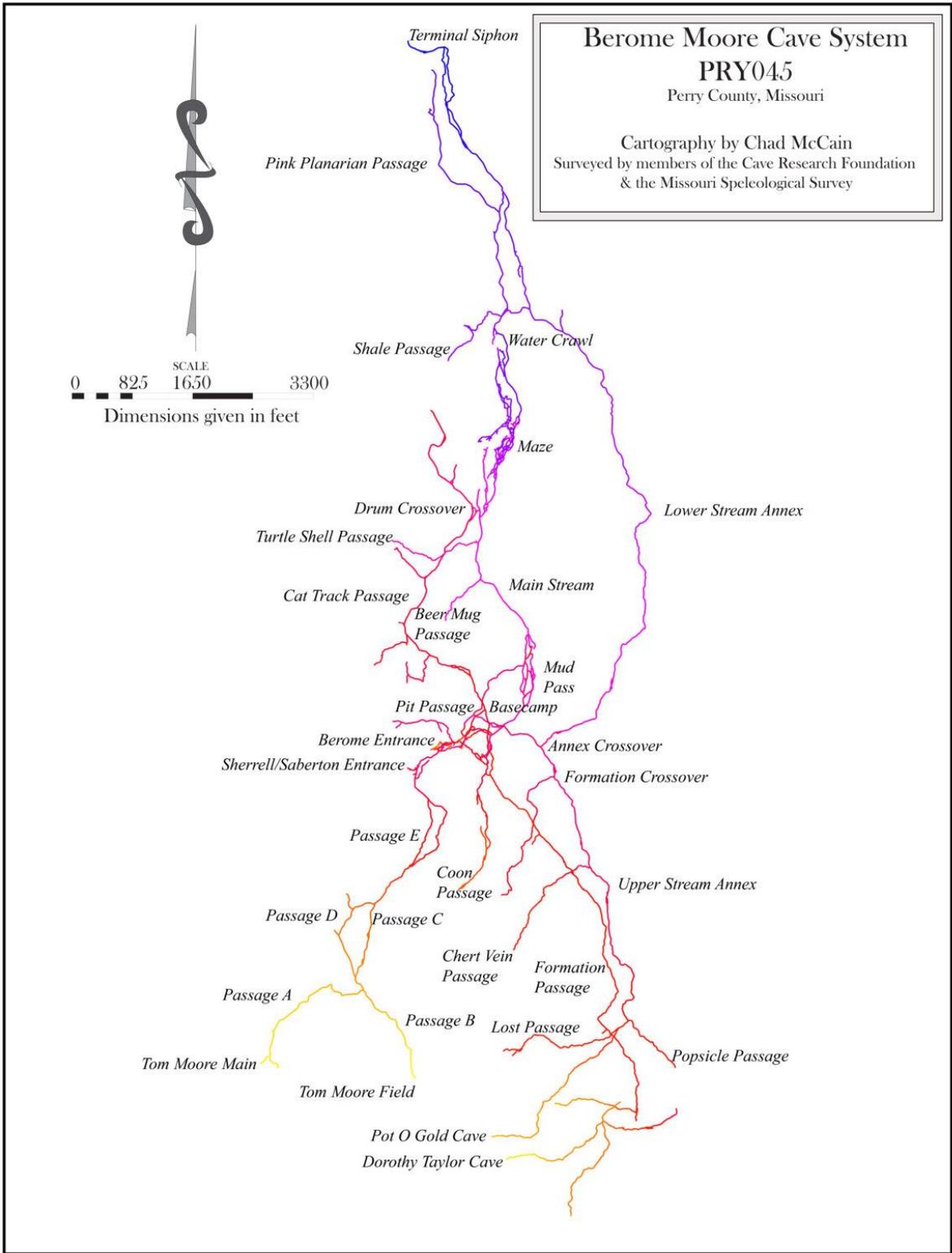


Missouri Speleological Survey | President's Message April 2018 by Dan Lamping.

The spring 2018 MSS meeting is approaching quickly. The meeting will be held at the Lloyd and Ethel Hoff Underground Nature Preserve atop Berome Moore Cave in Perryville, MO on Sunday, May 6 at 10:00 AM. While the meeting is Sunday morning, the event is weekend long with survey trips going into Berome Moore Cave on Saturday. There are quite a few objectives, going to several parts of the cave, so we can field large crews. All of the trips will be to support cartographic efforts as considerable progress has been made on the map over the past year and a half and we want to keep it going. Given the timing of the event, the weekend has taken on the theme of "Sinkhole de Mayo." This means tacos. As a joint fundraiser for the MSS and MCKC there will be a taco dinner on Saturday night with a minimum donation of \$10. While we're not currently hard up for money, the MSS did do away with membership dues a while back, so we don't really have a steady income source. Rather than waiting until we're in absolute need, we're being a bit proactive here. Hopefully some noble souls will notice the deficiency in this plan and accordingly pack the necessities for margaritas to share.



Above: MCKC owned entrance to Berome Moore Cave.



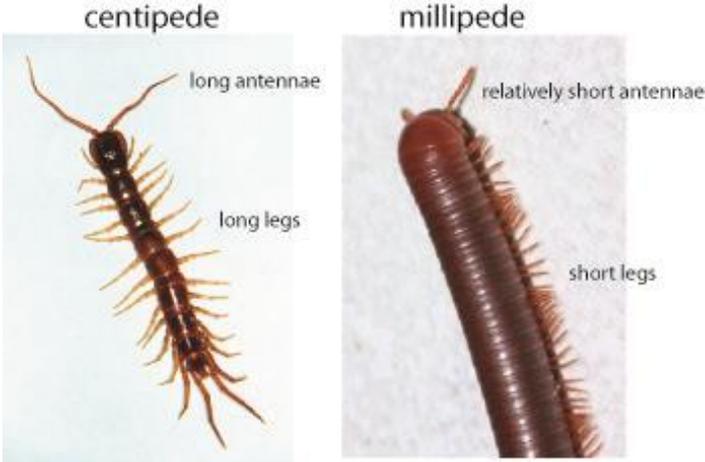


Above: Berome Moore Cave on the left and Crevice Cave on the right. While difficult to get to, the leads in Crevice are blowing and still going.

Identifying Cave Life: Part 4 – Centipedes and Millipedes by Mick Sutton.

This is another in an occasional series to help those doing cave monitoring, or who are just interested in knowing what they are looking at, to be aware of what can and cannot be realistically identified in the field within Missouri caves.

This time we'll look at long, skinny terrestrial bugs with lots of legs – the centipedes and millipedes. First off – how do you tell the difference? Despite the names, centipedes do not have a hundred legs, and millipedes do not have a thousand, but the number of legs does help (you will need a hand lens). Millipedes are well endowed with legs, partly because they have two pairs for each body segment, typically 20-30 segments or 40-60 leg pairs for an adult. Centipedes can have from 15-30 segments but have only one leg pair per segment. The most striking difference then is that centipedes' legs are fewer but they are also a lot longer. Centipedes also generally have much longer antennae. So the basic rule of thumb is: short legs/ short antennae = millipede, long legs/ long antennae = centipede. Also note the hindmost legs projecting backwards on the centipede – you will never see anything like this on a millipede.



An important point to remember is that there are very few cave adapted centipedes – almost all of the ones you see underground in Missouri will be accidentals and will be within easy reach of an entrance. There is an



Scutigera coleoptrata
Photo: Filip.vidinovski

interesting exception – a *Garabius* sp. that appears to have at least one troglophilic population in Missouri. This is a small centipede that is found deep in Great Scott Cave in quite large numbers; the species is also known from Powder Mill Creek Cave, but little is known of its situation there. It's likely that centipedes, predators all, can survive as troglobionts only in very nutrient enriched caves such as Great Scott, where potential prey populations are large. If you do happen across a small centipede in a deep cave site, this would be of considerable interest, and I'd like to hear about it. By far the commonest centipede you will come across is the common house centipede, *Scutigera coleoptrata*, with fifteen pairs of exceptionally long legs. Other common species include *Bothropolys multidentatus* and *Neolithobius* sp., which also have fifteen pairs of legs but they are not as long. These two are not easy to distinguish in the field,

and can also be confused with several other less common species.

Millipedes do have quite a diversity of cave adapted species, with four troglobionts known from Missouri, and possibly several others as yet undescribed. They are all small (see photo) and white and are not easy to distinguish, although you can make some headway with a hand lens or a macro camera setting. One species, *Tingupa pallida*, is common and widespread, the other three are uncommon. You might be able to hazard a good guess at which one you have if you have a reasonably sharp photo that can be blown up. First count the number of body segments – more than 30? It's probably *Zosteractis interminata*. Thirty or fewer segments? Look to see if there are prominent little spikes (setae) sticking up on the back – if so you probably have *Causeyella dendropus*. Otherwise it's either *Tingupa* (more likely) or *Chaetaspis aleyorum* (much less likely as it's so far known only from Tumbling Creek Cave). In any case, these identifications are tentative; confirmation would require a collection permit and a microscope. All four are found in food rich areas – guano, flood debris, damp wood, etc.



Photo: Ken Grush



***Tingupa pallida*. Photo Jim Cooley**

You are also likely to encounter less cave adapted pigmented millipedes – unfortunately, many of these are invasive alien species which can occur in spectacularly large numbers. Various species from the family Polydesmida are dark colored and cylindrical while the commonest alien, the greenhouse millipede *Oxidus gracilis* is more flattened and has pale edges to the body segments. These pests sometimes undergo a population explosion and can be seen in the hundreds dead and dying in cave pools and streams. Another easily identified accidental is a more inspiring sight – it's the native giant American spirobolid millipede, *Narceus americanus*. These are giants of the millipede world, up to 12 cm long (!) with pretty orange and blue/ gray banding and dark red legs.

To confuse issues, there are also some native troglophilic species which are pigmented and not easy to distinguish at a glance from the invasive aliens. The most widespread of these is *Auturus evides*, found throughout the Ozarks. Another very common species within its range is *Austrotyla specus*, which occurs in large



Oxidus gracillis. Photo: Joseph Berger



Narceus americanus. Photo: Jud McCranie

numbers in the sinkhole plain caves of Perry, Ste. Genevieve and Franklin Counties, and is also occasionally found in Ozark caves. Unfortunately, distinguishing the pigmented millipedes, other than the two illustrated above, is beyond the scope of the casual observer. Still, you are now hopefully better equipped to at least make some educated guesses as to what you are seeing.

Missouri Speleological Survey Files Report for March 2018. This report covers a CRF trip to Barry County where 8 cavers converged to update the database with monitoring data, descriptions and survey. See Jonathan Beard, Scott House, Mark Jones and Mick Sutton for some of the activity. Remember if you have new information on any Missouri caves, my email address is slagrush@gmail.com . And my apologies if mention of your submission isn't here; been busy. **Jon Beard sent:** An update to the SWMO cave database. He sent over 120 Main Table entries, 135 faunal records and 5 new cave reports in Christian County. The new Christian County caves are Spring Box, Cross Joint, Sayornis Only, Medlock Hollow and Frost Wedge Caves. -4 new maps for Angular Cave, Right Angle Cave, Powerline Cave and Tabor Shelter, all in Christian County. -Several scanned copies of the Ozarks Underground. By the time he is done the MSS should have a fairly complete collection of newsletters representing HOG and OHG grotto newsletters and the reporting of early SWMO caving covering the last 2 decades of the 20th century and the start of the next. SPG has always published electronically and was readily captured earlier with the assist of Maria Thompson and me, now a member. The SPG publication is well worth the membership. Follow-up: there are now 90 issues of the OHG Ozarks Underground in the MSS Newsletter archives. I believe there are only 4 potential AWOL numbers: volume 15 number 01, the last 3 numbers of volume 16, numbers 2-4. Any help out there for these 4 OHG newsletters; happy to scan and return to the contributor?? -3 new maps of Pearl Cave, Sedum Shelter, Tiny Tube Cave, all in Barry County. -An abundance of changes and additions to the cave database including 15 monitoring forms, 51 faunal records and 5 caves with main table changes to the database, most of these changes were in Barry County, the rest in Christian County. -3 new maps from Christian County: Cross Joint (83 ft long), Hidden Cave (51 ft long) and On Point Caves (27 ft long). **Jim Cooley sent:** A report on a lead picked up off the Missouri Cave, Mines and Rock Formations Facebook page. Turns out the lead led him through his contacts and project work on Cloud 9 Ranch and, with a little misdirection, eventually led to verifying 3 known caves in the database. At least, all caves were updated with GPS and 2 with photos. Just took a little coordination of effort between MDC, Fish and Wildlife Services and Corps of Engineers (USACE); no mean trick! **Brenda Goodnight and Dennis Novicky sent:** A report, via Scott House, on Whiskey Cave in Shannon County along with photos and fauna records. **Eric Hertzler sent:** A new map for Hog Pen Cave (1312 ft), the longest MTNF cave in Christian County besides one other that he is working on and is confident will surpass it for length. **Gary Johnson sent:** An extended profile to go along with his preliminary map of Vanderman Cave in Hickory County. Gary says at "1150 feet long...(it is the) third longest

in Hickory County. Could catch Clymore Cave (@1250 ft.) and move into position number two.” **Mark Jones sent:** Over 500 photos of his late 2017 and early 2018 cave trips in Missouri including many from the Barry County expedition. He also included his 8 reports on the caves visited during the expedition. **Scott House sent:** 3 new maps for Honeycomb Cave and Crack Cave, in Oregon County, and then Bay Branch Arch Cave in Shannon. The last cave was remapped and provides an updated interpretation on the previous 1980 version; also provides a new view with an extended profile that explains the connections between the arch and the rest of the cave. Cave and arch do share a common dripline. -6 new maps for A Peeling Ceiling Shelter, Creep Block Cave, Mossy Oak Cave, Slabby Shelter, Tufa Mound Shelter, and Upper Piney Creek Shelter, all in Barry County. All related records such as Walls, Sketch, Survey notes, and Illustrator files were submitted for the archives too. -The new map of Little Jayco Cave in Carter County. The old map was made in 1990 and only amounted to about 50 ft of survey. In January, Brenda Goodnight and Dennis Novicky went to monitor the cave and Dennis pushed a bit farther than the 1990 survey. Cave now stands at 397 ft after the duo went back and surveyed a mostly walking passage after a tight squeeze. -A new map of Little Daveys Hollow Cave (50 ft) in Shannon County. **Dan Lamping sent:** A preliminary update on the plan view map of Fluted Rift Cave in Ste. Genevieve County. To see all 1665 ft of this cave’s passage you need to negotiate 200 ft of vertical relief and to go on a diet! The cave features a 7 inch vertical squeeze! And now before the deadline for this publication he sent the final map including profile that portrays the multiple drops in the cave. -A new map of Treasure Cave in Shannon County; survey length is 80 ft. There are 6 caves with Treasure in their name in the database. Lots of false rumors of Spanish treasure and Civil War treasure in Missouri history. My favorite legend is from the hermit living in a very rundown shack who knows exactly where the treasure is buried. What’s wrong with that picture? We have more to hear from this Treasure Cave though; a second opening high in the bluff couldn’t be reached and will need a return trip, this time with a ladder. **Joe Light sent:** -Report on a sinkhole developing near a residence in St. Louis County. Joe was able to mount a video camera on a stick to explore a passage that no man will ever enter! Turns out to be a solution joint that takes on water, but is just too narrow to enter. Fine reporting on the karst in St. Louis. -Report including GPS location and ownership for Crankshaft Pit in Jefferson County. It is always good to capture a GPS location, it helps verify the existing data in the file. Remember to include the datum, these days I’ll assume UTM83/84NAD if you don’t provide it. For the most part, the MSS has used UTM27NAD because most of the topographic detail was created before the 1980s North American Datum. **Alex Litsch sent:** 2 new cave reports and photos for Ste. Genevieve County: Mossy Pit and Little Flowstone Pit. - Report #26 on survey activity in Gegg Cave, Ste. Genevieve County; came via Chad McCain. -3 new caves for Ste. Genevieve County: Crusty Branch Cave, Slimy Pit and Sinkhole City Cave. With the same email, Litsch also sent a report on Bauman’s Great Wall Cave assessing the impact of recent rains while also adding 2 faunal records for the cave. Later, he sent 11 photos for 2 of these caves and one other cave. **Adam Marty sent:** -4 of his original, 1985-1989 vintage sketch maps, including Bailey Pit in St. Louis City and Ordnance Room Pit in St. Louis County. A Bailey Pit map actually existed in the archives, but considering the maps were made 13 years apart, there are some differences worth noting, including a missing passage on the more recent edition. The other 2 maps are for Twin Hollow Cave in St. Louis County and Baumgartner Pit in Jefferson County; however these were not recognized in the database and appear to be new. All maps initially came through Jim Sherrell, but I had to work with Marty to acquire locations for the database for the new caves. Still working on one of the locations, apparently a home was built over one of them! **Chad McCain sent:** -1 new cave report for Ste. Genevieve County: Hole in the Wall Cave was noted when a sinkhole clean out was organized by Alex Litsch. -The Walls (cave survey) file for Boone County’s Devils Icebox Cave (sorry omission from last Liaison report). -An email containing monitoring comments on 5 different caves in Crawford, Iron and Reynolds County: Reno Cave, Blackjack Crack, Eagle Cave, Cooks Cave and Birds Nest Shelter. Well Blackjack Crack isn’t quite a cave as Chad found when he started to sketch the feature; it seems to be more of a karst feature that takes on quite a bit of water and runs for over 560 ft along the surface. It’s a feature that needs monitoring. -4 new cave reports in Ripley County: Throne Room Shelter, Charred Cave, Folded Shelter and Thin Wall Cave. And he surveyed them too; maps in progress! -5 new caves scattered in 3 different counties: Pigeons Roost Cave in Boone County; Sunburst Shelter in Callaway; and three in Ste. Genevieve, Winebarger Cave, Saline Creek Cave and Trappers Den Cave. There are lots of caves that go unreported, even many that are in our database have minimal reporting on them. -Field notes from recent survey trip into Berome Moore in Perry County, in the Upper Stream

Annex. This isn't easy survey, team collected 1256 ft of survey in 13.5 hours; kudos to Mark Brooks, Tim Morgan and Brian Biggs. The remap of Berome is a huge effort involving lots of caver-hours; kudos to all. Latest push is to connect nearby Dorothy Taylor Cave with Berome which should place Berome securely in second place in the state for cave length. Recently Berome outpaced Carroll Cave which certainly has additional footage but requires in cave camping to reach distant survey points. Three survey books of sketch and notes were submitted to the archives for Berome also. -6 pages of both book and sketch from Dorothy Taylor Cave in Perry County that he dug up from 1987. Stan Sides was on the original trip and provided copies? -A forwarded message from Mark Brooks on his recent survey trip to Popsicle Passage in Berome Moore, this was a resurvey that surprisingly "near matched the original survey, shot for shot and ended within a few feet of each other." The trip report was captured for the report section of Berome Moore. Perhaps it is an unfair accounting since all filed reports aren't in the electronic files, but as it stands now Berome Moore is second to Carroll Cave in number of reports in database; Black Fathom and Crevice Cave come in third and fourth. Not too surprising that our top 3 longest caves happen to have the most reports. -His Walls file database for Berome Moore. It's nice to share digital files with the archives if for no other reason than to have backup data available. **Jessica Self sent:** -Trip report, monitoring form with at least 11 faunal records on Merrell Cave in Pulaski County. **Jim Sherrell sent:** -Via Don Dunham, a few pages from a 1949 PhD dissertation that mentions 2 caves, Bust Branch Cave in Washington County and Glauber Cave in Jefferson County. Glauber Cave has a nice description but Bust Branch, so far, is only a photo caption with a location. As long as Glauber has been around, it had minimal information in the database and lacked this dissertation. After a few phone calls and a cave trip, we know much more about this cave and have a much better location that previously noted. **Mick Sutton sent:** -Use Monitoring forms on both Bounds Branch and BB Spring Cave in Shannon County. -36 faunal records with the majority in Barry County but the rest in Bounds Branch Cave and BB Spring Cave. Some of these faunal records are part of the recent CRF project to update the cave files in Barry and to map the caves that have not previously been mapped. See also Jon Beard and Scott House's work in Barry. -A map of Argillaceous Cave in Barry County. The \$5-word just means clayey. Had to be a geologist submit the cave name, Ben Miller? **Craig Williams (CAIRN) sent:** -3 monitoring forms and 9 faunal records for Boulder, Overhang and Crooked Creek Caves in Iron County. As simple and easy as these forms are to fill out, these 3 were the first for these seldom visited caves. (Although in fairness, previous monitoring may have not been recorded electronically.) The monitoring form provides a benchmark for the activity and visitation related to caves that are managed by the agencies (MTNF, ONSR, DNR, MDC, etc), but can just as easily be used for private landowners. The cave database can benefit from every cave trip if one of the visitors would take the 5-10 minutes it takes to check some boxes and flag any obvious signs of visitation. There's room for any kind of notes, in particular verification of GPS locations with coordinates and the datum used.—Ken Grush

Middle Mississippi Valley Grotto (MMV). Mar. 3rd - Rick Haley and Aaron Addison did a survey trip into Foglepole Cave (Illinois). The purpose of the trip was to do some resurvey to close loops down Mainstream Passage. Another group did a bio-survey in the cave looking for Springtails. **Apr. 1st** - Doug and Michael Leer checked out a cave entrance in Rockwoods Reservation. The cave is located in a slot above some large rockfall. Only a quick look could be done as they were not equipped. Michael returned a couple of days later with a flashlight and determined that it goes in beyond the light zone but it is probably small as are most caves in the area. A return trip is necessary to do a final determination. After some research, it was determined that this cave is not registered in the MSS cave database. A report will need to be filed for this. **Apr. 12th** - Doug and Michael Leer and Don Dunham checked out Lewis Cave in Jefferson County near Valles Mines. Mr. Lewis had requested someone to check out the cave. He had previously done quite a bit of digging at the site to open up the entrance. The cave is located on a steep hillside leading down to a creek. It is a small cave with the entrance passage leading to 4 small holes connected to a single room with a pinch passage to the back of the cave which has air but way too low to enter. Two tri-color bats and a cave salamander were observed. There are a couple of springs nearby. One contains a large amount of watercress and the other is coming out of the base of a bluff but is choked with large boulders. This cave is in the database but needs a GPS location. That was obtained and the file will be updated. **Apr. 7th – 8th** - MMV Grotto hosted members of the Windy City

Grotto at the Berome Moore Cave property. The Windy City Grotto members totaled 14 and were mostly newer cavers. MMV Grotto members attending were Michael Leer, Dane Driskill, Laura Belarbi, Jason Hanewinkel, Ioana Herte, Mark Wheatley and Chip Arnold. There were three trips on Saturday into Berome Moore and one trip on Sunday into Tom Moore. On Saturday, Mike Leer led 4 WCG members plus Mark Wheatley & Daughter on a 3 hour loop trip via Gypsum Passage, Mainstream and the Dawn Room with a side trip to the Formation Room for a look at the large bacon. Jason and Ioana led 5 WCG members on an 8-9 hour trip down Mainstream to the Walker Loop. Laura and Dane led 4 WCG members on a 4-5 hour trip down Formation Passage. On Sunday, Mike, Laura and Dane led 6 WCG members into Tom Moore Cave via the Tube entrance and upstream via the main passage. Some Grotto Sculpins were observed. They eventually exited out the Barnyard Sink entrance. Chip Arnold did some rock work in the Entrance Passage to make the trail safer. The Windy City Grotto served a delicious taco dinner on Saturday night to all attendees. The weekend event was a giant success.—Doug Leer

Lake Ozarks Grotto (LOG). **Mar. 15th** – Klaus Leidenfrost, Gary & Alberta Zumwalt pumped approx. 16 ft. of water from the Goodwin Cave entrance, taking all day and the use of two pumps. **Mar. 17th** – Fourteen people met at Jacob's Cave, Versailles, to explore a restricted private landowner cave, only to find the water level too high to enter. Back at Jacob's, exploration was done in the Maze where bones have been found. Those attending were: Ethan Haslag, Ken Long, Christen Easter, Abby Peper, Darren Donley & Sebastian Williams, Cliff Gill, Kerry & Kira Rowland, Gary & Alberta Zumwalt, Steve Atteberry with Robert Williams, Raychel Ely, Jacob & Casey Crawford. One frog and one bat were seen. **Apr. 10th** – The grotto's first meeting of the year netted 14 members and 2 guests, held at our new meeting place, Stark Caverns, Eldon, MO. The program was pictures from the February and March grotto cave trips, shown by Gary Zumwalt.—Alberta Zumwalt

Meramec Valley Grotto (MVG). **Apr. 19th** - Chad McCain mapped and documented the petroglyphs at Sunburst Shelter Cave in Boone County. **Apr. 7th** - Tony Schmitt took Joe Light, Alex Litsch, Matt O'Neal, Jackson Eberle and MSM Grotto cavers to Crankshaft Pit. The MSM had their first in-cave vertical experience on this trip. **Mar. 31st** - Alex Litsch and Chad McCain assisted a landowner in put a cattle guard in front of a cave entrance. Later they visited another cave on the property that was taking on more water than usual to see how the stream looked. The landowner peeled back an artificial debris plug making a 50' vertical entrance above the cave horizontal entrance. They also discovered more Big Brown bats than what had been noted prior. They finished the day by ridgewalking in southern SGE County and turned in 3 new caves. One of which was short, but very well decorated. **Mar. 19th** - Alex Litsch led Gary Resch, Derik Holtmann, Jeff Fennell, and Caro Ludwig into the far upstream reaches of Gegg Cave to survey. The crew obtained over 600 feet of survey and pushed the total cave length over 4 miles. **Mar. 11th** - STL Today published a news article about caving that featured many MVG members. **Mar. 10th** - Rick Haley and Aaron Addison did resurvey in Foglepole Cave in Illinois. **Mar. 14th** - Chad McCain turned in 3 new caves in SGE. **Mar. 3rd** - Alex Litsch ridgewalked in southern SGE and found 2 new vertical caves and 1 new pit on private property. **Mar. 1st** - Alex Litsch started a caver based stream team as a result of the large cave cleanup conducted earlier in the year. Stream team 5713 "Missouri Caves and Karst Cleaners" is available for all cave cleanup needs. Mostly MVG members are part of the team, but it is open to all. **Mar. ?** - Mateo assisted in small cave work in PETAR State Park in Brazil. **Mar. ?** - Gary Hart and Deb Hart visited Cueva de Vaca, Cueva de San Thomas, and Cueva Rio in Cuba.—Alex Litsch

Springfield Plateau Grotto (SPG). **Mar. 4th**—SPG's annual biology trip to Sequiota Cave (Greene Co). Participating were Casey Scarlet, Sasha Rhea, Brian Moore, Eric Hertzler, Jake Colvin, Treavor Bussard and Dave Ashley and Tyler Skaggs. Boats were taken the first 600 feet into the cave where they were then beached and the cave's two separate stream passages were monitored for stream biota. This was our 10th year of doing this after a city utilities water main broke causing a massive influx of sediments into the cave's east passage. The sediment, which is peanut butter consistency, wiped out the habitat for the cave's bristly cave crayfish population. The biology trips have been conducted to record the cave's slow recovery from this event. The crayfish was once very abundant in the east passage, but since we have started this project, less than 10 have been seen. Also noted on our trip today was a strange oil slick that was oozing out of the cave clay in the north

passage. Along with the ooze was a strong petroleum smell. This stream passage is a piracy of Galloway Creek. We usually smell a faint gasoline smell every year in this passage, and Eric has always suspected that the gas station at Battlefield and Lone Pine is to blame. This is the first time they had seen the oozing oil substance. A great time was had by all. Thanks to the Springfield Park Board for allowing them to use a john boat today and to Treavor for heading up the trip. Also to Dave for helping to identify critters. Thanks to all that came out and helped including Tyler who came all the way from Houston. **Also**—On the way back from teaching cave map drafting in Kansas, Jon Beard stopped by to do some photography of the entrance area of Schermerhorn Cave (Kansas), the longest cave in the Kansas Ozarks. **Mar. 9th**—Jon Beard was assisted by David Duncan in the survey and monitoring of Redbud Crawlway Cave, Angular Cave and Power Line Cave (Christian Co) as part of CRF activities in Mark Twain National Forest. Redbud was initially documented in 2004, the others are recent additions. Angular was blowing air like nobody's business, indicating there is more cave beyond a tight squeeze (doable by a motivated thin caver). No bats were seen, but diminutive Redbud, the shortest cave of the day, had the most fauna—two cave salamanders, mosquitoes and offerings from raccoons and wood rats. **Mar. 10th**—Dillon Freiburger was assisted by Jon Beard in the continuation of the survey of Rattlesnake Cave (Christian Co) in Mark Twain National Forest, a CRF project. In wetsuits, they mopped up survey in the first third of the cave, mapping the middle portion of the cave extending the map to 500 feet including two short but low water crawls. At the end of the day they found another 300 feet of cave to be mapped at a later date. **Mar. 15th**—The CRF was busy in Mark Twain National Forest in Barry County for four days of monitoring and mapping caves. Jon Beard began his part by monitoring and mapping Sedum Shelter, a large half-moon shelter with a small crawlway cave passage that ended in a flowstone blockade. Afterwards he checked the cave gates at Radium Cave to assure they were in good shape. He finished his day mapping and monitoring Tiny Tube Cave, another impressive shelter with a long, narrow crawlway. **Mar. 16th**—The following day, three groups of CRF cavers were busy. Six caves were targeted in the head of one hollow. Scott House led a group consisting of Sue Hagan and Ken Grush starting at one end mapping Tufa Mound Shelter, Slabby Shelter, Creep Block Cave and A Peeling Ceiling Shelter while Aaron Thompson, Matt Bumgardner and Jon Beard started at the opposite end monitoring Sweet Potato Cave, mapping Pearl Cave and then moving on to a nearby area to monitor Onyx Cave, then further along to monitor Sugar Camp Cave, Sugar Camp Shelter, Mammoth Shelter, Skylight Shelter and lastly Twilight Rimstone Cave. **Mar. 17th**—Day three of Barry County CRF mapping for SPG cavers was the survey of Coincidence Cave. Jon had previously crawled through 200 feet of the cave. However, by the end of this day, Dillon Freiburger, Matt Bumgardner and Jon Beard had surveyed 400 feet, some of which is accessed through very low squeezes. Dillon checked out a mazy section ahead and concluded there was much passage remaining to be mapped with no end. Perhaps one more mapping trip to finish? **Mar. 18th**—On the way home, Aaron Thompson, Dillon Freiburger and Jon Beard monitored Chimney Rock Cave, noting vandalism and fauna including three species of salamanders. **Mar. 24th** --Dillon Freiburger led a survey trip in the Subway Passage of Wind Tunnel Cave, Stone County Ark., adding 230' of new passage to the survey. **Mar. 25th**—Treavor Bussard and Jon Beard surveyed and monitored four minimal caves in Mark Twain National Forest on behalf of the CRF in Christian County. First up was Hidden Cave. The two took turns sketching, Jon the entrance area and Treavor the terminal crawl. Then the two hiked to Collapsed Dome Cave. While Treavor sketched, Jon searched for fauna. The third cave on the agenda was On Point Cave where Jon sketched. Lastly, they began the survey of Pine Holler Cave with Treavor sketching. All but the dome room area was mapped, saved for next time. **Also**—Chris Lewis led a small group of anthropology students through Crystal Caverns (Barry Co). Twelve salamanders, four pickerel frogs and four pips were counted in the cave. **Mar. 26th**—Jon Beard accompanied five agents from the Missouri Department of Conservation to discuss and measure a new gate for Jolly Cave (Newton Co). The 1,000-foot cave has had a substandard set of steel doors that vandals have often breached. **Mar. 30th** - Aaron Thompson and Dillon Frieburger monitored newfound Leatherwood Surprise Pit and also found 4 new caves while ridge walking that day, Carroll County Ark.--Report by Max White, Materials provided by Jonathan Beard and Dillon Frieburger

Kansas City Area Grotto (KCAG). **Mar. 6th-9th** -Jim Cooley and Ken Grush ridgewalked on private property, completed the survey of one pit cave (map shown below), surveyed a second pit cave, and flagged trails to other caves on the survey queue. George Bilbrey assisted in the survey of the pit caves. **Mar. 24th -25th** - Jim Cooley

steep hill required to reach this cave, while delivering the steel and gating equipment. Incredibly talented bulldozer operators saved the day. Other complications during this project included record low temperatures and a pipe bomb that we found at one of the cave entrances (already detonated), which still required the intense attention of both MTNF law enforcement personnel and explosive experts. Actual construction of the Butler Hollow gate occurred Apr. 11th- 12th, fortuitously allowing bulldozer extraction of the gating gear and generators by end of day on the 12th and its placement at Sugar Silver Cave. This timely extraction was fortunate, because the torrential rains late in the afternoon on the 13th would have trapped the gating gear at the Butler Hollow adit entrance for several days. Work on the Sugar Silver gate began first thing on the 13th and finished on the 15th at 2:30 p.m. Cavers involved in the various phases of this project included Kirsten Alvey-Mudd (Missouri Bat Census), Jay Bridgewater, Jim Cooley, Julie Cottrell, Adam Marty, Art Medley, Nicole Ridlen, Jim Weese and Joe Williams. We were assisted throughout the project by four excellent, hard-working Americorps volunteers who had been contracted by MTNF. Thanks to our two talented chefs, the team ate like royalty; and thanks to the four dedicated Americorps chain-sawyers, the team gratefully enjoyed a big, rip-roaring bonfire every night for the duration of the project. Lastly, Jim Cooley continued to complete and turn in cave maps, including the map of Silver Cave.—Jim Cooley

MSS OFFICERS.

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Ozark Caving web site– www.ozarkcaving.com **MCKC website** – <http://www.mocavesandkarst.org>

Caves of Missouri Discussion Group – <http://groups.yahoo.com/group/cavesofmo>

Petroglyphs, inscriptions, & pictographs: rockartmo.com

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

CALENDAR:

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

June – MCKC meeting

July 1st – Next MSS Liaison deadline

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

Missouri Speleological Survey

Spring Board Meeting Agenda

May 6, 2018

Lloyd and Ethel Hoff's Underground Nature Preserve - Perryville, Missouri

Hosted by Middle Mississippi Valley Grotto and Missouri Caves and Karst Conservancy

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

Projects and Announcements

- Cave files / Database
- Agency Reports
 - *Mark Twain National Forest*
 - *Ozark National Scenic Riverways*
 - *Missouri Department of Conservation*
 - *State Parks*
 - Others
- Affiliate Organizations Project Reports
 - Carroll Cave
 - Berome Moore Cave
 - Others
- Public Outreach
 - Facebook & Website

Next meeting & Adjournment

