



**Minutes of the Kansas City Area Grotto  
September 2023 Business Meeting  
Tuesday, September 19<sup>th</sup>, 2023 – 6:30 to 8:30 P.M.**

**Meeting held at the Anita B. Gorman Conservation Discovery Center,  
a Missouri Department of Conservation facility at 4750 Troost, Kansas City, and via Zoom**

The meeting was called to order at 6:30 p.m. by grotto president Bill Gee. The following members and guests were also present: Joe, Lisa, Josh, Jim and Julie Cooley, Corey Ellis, Matthew M. Hernandez, Rick Hines, Laura Jaynes, Peter Schnegelberger, and Kristen Vogel.

**Officer Reports:**

**President:** Bill Gee started the meeting off by giving two presentations, one on the  $\pi$ -Pistrelle Bat Detector and the other on an Air Quality Monitoring device. Please see the information regarding the presentation below.

**Vice President:** Dustin Schmidt was not present, so no updates were discussed.

**Treasurer:** Jim Cooley informed everyone on the current balances across all accounts as of September 9<sup>th</sup>. \$3,256.50 (Commerce Bank), \$90.32 (PayPal), and \$199.00 (Petty Cash) for a total of \$3,545.82.

**Secretary:** Matthew M. Hernandez had no updates during this meeting. The previous meeting minutes for June were approved. Bill Gee has posted those minutes to the KCAG website.

**Quartermaster:** Nathan Taylor is the Quartermaster; He can be contacted about borrowing any equipment.

**Novice Trips:** Kristen Vogel informed everyone there is an upcoming trip for Kiesewetter on September 23<sup>rd</sup>.

**Presentations:** Please contact Bill Gee at [bgee@campercaver.net](mailto:bgee@campercaver.net) if you are interested in giving a meeting presentation or have a topic idea. For online meetings, presentations should be in the half-hour range rather than an hour long. For in-person meetings up to an hour is available.

**$\pi$ -Pistrelle Bat Detector:** Bill Gee provided a technical presentation on the  $\pi$ -Pistrelle Bat Detector. The bat device is a hand-held ultrasonic detector and recorder designed by Phil Atkins from the United Kingdom. The printed circuit boards (PCB) are ordered overseas, and the additional components are sourced and manually soldered to the board. The total price per unit is approximately \$60 USD, this is dependent of both the size of the battery and MicroSD card. Ordering parts in bulk volume can also yield a cheaper price per unit. There are some downsides to this device when compared to the more expensive commercialized devices available. The battery life currently is measured in days, so routine battery replacements will be required. The other downside is it is not inherently cave-proof. The device would need to be put into a sealed container of sorts, but the microphone would have to be exposed in order to have proper readings. There is potential for the wet/humid environment to wreak havoc on the device.

**Air Quality Monitor:** Bill Gee's second presentation was on an Air Quality Monitor that Bill designed himself. The device uses an Arduino microprocessor and is loosely based on the  $\pi$ -Pistrelle. The device uses a multitude of sensors. They are as follows Temperature, Barometric

Pressure, Relative humidity, CO2 concentration, and VOC. Most of the sensors are self-explanatory in regards to what they measure. The VOC sensor stands for Volatile Organic Compounds. This includes Carbon Monoxide, Ethanol, Ammonia, and Methane. Unfortunately, the VOC sensor is not very descriptive in its readings. It only outputs a 0-500 integer. A low integer means a low concentration of any of the potential compounds above.

**The Guano:** No updates. Anyone interested in contributing a submission to the publication is encouraged to contact Julie Cooley ([oragami\\_fold@yahoo.com](mailto:oragami_fold@yahoo.com)).

**MeetUp:** Kristen Vogel informed everyone that our Meetup account will also no longer be renewed.

**White Nose Syndrome:** See <https://caves.org/WNS/> for the most current map of the spread of WNS.

### **Organization Updates:**

**Carroll Cave Conservancy (CCC):** Rick Hines talked about sourcing some white oak siding for the shelter house as well as some electrical items for lighting/RV hookups. Additionally, there is a workday planned for October 20<sup>th</sup> through 22<sup>nd</sup>. (This date has since been moved to November 18<sup>th</sup>-19<sup>th</sup>.)

**MSS/MCKC:** Jim Cooley informed everyone that the next meeting is to be held October 14<sup>th</sup>-15<sup>th</sup> at Berome Moore cave.

**Hickory County:** Gary Johnson was not present, so no updates were discussed.

**Stark Caverns Survey Project:** Bill Gee talked about a few previous trips in which Mike and Candace Kovacs and Bill surveyed some additional areas and spent some time doing some photography. They were able to take more than 500 photos. He also mentioned that there was an invite only trip scheduled for October 29<sup>th</sup>. It will be a photography trip and a small lead push.

**Cloud 9 Ranch:** Jim Cooley had no updates to provide.

**Devil's Icebox:** Kristen had no updates to provide for the meeting.

**Geronimo Cave:** Bill Gee had no updates for Geronimo Cave. Seth Colston is still developing the map for the cave.

**Trip Reports and Other News:** No new news

**Ozark Underground Laboratories:** Rick Hines talked about his trip to the Ozark Underground Laboratories. There was a total of 12 people in attendance. He talked about the number of expansions which have been made to the area since he last attended, including acreage purchases and building additions.

**New Business:** No new business.

**Unfinished Business:** No unfinished business. The meeting was adjourned.

## Upcoming Trips and Events

Check with the trip leader before you set out to attend any of these events.

**2023 October 7<sup>th</sup>:** Over The Edge event at the Marriott Hotel, I-435 and Metcalf. Contact Bill Gee at [bgee@campercaver.net](mailto:bgee@campercaver.net) for more information

**2023 October 7<sup>th</sup>:** Cleveland Cave Novice Trip. Contact Becca Marlin [marlinbecca11@gmail.com](mailto:marlinbecca11@gmail.com) for more information.

**2023 October 20<sup>th</sup>-30<sup>th</sup>:** Cave survey on private lands in southeast Missouri. Sketchers especially sought, Contact Jim Cooley at [coolstoi@kc.rr.com](mailto:coolstoi@kc.rr.com) if interested.

**2023 October 21<sup>st</sup>:** Bridge Day. More information at <https://bridgedayrappel.com/> There are important restrictions and qualifications for this event.

**2023 October 28<sup>th</sup>:** Carroll Cave annual bat census. Contact Bill Gee at [bgee@campercaver.net](mailto:bgee@campercaver.net) for more information.

**2023 October 29<sup>th</sup>:** Stark Caverns. Photography and small lead push. Invitation only.

**2023 November 18<sup>th</sup>-19<sup>th</sup>:** Carroll Cave Work Weekend. Siding and Electrical work on campground pavilion. Contact Rick Hines for mor information. [rickhines@aol.com](mailto:rickhines@aol.com)

**2024 January 6<sup>th</sup>:** Carroll Cave data logger service trip. Contact Bill Gee for more information. [bgee@campercaver.net](mailto:bgee@campercaver.net)

**2024 April 5<sup>th</sup>-8<sup>th</sup>:** Cave survey and monitoring in southeast Missouri (Carter and Ripley County) with full solar eclipse viewing on Monday. Activities on the weekend will include a tour of a famous local historical site on private property, the Midco Steel Works – an abandoned steel mill dating from World War One, of all things! We will camp dead in the middle of Monday’s full eclipse path on private land in Ripley County. Contact Jim Cooley at [coolstoi@kc.rr.com](mailto:coolstoi@kc.rr.com) if interested.

**2024 July 1<sup>st</sup>-5<sup>th</sup>:** NSS Convention in Sewanee, TN. <https://caves.org/convention/2024-nss-convention/> for more information.