

The Texas Caver

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Volume 68, Spring Issue

TSA Phil Winsborough Awards

2023 Chuck Stuehm Awards

Zacatón Trip Report

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Jessica Gordon sketching a cave in the Texas Hill County. Photo by David Ochel.

Letter from the Editor

By Jessica Gordon

This issue of The Texas Caver will transport you across time and space. Learn about recent discoveries and gain insight into the ancient past as you read stories about caving deep in the heart of Texas and explorations of Texas cavers in Mexico, France, and Italy. Contributors to this issue range from beginning cavers to cavers who have been caving half a century. Some articles in this issue may require you to decipher fact from fiction. Did Texas cavers train for world-class caving expeditions in a graveyard? Does hosting a caver-style pool party in Italy involve descending a canyon and sliding down and/or jumping off of waterfalls? What hardships are cavers willing to endure? What is the reward for bushwhacking; descending narrow pits; squeezing through tight, meandering crawls; swimming in vampire bat guano; and bathing in seed ticks? Discovering new species, making cave connections, and building lifelong friendships make it all worthwhile. Special thanks to all who submitted content for this issue, to our amazing team of proofreaders, and to our new graphic designer. Enjoy the journey!

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Front & Back Cover Image:
Colin Magee climbs in the Garden of Eden.
Photo by Rachael Lindsey.

The TSA Phil Winsborough Award

by Jim "Crash" Kennedy

The Phil Winsborough TSA Exploration Awards are presented annually to one or more Texas cavers in recognition of commitment to exploration and to encourage continued exploration. There are two awards each year:

Open Applications

This award will be chosen from individuals who apply personally or are nominated by a friend. A few short paragraphs are needed to illustrate the individual's history of exploration and to justify the nomination.

Factors to be considered are:

1. A strong record of exploration achievement
2. Enthusiasm
3. Leadership
4. Youth
5. Financial need

The winner from the publicly submitted nominees is chosen by the Peer Selection Committee.



Pictured: Joe Mitchell scanning a water cave using the Caveatron – a cave survey and 3D LIDAR mapping device that he developed. Photo by Bennett Lee.

*Joe has used this device to scan more than 25 caves in Texas and beyond and generated 3D-printed models of several of them. He's released the design as open source so that anyone can build one, and he regularly updates the design and software, which is in use by cavers around the world:

https://github.com/caveatron



Kara Posso at the entrance of Infiernillo. Photo by Bryce Smith.

Peer Selection

This award has the same criteria as the first, except that the awardee will be nominated and selected by a committee formed from past Phil Winsborough Awardees. This award is not intended to go to senior citizens unless the committee sees fit. Its real purpose is to encourage achievement and leadership among our younger cavers (perhaps newer is a better term).

- Both awards come with a beautiful certificate and a $500 cash prize.
- Both awards may go to the same individual.
- Deadline for nominees is approximately three weeks before TCR, and awards are presented at TCR during the Saturday evening awards ceremony.
- Awards are sponsored and paid for by Terry Sayther and Debbie Stuart in memory of Phil Winsborough.

History

Fifty years ago, Terry Sayther was a poor graduate student caver trying to get to Mexico every month to follow roads on the newly released topo maps. He could split expenses with his riders, but did not have enough money for tires and truck repairs. Phil was a caver from the previous decade who bought Terry sets of tires and truck parts to allow his continued exploration, with no questions asked, no strings attached. Terry has never forgotten Phil's generosity. And so, he pays it forward with this award each year, no questions asked, no strings attached.

Past Awardees

2019 Jim Kennedy
2020 Marvin Miller and Ron Rutherford
2021 Ben Hutchins and Bryce Smith
2022 Ethan Perrine, Cruz St. Peter, and Drew Thompson
2023 Joe Mitchell and Kara Posso

Congratulations to Joe and Kara, along with all the past winners!

The 2023 Chuck Stuehm Award Winners

by Jessica Gordon

This award for new and exceptional cavers is named after Raymond "Chuck" Stuehm (pronounced 'Steam'), who was a member of several grottos in the San Antonio area and was especially good at welcoming, guiding, and encouraging new cavers.

Chuck's memory is honored every time a new, exuberant caver receives this award. Along with the award, each recipient also receives a FREE one-year membership to the Texas Speleological Association.

Congratulations to the 2023 Chuck Stuehm Award winners:

DeAndre Walker *(Greater Houston Grotto)*

Enzo Monfre *(Underground Texas Grotto)*

Jesse Hillger *(Bexar Grotto)*

Kyle Wellborn *(Aggie Speleological Society)*

Tashina Ferries-Gallo *(Dallas/Fort Worth Grotto)*

Thank you to all the grottos for their participation!

Photos:

Pg. 6
Enzo Monfre toward the start of a survey trip into Honey Creek Cave. Photo by Ethan Perrine.

Pg. 7

Top Left: Tashina Ferries-Gallo.

Top Right: Jesse Hillger's first ever solo backpacking trip, Fall 2023 at Lost Maples State Natural Area. Photo by Jesse Hillger.

Bottom Left: Kyle Welborn. Photo by Jakob Denton.

Bottom Right: DeAndre Walker. Photo by Bethany Carter.




Tashina


Texas Hydro-Geo







Zacatón Trip Report

by Rachael Lindsey

Rachael Lindsey in Cuarteles. Photo by Ben Hutchins.

On February 3, 2023, Abigail Mack, Aubri Jenson, Ben Hutchins, Christina Brodribb, Colin Magee, Peter Sprouse, and I headed south to explore the area around Cenote El Zacatón. My stomach was churning as I waited for Peter and Aubri to pick me up in Peter's Sequoia, El Burro. This was my first real caving trip, and I was suffering from strong imposter syndrome anxiety. (Had I packed too much gear? Too little? Did I remember everything I needed? Did I really want to do this?) As we all shuffled and loaded gear, Peter shared it was his 69th birthday and asked what I thought about stopping in McAllen on the way back home from the trip. He and Ben were hoping to search there for Ricinulei, a tiny, primarily tropical arachnid that can be found in leaf litter and soil under rocks and wood. Ricinulei is the "rarest of all arthropods" in Texas, according to their description. It's all explained in Ben's Texas Arachno-Challenge blog posts. Ricinulei haven't been documented in Texas since 1939, but Ben had word of a more recent location.

I was in way over my head, but it was too late to turn back now. I checked one last time for my passport and jumped in the back seat, wishing Peter a happy birthday, affirming excitement for any side quests on this trip, and furiously googling the Texas Arachno-Challenge.

We all made it to the border around midnight, piling into two hotel rooms for a night's rest. The next day began with tacos. After a scenic and uneventful drive, we arrived at Rancho BioVentura in Aldama that afternoon. Our campsite bordered La Pilita, a small cenote with 86°F waters that we called the hot tub. As soon as Abigail had parked Mr. Sparkles, Christina ran for La Pilita and jumped in. Ben pulled out plankton net sampling equipment (a bucket on a rope on a reel) and we ran a few pulls, with sugarplum visions of samples all the way around La Pilita throughout the week (spoiler alert: we did not sample again). A short walking tour after we set up camp took us to Poza Verde, Zacatón, and Cueva la Confusión. Rancho

1. There are three blog posts on the Texas Arachno-Challenge, all written by Ben Hutchins This is the first part: https://texasnongameprogram.wordpress.com/2015/02/09/the-texas-arachno-challenge-entry-i/

BioVentura had been planned to be a tourist destination, but cartels and the pandemic interrupted the idea. The property features four cenotes, two cave systems, scenic views, viewing decks, ziplines, palapas, a climbing wall, beautiful rock staircases built into the hillsides, and flushing toilets at the campground. When we arrived back to camp, Abigail and Christina decorated cupcakes for Peter's birthday – featuring some of Peter's children!

A great cacophony of birds woke us at 6:45 a.m. (Red-billed Pigeons and Brown Jays started the chorus with an extremely annoying racket but were followed by a variety of beautiful voices including Great Kiskadees, orioles, woodpeckers, warblers, kinglets, gnatcatchers, doves, and parrots). La Pilita was steaming in the cool dawn's light. After breakfast, Ben and Abigail headed to Boca del Diablo, a blowing sink that opened into an overwhelmingly intense bat chamber, which they mapped for 98 meters before turning back due to bad air, swarms of soft-bodied ticks, and an abundance of bats (possibly Ghost-faced Bats). Abigail regaled us later that night with the story of their last survey point – a 40-meter shot – where she was yelling, "Ben, take the shot! Take the shot!" while attempting to hold the target steady with bats bombarding her face as she avoided the tick swarm marching its way towards her across the dermestid beetle-covered guano. Ben also battled the bat attack to lock the Disto while fighting the terrible air quality. After turning back, they joined the rest of the team in Cueva de la Confusión for surveys. Aubri wrangled a scorpion, which Colin named Douglas. Peter and I headed back to camp to meet ranch hand Gilberto. On our way back to camp, we took El Burro (Peter's Sequoia) on its first caving trip – a drive-in entrance to Cueva la Cuarteles that was created to mine bat guano.

Gilberto took us to the village of Nacimiento to meet Marcos Pedraza, a ranch hand at Rancho la Iguana, who led us to a number of entrances including Dos Ojos. We wondered if this area had been historically clearcut – it has the look of brushy regrowth similar to the Hill Country but markedly different species. Each skylight and sinkhole had huge buttressed palms growing on the edge. Marcos told us stories of chasing cattle and finding these features. He told us at one feature that a raging torrent can be heard subsurface after a heavy rain. We bushwhacked for most of the day, and we all got seed ticks – but they were spotted quickly enough to brush them off our pants (light-colored clothing is helpful for seeing seed ticks). Peter cut through a tree called Arbol de Leche which has milky sap that Marcos told us can cause a rash like poison ivy and blindness if it gets in your eyes.

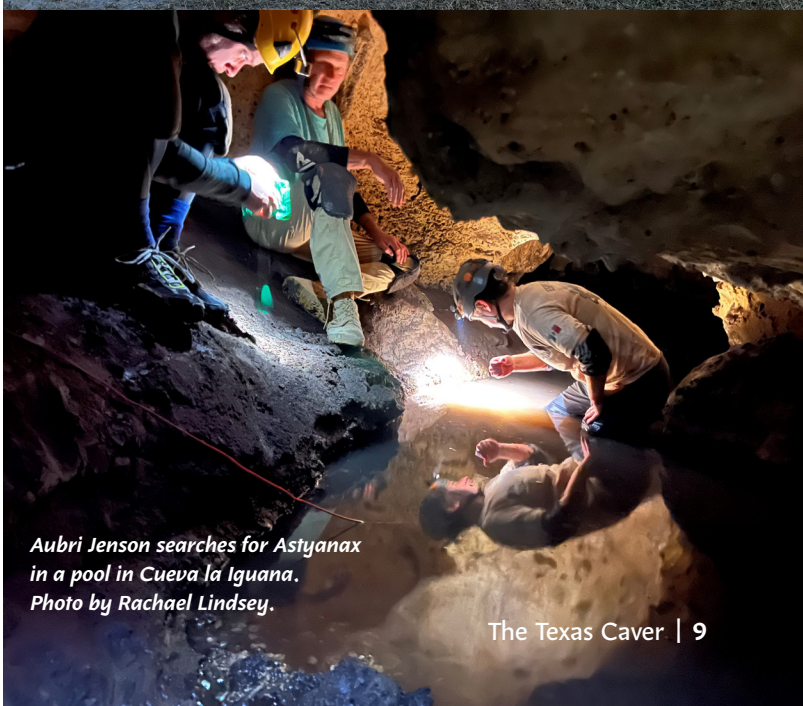
The day's total for the team was 526 meters mapped at Confusión. We swam in the hot tub that evening before dinner. Peter and I convinced ourselves the sulfur water would remove



Colin Magee. Photo by Christina Brodribb.



Group photo.



Aubri Jenson searches for Astyanax in a pool in Cueva la Iguana. Photo by Rachael Lindsey.

any attached seed ticks (another spoiler: it doesn't). We all gathered around the tailgate to do a Douglas photoshoot before pickling him. Ben repeatedly grabbed Douglas by the tail to place him on a rock for photos. I asked Ben his technique and he said, "Believe in yourself!". This great life advice has been a refrain in my brain ever since. Douglas is likely a new species based on lighter coloring than usual, and smaller, wider-set eyes, according to Peter's contact Edmundo Gonzales at the Collection National de Arácnidos in Mexico City. Edmundo handles this lab that has described more scorpion species than anywhere in the New World.

Over dinner, I learned that a ride in Abigail's Mr. Sparkles comes with searching for the best song with your name in it, and I am forever stuck with Colin's song.

Day 4 took us all to Rancho la Iguana where we broke into three teams for explorations and surveys: Peter, Marcos, and me in the Dos Ojos entrance of Cueva La Iguana; Ben, Abigail, and Aubri at the same entrance headed toward a stream Marcos had told us about the day before; and Colin and Christina ridgewalking to drop into skylights surveying toward the other teams. Team 1 eventually came to a dead end in a huge dome with two collapses connected by a bridge (which looked much safer to walk on from above than below!). The dome had black staining covering the walls and ceiling, and piles of guano spread across the floor of the room several meters deep in some places, even with historic mining. It must have once been a massive bat roost. Due to the amount of sunlight from the two skylight collapses, there was abundant vegetation in the domed room. When I first saw the opening, there were beams of sunlight streaming through the skylights into the lush, green vegetation with dust dancing like faeries. We named this area the Garden of Eden. I told Peter that if I pass on this trip, dump my body through the skylight and let this be my final resting place. (No burials took place on this visit.)

Team 2 found the sump, which was occupied by vampire bats and also a population of (eyed) Astyanax (Mexican tetra). These fish have a particularly unique survival strategy due to their habitats being very literally flood or drought (feast or famine). They gorge themselves silly when floods come through and starve for long dry seasons. What is especially unique and has serious implications for diabetes research is that their blood sugar doesn't change in feast, famine, or normal eating times. Due to their rare availability and their scientific implications, they have been overharvested in several locations. A new location for this species is an amazing find!

Colin and Christina skillfully attempted survey shots from the surface to the floor of the system through skylights twice just as Ben, Aubri, and Abigail came by and were able to mark the floor location for them.



Serious Mama, Abigail Mack. Photo by Rachael Lindsey.



Ben Hutchins in Boca del Diablo. Photo by Rachael Lindsey.



Scorpion Wrangler, Ben Hutchins. Photo by Rachael Lindsey.



On Day 5, Ben and Aubri waded back through the vampire bat sump ... twice. Normal bat guano can be offensive, but vampire bat guano takes nasty to a whole new level – putrid smelling oil slick of poo blood. Peter, Marcos, and I went back to the Garden of Eden to survey the perimeter and a few dead-end passages that were about 10 feet above the floor of the room. We were able to find a few points from Peter's previous survey (from around 1998). Marcos built us a ladder out of an old metal barrel and a tire. Marcos calls Peter "El Patron." It was a lovely and carefree day. Colin, Christina, and Abigail checked several leads including a cave brimming with seed ticks. They had countless ticks embedded in legs, torsos, and arms. They named this cave "Tick Bait." The team appeared at a skylight just south of the Garden of Eden while Peter, Marcos, and I were surveying, which allowed us to take a 21-meter survey shot to the top. The team climbed down to the Garden of Eden and Colin rock-climbed the ledge to see if there were any leads. There was nothing but critter corpses on the ledge, but it was cool to watch.

On Day 6, all the teams returned to Cueva la Confusión for surveys. Peter and I started in a north entrance that became a dermestid beetle-covered, sinking guano crawl with swarms of bats. I kept reminding myself that if Ben and Abigail could brave Boca del Diablo bat cave on the first day, I could continue to push this lead which was mildly gross but not horrifying (at least there were no soft-bodied ticks). I was picking my way through increasingly deep guano (choosing the routes where I only sank to my ankles rather than my knees) when I spotted an orange survey flag: BH4. We had surveyed to Ben and Abigail's final shot in Boca del Diablo! This was my favorite thing of the day, and also turned out to be Ben and Abigail's favorite thing because no one needed to return to the bat cave to finish the survey.

Abigail and I surveyed the (109m) Serious Mama. While we were exiting, we noticed a Mottled Owl perched on flowstone had been watching us the entire time. We were amazed he never spooked, even while we took approximately eleventy thousand photos with loud exclamations of his beauty.



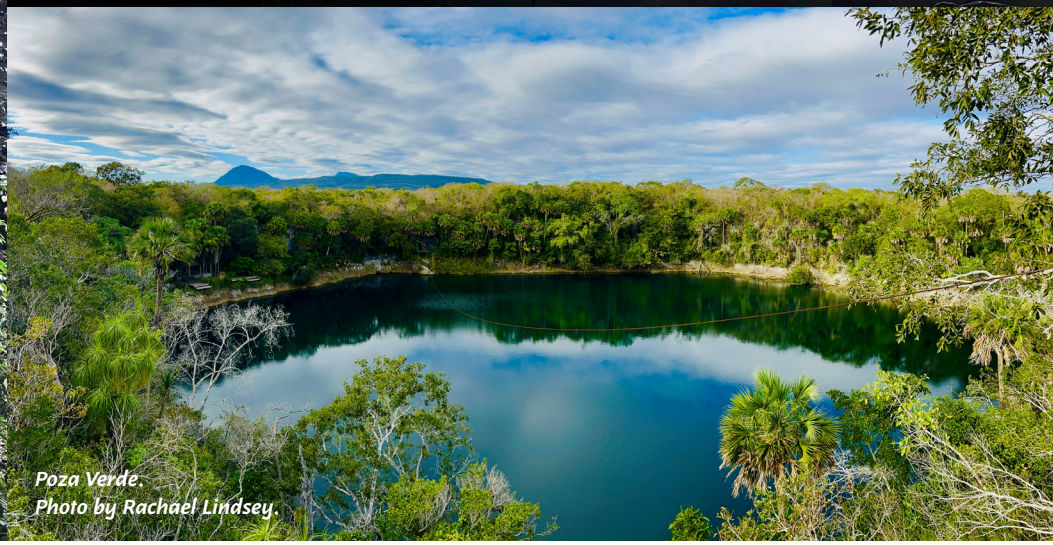
This scorpion is likely a new species. Photo by Rachael Lindsey.



Colin Magee in the Garden of Eden.
Photo by Rachael Lindsey.



The Dos Ojos entrance to Cueva la Iguana.
Photo by Rachael Lindsey.



Poza Verde.
Photo by Rachael Lindsey.

On Day 7, Colin and Christina checked the huge (around 200 meters wide) Garrapata Sink west of Sistema la Iguana but found no caves. Ben, Aubri, and Abigail mapped a pit west of Iguana and connected it into the system. Peter and I dug on a blowing hole across the road from Cueva la Casa. Peter pushed in 20 meters through breakdown but could not find passage beyond. We decided to check a pool in Cueva de la Casa and collected stygobitic stenasellid isopods, which Peter is sure are a new species. We also collected a schizomid in the back of the cave, which may be a new species.

The bird cacophony had continued each morning, but spectacularly on the morning of Day 8, we had a Collared Forest-Falcon and a Ferruginous Pygmy-Owl join the chorus. Aubri and Abigail went back to Iguana to push the low air space sump with Marcos. They mapped 94 meters before turning around due to the frigid water temperatures. Colin and Christina rappelled to openings in the wall of Poza Zacatón. They mapped 10-meter-long Exley's Attic, named in honor of remarkable diving pioneer and innovator Sheck Exley, who lost his life diving Zacatón in 1994.

Peter, Ben, and I mapped the remaining side leads in Confusión and a cave at Poza Caracol. The Confusión leads were thick with travertine dust, and I had copious quantities in every available opening in my clothes and face. After exiting, a cloud of dust blew off me in the wind like Pig-Pen from Charlie Brown. When we returned to camp, the ranch hand, Gilberto, told us the police had stopped by and raided our coolers of all the beer. Gilberto needed to leave, which meant one of our trifecta needed to stay at camp. Ben volunteered unless I wanted to. I was intrigued; the idea of a swim and removal of dust was tantalizing. Ben suggested rock, paper, scissors.

I'll let the reader work out the details, but Ben and I went to Cueva de Cuarteles to see if we could push the lead into the bat room. It was nightmarish, and we decided not to. There's an entrance room that was entirely stained black, floor to ceiling, and deep with guano that leads to a small window into complete barnyard blackness. Bats streamed out of and into the window in a constant assault, soaring on overwhelming waves of excrement perfume. Both Ben and I tried our best to peek into the bat room, but we couldn't get past the stench and bat attack. We did note several side leads and discrepancies to clean up on a future trip. Cuarteles has the most beautiful skylights, light dancing in strangler fig roots – we took numerous opportunities for photo shoots.

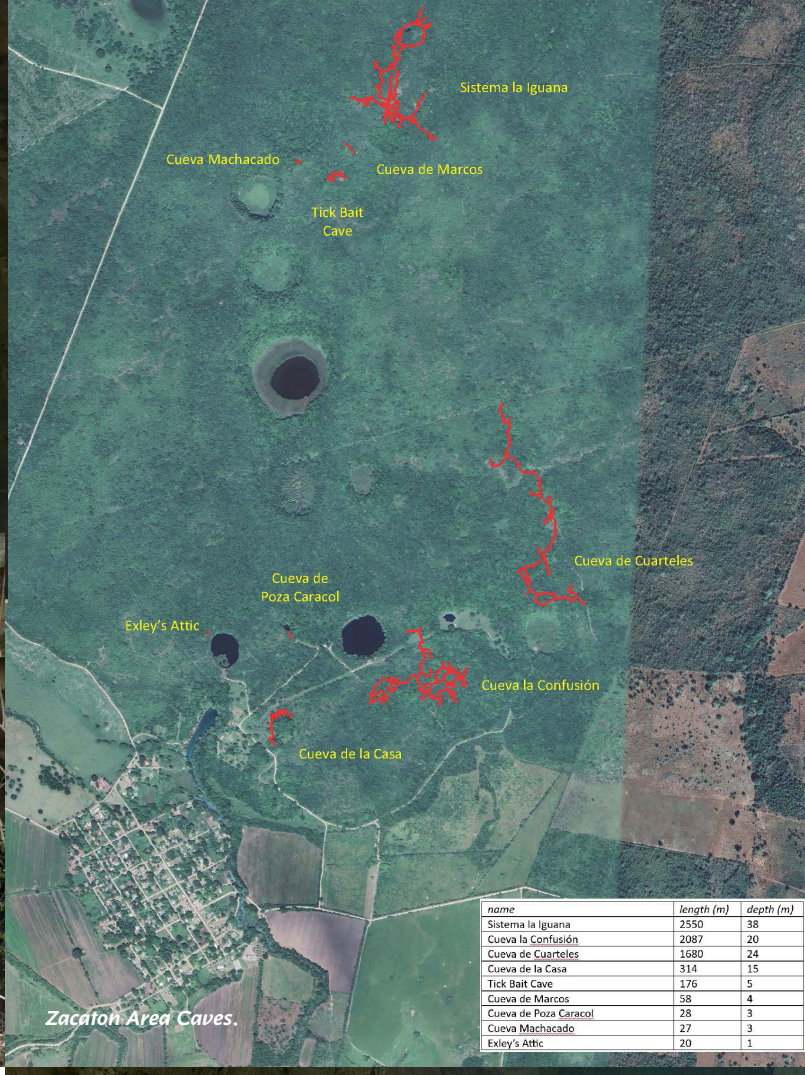
We packed up and left camp on Day 9 at 9:22 a.m. – our earliest time of the week to exit camp! We stopped at La



Peter Sprouse sketching Cueva la Iguana.
Photo by Rachael Lindsey.



El Burro driving through Cueva de Cuarteles.
Photo by Rachael Lindsey.



name	length (m)	depth (m)
Sistema la Iguana	2550	38
Cueva la Confusión	2087	20
Cueva de Cuarteles	1680	24
Cueva de la Casa	314	15
Tick Bait Cave	176	5
Cueva de Marcos	58	4
Cueva de Poza Caracol	28	3
Cueva Machacado	27	3
Exley's Attic	20	1

Zacatón Area Caves.

Muralla Park, in hope of cave leads, but it is not limestone. We stopped to assist some police vehicles which had run out of gas just south of the La Coma highway intersection, but we only had maybe a cup of fuel remaining in our cans. They told us traffic was stopped up ahead due to a gun battle between authorities and the cartel. We ended up parked on the highway for an hour waiting to be let through. The cartel members were in a bulletproof SUV. Hilariously, there was a man with a huge pile of donuts for the police. Border crossing was fast, and we had time to stop to look for ricinuleids at McAllen Natural Area but found it to be too droughty and decided to push for home that night. Our week's surveys totaled 4,295 meters.

You've just read a story of the accomplishments of seven people coming together and sharing a week in one of the most remarkable places on our planet. I left Texas worried about how badly I'd embarrass myself, and I returned to Texas an international caver (technically, although in my infancy, this is true). I left Texas only knowing Peter and Ben and returned with six of my favorite people in the world, wishing we had another two weeks. I left Texas timid about caving, and I returned ready for vertical training. Enormous thanks to Peter Sprouse for the wrangling of people and places, and especially the support to try a trip.



Our ladder built from scrap.
Photo by Rachael Lindsey.

Greater Houston Grotto Summer Field Trip 2023 - France + Italy

by Alberto Gaudio and Bethany Carter,
Greater Houston Grotto of the National Speleological Society

The Summer Field Trip of the Greater Houston Grotto (GHG) took place from July 24 to August 3, 2023. The participants were 14 members of the GHG, two technicians of the Italian Caving Rescue Team (CNSAS) and three members of the Italian Urbino Grotto (GSU). The destination of this summer field trip was the famous "Massif du Vercors," located just south of Grenoble (France), and the Gypsum Vein Karst System near Bologna (Italy). The aim of the GHG summer field trips was to gain a better understanding of the karst systems outside the United States, as well as creating a network of international cavers to share knowledge, techniques, and experiences. This year's field trip is following the field trip held in 2022 in the Apuan Alps Karst system (Corchia Cave, Italy) and the Hypogene Karst of Frasassi (Italy).

Note: Caves in France and Italy are 99.9% free access. You just need the GPS coordinates that you can find on the Internet or on books and walk in. However, there is a 0.01% possibility that the cave is in some way protected because of a fragile environment. In this case, you should just send a list of participants in advance to get access to the cave. Collect all the information about the procedures before going caving. In any case keep in mind the quote, "Leave only footprints and take only pictures."

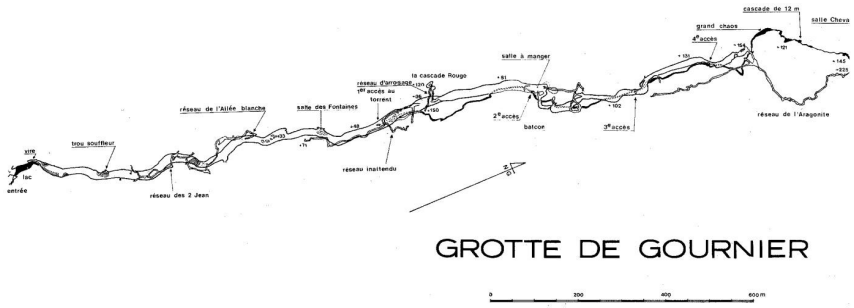
Grotte Favot Entrance. Photo by Liliana Wolf.



Caving Training Facility "Jose Mulot" – Méaudre in Vercors. Photo by Telly Manos.



Limestone outcrops of the Massif du Vercors. Photo by Victoria Smith.



Grotte de Gournier survey – plan view. (Caillault et al. 1997)

Vertical Practice

The first day was spent checking the equipment at the Caving Training Facility "Jose Mulot," located in the village of Méaudre in Vercors. This facility was built by the French Speleological Society (SSF), and it is designed both for rigging training and for vertical practice. The structure is about 40 feet high and is equipped with anchors to rig several ropes and the possibility to test and practice any kind of rigging and rebelay technique.

The Vercors Massif

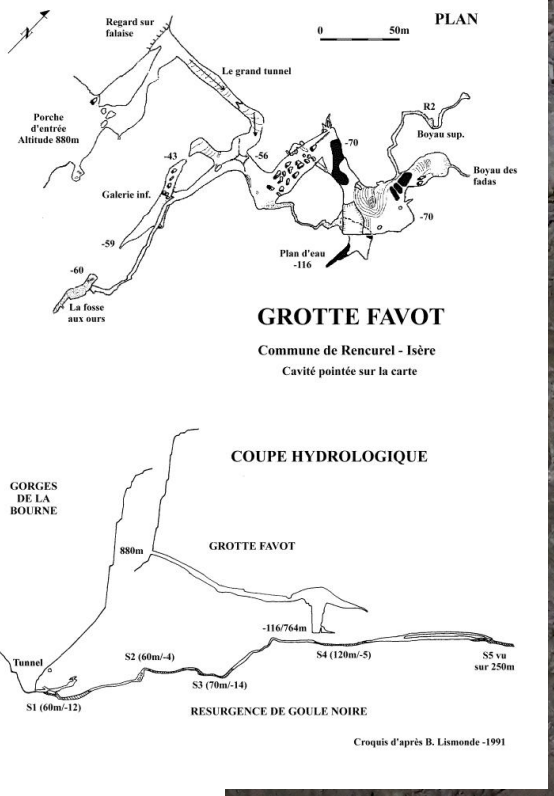
The Vercors region is a Jurassic limestone massif that has been the object of extensive exploration and caving activity for a long time. In this area is the famous Gouffre Berger, the deepest known cave in the world from 1952 to 1963 (1,122 meters). Because of the large quantity of caves and the relatively easy accessibility of the entrances, this region is one of the most important for caving in Europe, and it was the object of great exploration in the second half of the 1900s. It is also to be remarked that the modern techniques of using ropes rather than ladders was developed in that region. It is sufficient to mention that just northeast of Grenoble is the "Dent de Crolles"... that sounds immediately familiar for people that have practiced vertical caving at least once.

Note: Fernand Petzl was one of the early explorers there and developed equipment for the exploration, which later became the basis for his company, Petzl.

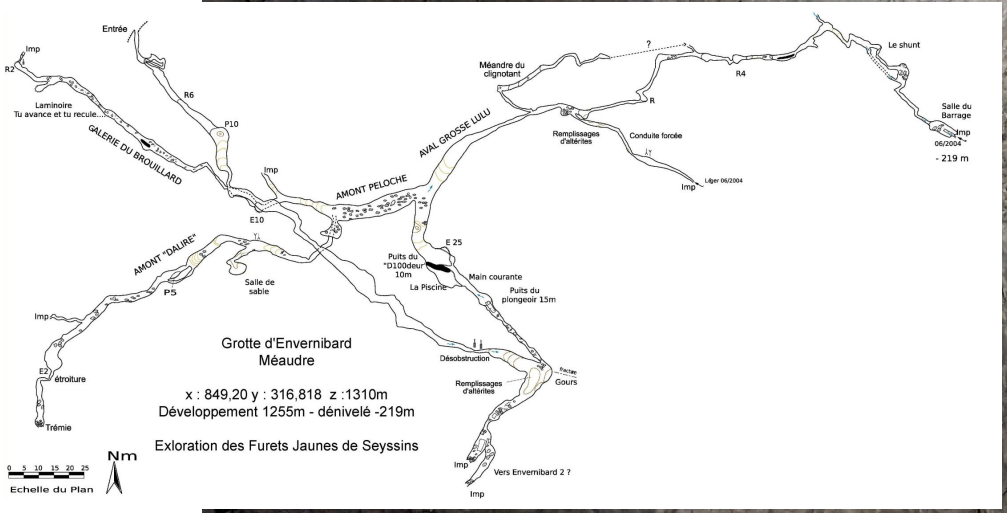
Grotte de Gournier

The Grotte de Gournier is a "must-see" in that region because of the beauty of the cave concretions and the unusual entrance that opens on an underground lake. The cave is located just next to the show cave of Choranche. Therefore, it is possible to park the car in the show cave parking lot and access the cave with an easy 12-minute walk on a well-maintained, easy path.

The Gournier Cave is substantially developed on two levels: the lower active level and an upper fossil level. The cave entrance is a big circular phreatic gallery with a diameter of approximately 30 feet, and the underground lake is at the entrance. An inflatable boat was used to run across the first part of the cave. Then a rope on the right wall with a 20-foot climb and a traverse gives access to the fossil gallery of the cave. After the traverse, the cave is mostly dominated by big blocks of rockfall. The cave is rich with concretions with very big stalagmites, flowstone, and wide rooms with extensive rimstone areas. After approximately one mile in the fossil gallery, a low passage leads to the active part of the cave with a significant underground river. The show cave "bar stop" on the way back to the car with the panoramic view on the Vercors while enjoying a "Pastis" is definitely the right conclusion to this cave trip!



Grotte Favot survey – plan view and cross section view. (Caillault et al. 1997)



Grotte d'Envernibard survey – plan view. (Caillault et al. 1999)

Grotte d'Envernibard. Photo by Alexis Manos.



Entrance of the Grotte de Gournier. Photo by Alexis Manos.

Grotte Favot

To reach the entrance of this cave, there is a very steep and long path in the woods. The entrance is obvious only when you are in front of it: a wide-hanging roof. A simple crawlway passage leads to the actual entrance of the cave: a spectacular phreatic gallery, formed on a bedding surface of massive limestones and descending with a constant angle of about 40°. The descent is quite comfortable even though a rope was rigged because the gallery becomes steep and slippery. The gallery then changes direction and ends in a rock fall room. Here it is interesting to notice a scientific station of the University of Grenoble, for the study of glacial sediments for paleoclimate reconstruction. The main descending gallery was actually occupied by a glacier!

The cave continues with simple horizontal passages before reaching a big concretion called the "dome." The dome can be passed with a simple rope, and the cave continues on to underground lakes. To the right, an approximately 100-foot pit with a number of rebelays leads to the deepest part of the cave (about 800 feet).

Grotte d'Envernibard

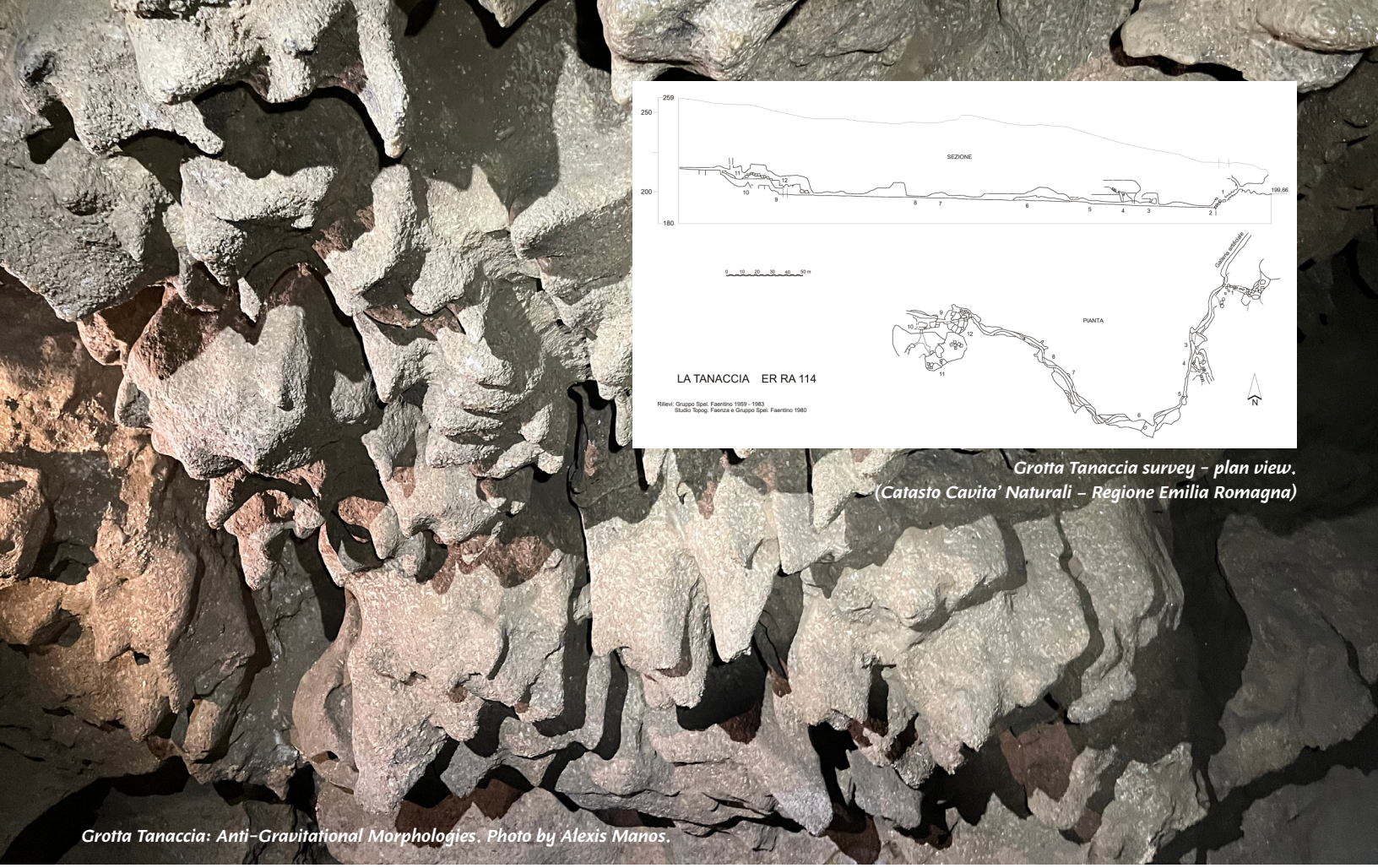
At this point of the trip, the ascent to the entrance of the Grotte Favot makes the legs start to feel quite heavy! Also, the weather forecast indicated "Disruption due to Thunderstorms" in the area: not a good situation since the majority of the caves in Vercors are subject to quick flooding. Therefore, it was decided to go to the Grotte d'Envernibard since it was listed as a cave that was not subject to flooding.

The entrance was not far from the parking lot, but it was hard to find because it is a little open diaclasis (a network of cracks in limestone rock allowing the infiltration of water and causing sinkholes) in the base of a limestone wall. So the thinnest and the bravest of the group decided to enter. The cave is quite uncomfortable, and after a few narrow passages there is a series of very narrow pits (15 to 30 feet). It took about five hours for the eight people who decided to go in that cave to start emerging again from the subsurface.

We then moved to Italy.



Canyon Rio Santa Lucia. Photo by Chelsea Dau.



Grotta Tanaccia survey – plan view.
(Catasto Cavita' Naturali – Regione Emilia Romagna)

Grotta Tanaccia: Anti-Gravitational Morphologies. Photo by Alexis Manos.

Canyon Rio Santa Lucia

Once in Italy, we decided to have a caver-style pool party that involved descending a canyon. The canyon is at the boundary between the Piedmont and the Liguria Region in Italy. A guide (named Ube) showed us some evolution of the technique for canyoneering. In the last 15 years, canyoneering techniques have evolved drastically due to a number of accidents, and it is now a very safe practice. The canyon starts with a series of increasing rappels and waterfalls up to 30 feet, from where you can decide to jump if you are brave enough. Then the second part involves sliding and swimming. There was a decent amount of water considering the season (late July). Descending the canyon took four hours. We finished with a walk across a medieval village to get back to the headquarters ... and to a restaurant.

Karst in the Romagna Gypsum Vein

About six million years ago, the Mediterranean Sea was isolated from the Atlantic Ocean due to a sea level fall and the geologic barrier at the Gibraltar Strait. This event is known as the Messinian Salinity Crisis of the Mediterranean. During this period, a thick layer of evaporites were deposited. Some of this, mainly gypsum, is now outcropping in the Romagna Region, south of Bologna. The action of water resulted in a quick formation of caves in this peculiar environment. In this area, more than 300 caves are known.

Grotta Tanaccia

Grotta Tanaccia di Brisighella, only partially known by the local community, started to be scientifically studied in 1930 by Giovanni Bertini Morning from a speleological and archaeological point of view (Piastra, 2015). The cave has a main big entrance that became inaccessible due to a rockfall in the 1980s. Therefore, an artificial tunnel was dug to reach the cave with the intention of using this cave as a show cave. The Tanaccia cave is formed within the Messinian gypsum sequence, and it is believed to be of recent formation (i.e., the last 20,000 years) (Chiarini et al, 2015). The cave is mainly characterized by the presence of an internal river which is usually dry in normal conditions, but it can have a significant flow after rainfall. The passages are mainly horizontal, and a small traverse was rigged only for some passage in a tight meander for additional safety. In some areas of the cave, characteristic anastomosed channels can be observed on the ceiling as result of paragenetic processes (anti-gravitational erosion). Grotta Tanaccia is a 2- to 3-hour trip and is also good for beginners. Access is restricted, so you will have to contact a local guide.



Grotta Acquaviva-Rosa Saviotti. Photo by Chelsea Dau.

Grotta Acquaviva-Rosa Saviotti

This is a sporty cave with multiple areas of rope work and rebelays. The Grotta Acquaviva-Rosa Saviotti is a cave system that connects at least two entrances, both of which are an easy 10-minute walk from parking. This cave was explored by one Italian caver of the Italian Caving Rescue Team (CNSAS) and six members of the Greater Houston Grotto (GHG). Due to connectivity and proximity of both entrances, the trip began by entering this cave system via the Acquaviva entrance and exiting at the Rosa Saviotti entrance. The Acquaviva entrance approach is steep, so care must be taken when descending the hill. There is an initial 15- to 20-meter drop into the entrance shaft, followed by a tricky tight meandering descent that was best approached feet-first. As we traveled deeper into the cave, gypsum deposits of varying crystal sizes made for a spectacular light show as the cave walls glistened with passing headlight. One large gypsum deposit showed distinct crystalline layers of varying refractive indexes. This cave had more mud compared to caves in the Massif du Vercors, but not as muddy as some Texas caves such as Honey Creek Cave. There was a particularly muddy passage that was explored by two members of GHG, while the rest of us kept our gear fairly clean and had a smoke break. Just before exiting on the Rosa Saviotti entrance, a tight, meandering crawl made one happy to be shorter in height/length.



Caving trip participants. From the left, standing up: Paola Pierinami, Maria Pia Pozzi, TJ Tidwell, Piero Viola, Cruz St. Peter, Yee-Bien Chuah, Tim Charlton, Alexis Manos, Telly Manos, Marco Barbagli, Deandre Walker, Ben Dau; From the left sitting down: Lino Bedini, Alberto Gaudio, Victoria Smith, Liliana Wolf, Chelsea Dau, Bethany Carter, Megan Necessary.

Special Thanks

Special thanks go to all the people and associations for the help with the trip organization and for the warm hospitality:

- Paola Pierinami — Gruppo Speleologico Lunense
- Maria Pia Pozzi — Gruppo Speleologico Urbino
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- Speleologico Italiano
- Lino Bedini — Gruppo Speleologico Urbino
- Piero Viola — Gruppo speleologico Urbino
- Biagio — Gruppo Speleopolis
- Gruppo Speleologico Lunense — Italy — gslunense.it
- Gruppo Speleologico Urbino — gsurbinospeleo.it
- Speleopolis — speleopolis.org/en/

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TSA Karst Project at Colorado Bend

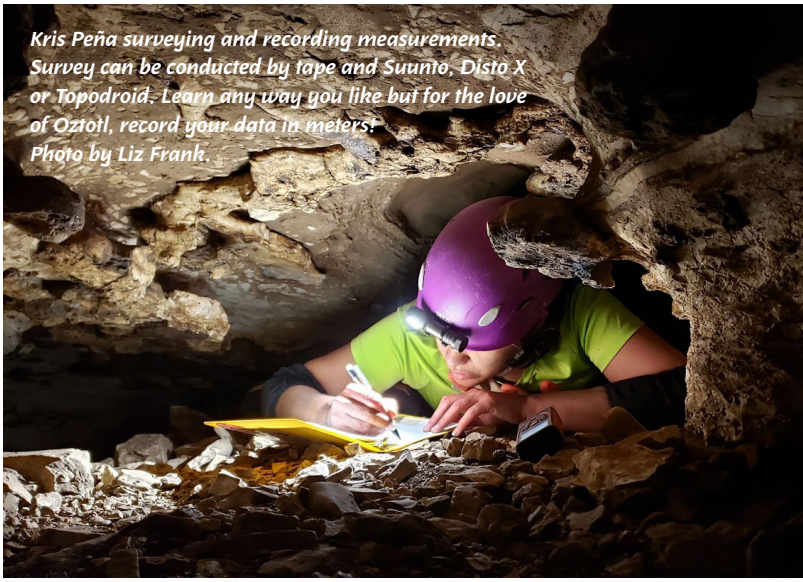
by Liz Frank

Colorado Bend State Park encompasses 5,328 acres of enchanting karst and scenery. Many come to the park to hike to Gorman Falls, a must-see Texas bucket list item. Hiding off the beaten path are over 200 known caves and 400 karst features and many more to be found. Texas cavers have been exploring the area for decades before the Gorman and Lemon Ranches became the park in 1988. Today, there are only two ways to enter the caves in the park. You can take a tour with Nichols Outdoor Adventures (cbcaves.com) or join the Texas Speleological Association (TSA) Karst Project (cavetexas.org/cbsp).

This karst project happens once a month, usually the second weekend of the month, October through April. If summer wasn't unbearable enough aboveground, below ground the caves in the park have higher levels of CO_2, or bad air, making most of them inaccessible for part of the year. The TSA has an agreement with the Texas Parks and Wildlife Department to systematically search the park for caves and karst features, document what we find, and create surveys and maps. Documenting these resources helps the park develop a comprehensive cave management plan which includes cave education and conservation.

Cavers of all skills are welcome to join the project. Group tasks include ridgewalking, placing metal tags at cave entrances, surveying, sketching, and mapping. You will need to bring your own gear – helmet, gloves, knee pads, and elbow pads. You may bring vertical gear if you are trained and checked off. Volunteers can expect beautiful, rugged hikes; muddy caves; lots of wildlife; and many cactus pricks. Cell service is limited, so if getting away from it all sounds amazing, you're in the right place.

The main project for the last couple of years has been the resurvey of the longest cave in the park, Gorman Creek Crevice. It was rumored to be connected to Horseshoe Crevice Cave, but there was no completed map to show for it. Survey notes from Russ Johnson in 2000 described his experience making the connection: "I squeezed through the downhole that was supposed to lead us to Gorman. This hurt.



Kris Peña surveying and recording measurements. Survey can be conducted by tape and Suunto, Disto X or Topodroid. Learn any way you like but for the love of Oztotl, record your data in meters! Photo by Liz Frank.



Roger Myers squeezes through tight passage to check a lead. Photo by Liz Frank.







Cavers at Gorman Creek Crevice, the longest cave in the park. Survey continues. Photo by Liz Frank.



Will Quast explores a multi-level cave. Photo by Kris Peña.



Ryan and Liz Hoffman give a thumbs up to surveying. Photo by Liz Frank.

A protruding rock raked lots of belly and just about took off my nipple. As I grunted and hissed, the eyeballs of David (Riddle) and Patrick (Burkart) were getting big; I detected sheer terror, and I began to doubt that I could make it myself. But I did make it." With a story like that, why wouldn't we want to go back and attempt the connection again?! Sounds like Type Two Fun to me! Determined, we made it our mission to find the connection in 2021. After a few attempts, we found the right route. Teams passed each other in the middle of the cave and exited opposite entrances. Success! Now we just have to finish that map … .

Every year, new caves are found. The best way to ensure that you get to name the cave you found is to make the map. All the skills you need to survey, sketch, and map can be learned by hands-on experience at TSA karst projects, through your local grotto, or by spending hours on YouTube watching Derek Bristol videos. These skills are valuable and can be the doorway to many future caving adventures.

At the end of the day, you will retire to Caver Camp, a private area for project volunteers. You will need to bring your own food, water, and camping gear. On most Saturday nights, project leader Will Quast will grill burgers. Believe me, after a day of hiking and caving, it will be one of the best burgers you've ever had. Weather permitting, there may be a campfire and stargazing. The sound of coyote howls will lull you to sleep, or you will just pass out because you are happy and exhausted. Caving dreams are the best!

To join a project weekend, first visit cavetexas.org/cbsp and read all the Project Volunteer Information. There you'll learn everything you need to join, including how to sign up. Group size is limited to 20 participants, so sign up soon! Happy Caving!



Crystal Crafft is all smiles in a water passage. Photo by Liz Frank.



Cavers stayed up late and warm around the campfire as they waited for the last teams to be raised up the Shaft Entrance. Photo by Bill Steele.

What's Below the Surface? My First Experience Beside a Caver Campfire

by Morgan Villegas

I recently joined Bexar Grotto in order to immerse myself in the world of caving. I'm relatively new to caving, but I have been interested in caves and the natural world my whole life. As a child, I would study books on geology and field guides for rocks, minerals, and fossils. I am also an active Texas Master Naturalist in the Alamo Area Chapter, in which I primarily volunteer doing environmental restoration work. And, as a trained cultural anthropologist with a focus on environmental anthropology and environmental education, I am always curious about how people interact with the environments in which we live. It is all of these interests combined that led me to the world of caving and finally making the decision to attend a Bexar Grotto meeting. At the first meeting I attended, I was delightfully met with a warm welcome. Kurt Menking encouraged me to come out and meet some folks in the caving community at Honey Creek Cave the weekend of January 13th. Just a few days after my first Bexar Grotto meeting, I visited Honey Creek Cave.

When I arrived at the private ranch on which the entrances of Honey Creek Cave are located, I noted the cavers already present and gearing up for the day's survey, campsites set up near their vehicles, and the ubiquitous yellow National Speleological Society bat stickers confirming that I was indeed at the correct place. I strolled through the site and met up with Kurt, who quickly introduced me to Bill Steele, and they showed me the survey map of the cave. I noted the amusing site names on the map. And, once the first survey team was



Newly elected TSA chairperson Eléonore Le Corvaisier smiles as she is lowered into the 145' deep Shaft Entrance of Honey Creek Cave. Photo by Bill Steele.



lowered into the shaft entrance of the cave, Kurt took me along to see the natural entrance of the cave and drop off his truck there, as his team would be doing a through-trip and exiting through the natural entrance later in the day. When we returned to the shaft entrance, I visited with some Bexar Grotto members who were working on the operations side of the survey, doing safety checks of gear prior to lowering cavers down the shaft entrance, and ensuring cavers were lowered into the cave safely and that everyone was accounted for. I was asked a number of times if I wanted to go into the cave that day, but as I did not yet have a wetsuit, I was unable to. However, Arron Wertheim offered to take me again to the natural entrance of the cave and the rock shelter to explore that area a bit more. On that trip, Arron led me into the natural entrances of the cave, and even though I was only able to go a short distance into the cave before encountering the stream that flows through it, I was blown away by the beauty of the cave. I encountered a bat and a cave crayfish and noted the fascinating geology of the place.

Later, after returning to the shaft entrance and site of operations, a campfire was built to warm the cavers as they returned from their survey work. A cold front was blowing in quickly, and the campfire brought everyone together. As some of the survey teams emerged and joined the group around the campfire, I reconnected with a few cavers I met from the Greater Houston Grotto with whom I'd worked alongside at a cave dig in Hays County in 2022. However, as all the cavers, team by team, joined the circle around the campfire and began discussing their experiences in the cave that day, their survey progress, and other life stories, the anthropologist in me sat back and just absorbed the whole scene. I appreciated all of the details of the close friendships experienced by the people sitting around that fire. I noted the camaraderie, the depth of knowledge on everything from survey equipment to various sites across the world, and shared networks of people and resources. The relationships people in the caving community have seem to be more akin to family than simply belonging to the same club or sharing similar interests. This is an exceptional quality for a group of people from so many varied backgrounds to have, and I think it's really quite wonderful.

As someone trained in ethnographic research, I am fascinated by the camaraderie and family-like nature of the caving community. I would like to better understand what drives these relationships and what about caving draws us all together. I am particularly moved by the reverence and care for the older cavers in the community. With that in mind, I would like to start collecting stories from some of the early Texas cavers to preserve their experiences and the history of Texas caving. I hope to meet you all in time and share stories and experiences underground and around campfires for many years to come!

Honey Creek Cave explorers/mappers point to where they are about to go. Photo by Bill Steele.

Exploring the End of the Ice Age in Honey Creek Cave

by John A. Moretti

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All images by John Moretti.



Figure 1. An upper molar of an extinct tapir (Tapirus) discovered in Honey Creek Cave (credit Stacie Skwarcan).

Katheryn Jager called excitedly over to me in the Boneyard of Honey Creek Cave, "John, what about this one? I think it's a tooth!" The fossil in question was passed over to me where I was laying on a gravel bar, inspecting other ancient bones. I recognized Katheryn's find immediately and exclaimed back, "you just made the find of the day!" The fossil was an upper molar (Figure 1) of an extinct Ice Age tapir!

The Ice Age refers to an interval of geologic time known as the Pleistocene Epoch. The Pleistocene began 2.58 million years ago as glaciers spread across the Northern Hemisphere, and it ended ~10,000 years ago. The end of the Pleistocene is marked across the world by rapid climatic change, as those glaciers collapsed, and widespread extinctions among terrestrial animals. Over 38 genera (plural of genus) of animals, mostly giant forms (including tapirs), became extinct in North America alone. That climatic and faunal change set the stage for the ecosystems that exist today. As a result, the late Pleistocene is an important interval to understand if we want to learn about the natural world. Yet, we lack a clear understanding of why those extinctions happened, and the topic continues to be debated, often contentiously (Meltzer 2020).

Deposits and associated fossils from the late Pleistocene preserved in caves across the Edwards Plateau contain evidence that can help us improve our understanding of this critical interval. Those deposits were explored throughout the 20th century, but intensive study of these natural archives began only in the 1960s with the work of Dr. Ernest L. Lundelius, Jr. of The University of Texas at Austin (UT). The research conducted by Lundelius, his students, and colleagues documented the diversity of the late Pleistocene animal community and, using the newly established technique of radiocarbon dating, they placed that diversity firmly in geologic time (Lundelius 1967). The resulting record of the late Pleistocene, gleaned from caves and karst across Central Texas, helped to define our understanding of the late Pleistocene in Texas and North America and framed the debate over the cause(s) of the extinction event. That pivotal record of natural history was based almost exclusively on fossils recovered from dry caves.

As a Pleistocene enthusiast, I knew about the legacy of research at UT, and I started exploring some of these same dry caves when I arrived at the Jackson School of Geosciences as a doctoral student. In the past year, I learned about Pleistocene fossils scattered through underground rivers in water caves in the Hill Country. Last year, I found myself snorkeling through one such cave, plucking bones of extinct Pleistocene megafauna from the stream bed. I was hooked, instantly. The caves themselves were fascinating, and the fossil assemblages I was encountering (alongside fellow caver John Young of Spring Branch) were rich. Perhaps most significantly,



Figure 2a. Cavers passing a pair of rimstone dams.



Figure 2b. Cavers passing a pair of rimstone dams.

these caves contained bones from animals that were rare in the region. Those animals included the giant armadillo-like pampathere Holmesina, the mastodon Mammut, and even extinct tapirs (Tapirus). On the Edwards Plateau, the sporadic and sparse occurrence of these animals was often interpreted as indicating that the species were restricted to the riparian zone of river valleys and did not inhabit the drier, more open savanna habitats of the uplands. Alternatively, it is also possible that these animals were not inhabiting different habitats than the ubiquitous mammoth, bison, and camels, but that they existed in the region at different times – during warmer and/or wetter intervals of the late Pleistocene.

I connected the dots and understood that pampatheres, mastodons, and tapirs and the water caves that contain their fossils might hold vital insights into rarely sampled habitats, maybe even rarely sampled periods of time. Realizing that those fossil assemblages had never been formally studied, I began to coordinate landowner permission to collect fossils and initiated a research plan.

First on my list of sites to study were Benders and See-My-Shovel (aka CM) caves in Comal County. I was also aware of Honey Creek Cave and knew that the Vertebrate Paleontology Laboratory at UT held a small sample of fossils from that cave. The bones at UT were similar to the fossils I had seen in the other water caves, both in terms of their appearance and the animals they represented. That sample was partially described in George Veni's seminal report on the hydrogeology of the lower Glen Rose Formation (Veni 1997), but it had never been formally studied. The existing sample offered me the opportunity to include Honey Creek in my research, but I needed some personal knowledge of the cave to accompany a report on the fossils. Thanks to Patty Calabrese and Kurt Menking, I was able to visit Honey Creek Cave and the Boneyard in late May 2023.

Cavers from across Texas were assembled at Honey Creek Cave on the morning of 27 May, and everyone put in some work helping to clear brush on the surface before dropping into the cave in the afternoon. Most folks were making the through trip to the resurgence, but a crack squad of my fellow Underground Texas Grotto members volunteered to accompany me to the Boneyard and search for fossils. There were six of us for the trip – myself, Katheryn Jager, Garrett Smith, Randolph Colby, Greg Sullivan, and Isabel Newman. We made that unique 140-foot descent on the tractor-controlled cable down the shaft entrance. We were delighted to finally hit the rimstone dam waterfall and nearby pool, having baked on the surface in our wetsuits. We turned right and headed upstream.

Our group began encountering fossil bone long before we reached the Boneyard, and those finds continued throughout most of our trek. Randolph noted the first concentration of fossils in a gravel bar along the margin of the river passage. One flat, oblong, and heavily polished specimen stood out to me – it was a portion of the carapace of the extinct beautiful armadillo, Dasypus bellus. As we moved on, bones from rabbits and turtles dominated the assemblage. Portions of the shell indicated multiple different types of turtle, including slider-like pond turtles and terrestrial box turtles. Rabbits were represented by limb and foot bones as well as portions of the upper and lower jaws, always with the teeth missing.

The rimstone dams were beautiful and the largest I had ever seen. The pools on the upstream side of those dams were lined with beds of gravel and bone and were terrific places to search for fossils. As we reached each one, the team kindly insisted that I cross them first, allowing me to snorkel through the clear blue water. Each time, I plucked interesting fossils and carried them back to show the group. The finds in the first pair of pools (Figures 2a, 2b) included snake vertebrae, portions of turtle shell, fragments of extinct horse teeth, and a lower premolar from a large cat, something the size of a puma. Those bones and all others we observed were certainly ancient. Many came from animals now extinct or absent from Texas, and each was polished and rounded from being tumbled through turbulent water, dark in color, and heavy from millennia of calcite deposition.

That first set of finds primed our excitement, and the rest of the trip did not disappoint. Each time I snorkeled ahead, I came up with interesting specimens. Fossil bones were most abundant in gravel beds, but they were sparsely present in silty bottomed areas. A swipe of the hand underwater swept away patches of silt and often revealed a bone or two lurking below. As I swam, I was fortunate enough to observe three neotenic Eurycea salamanders and even a small, white isopod. That is what I love most about these river passages – the native biota of Texas, past and present, occurring together in the stream beds.

The fossil hunting in the gravel bars and exposed bedrock along the edges of the passage was also productive. In some areas, there were concentrations of bones weakly cemented together, cemented to bedrock, or even occurring in small conglomerates of cemented bone and gravel. In other places, gravel-filled pits contained abundant small fossils from several different species (Figure 3). We found many teeth from deer and large extinct horses. Rare but also present were teeth of other mammals, including a large extinct pronghorn and a giant ground sloth. Snake vertebrae were common, and many had a large spine projecting from the underside that indicated they came from a type of viper, rattlesnakes most likely. One of those vertebrae was impressively large and must have come from an individual that, in life, was larger around than most of our arms!

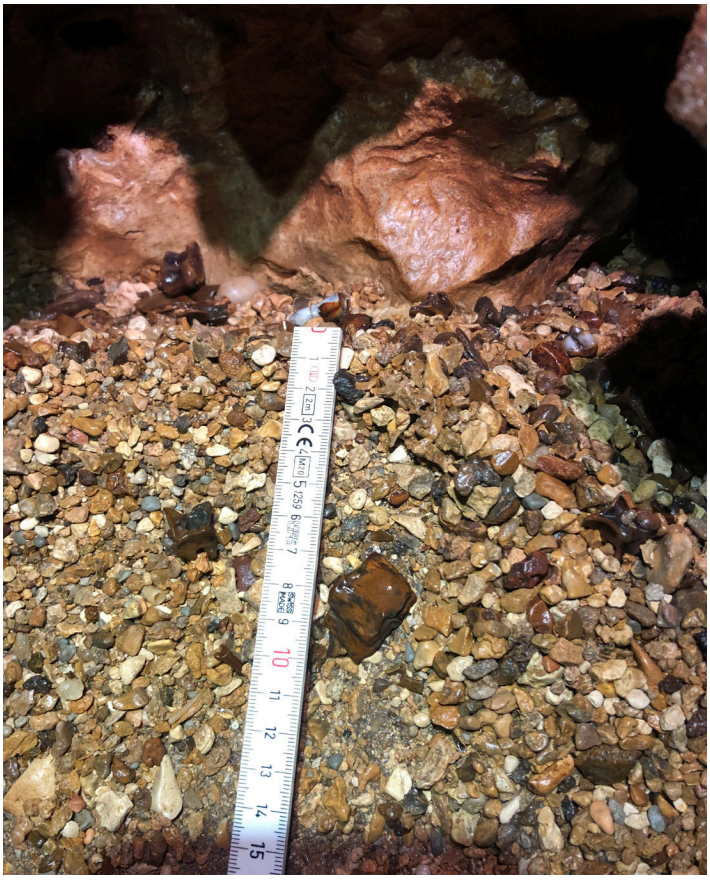


Figure 3. A gravel deposit with bones and teeth from deer, snakes, rabbit, and extinct horse.

As we reached the Boneyard, it became clear that the area contained intact deposits of gravel and bone. The finds became more frequent and even more interesting. Katheryn discovered the tapir tooth and, later, I found one, too. Isabel and Greg found an upper molar from an extinct giant camel (Figure 4). The diversity was excellent and, even more exciting, many of these animals were not yet represented in the paleontology collections at UT.

My knowledge of the diversity of Pleistocene vertebrates preserved in Honey Creek Cave grew as a result of our seven-hour trip to the Boneyard and back. My understanding of why those bones were there increased as well. The remains of those animals must have entered the river passage from the surface via recharge features and sinkholes. My hypothesis is that these bones accumulated in sinkholes until the vertical shafts merged with the water caves, and the underground rivers carved away those sinkhole deposits and washed the contents downstream. The behavior of the flowing water broke, battered, and sorted those contents and formed secondary deposits of gravel and polished, rounded bone. Well-preserved bones of rodents and other small creatures, however, suggested that the fluvial transport process was not always violent. I found a partial skeleton of a small snake with dozens of vertebrae still linked to each other. Clearly,

not everything had been dashed and smashed by the flowing water, and some bones, like that snake, had not been transported far from where they initially entered the river passage. The largest bone I observed was a toe bone from an extinct horse, but Kurt Menking reported seeing limb bones of huge mammals, such as mammoths and camels. The fossil assemblage had been modified by the behavior of the flowing water, but it seemed that it still reflected a wide swath of the Ice Age animal community and was not limited to the largest, smallest, or most common species that once existed on the surface.

Similar patterns are starting to emerge from the other water caves I am studying. Taken together, it appears that I may be able to eventually present a hypothesis that explains the depositional patterns and processes governing the preservation of fossil bones in river caves across all of the Edwards Plateau. That understanding is critical because, although each fossil is a piece of natural history evidence, this is a detective story. If we lack knowledge of how and why those bones ended up where they did, we are likely to misinterpret their implications.

Still, a comprehensive understanding is years away. For the time being, I am observing everything I can and struggling to piece together the disparate clues and detect commonalities. Two major outstanding questions nag at me regarding the Pleistocene fossils in the water caves of the Edwards Plateau: (1) Where are the bones coming from? (2) How old are these fossils? Answering those questions will be frustrating and challenging, but the potential outcome drives me forward. Lundelius suggested that the Honey Creek fossils were perhaps ~11,000 to ~15,000 years old (see Steele 1985, Veni 1997), but that hypothesis has never been critically evaluated. Determining the age and source(s) of these fossil assemblages will contribute to improving our knowledge of how these water passages became linked to the surface, with implications for understanding both the extinct and extant biota.

Although animals like tapirs seem exotic and foreign, they existed across North America and were once at home on this limestone landscape of Central Texas. The extinction of tapirs, by at least 10,000 years ago, was part of the fundamental shift in the ecosystems and environments of our continent and was coincident in time with a rapidly changing climate. Neotenic salamanders and other endangered species of the Edwards Plateau face similar challenges today. Each time I drop into another water cave, I am evermore convinced that the Ice Age bones lining the floor have a unique capacity to teach us about how nature works. If we can explain the extinction of North American tapirs, we learn more about the rise of the modern animal community and what the future might hold for the extant fauna.



Figure 4. An upper molar of a large extinct camel.

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Fact or Fiction? Historic Team Building for Deep Caving in Mexico

by Bill Steele

All images by Bill Steele.



Soon after I moved to Austin from Indiana in 1976, a friend of mine took me by the Oakwood Cemetery in East Austin, at the end of 16th Street just east of I-35, and showed me some grave monuments he thought would be excellent nighttime team-building, free-climbing challenges for the soon-to-start, world-class deep cave explorations. I'm not saying it ever really happened, but had it happened, this is how it may have happened.

I'm going to list the challenges by what they were called:

Glasscock – the challenge of Glasscock is to go through the top hole and go back through the lower slot without touching the ground.



Glasscock



The Ball


The Obelisk



The Cross


Jump the Gap


Jump the Gap



Zilker

Fact or Fiction?


Up Leap



Statue Lady


The Corner Climb

The Obelisk – the challenge of the Obelisk is to grasp two opposing corners, lay back, hop to the top, and sit there with your legs wrapped around the point. The hardest part is getting in the right position to go back down and not fall. It's a long way to the ground, and you'd be falling backwards.

The Ball – not a hard climb, but the object is to get as many people on the top gathered around The Ball as possible. Fourteen was said to be the record.

Statue Lady – a caver was said to have stood on her head on one foot. Someone also jumped (maybe did a controlled fall) off the top and landed on the grave, leaving deep footprints in the sod. It was speculated that maybe the cemetery workers would be spooked by this, wondering how they got there, and wondering if maybe that's how a spirit rises.

Zilker – get everyone on the top. Not as easy a climb as it looks.

Up Leap – this is very difficult and was said to have been accomplished by few. The challenge is to stand on the concrete line in the foreground, which is barely above ground level, and do a standing broad jump to the top of the short monument.

The Cross – the feat said to have been done on the cross was getting two cavers standing on its very top, toe to toe, balancing each other, then grasping hands, leaning back while holding hands, and with arms fully extended, rotating 360 degrees. Once accomplished, pull up close face to face, and climb to the ground without falling.

Rather Not (Dan Rather's family?) – The challenge on the Rather mausoleum is to climb directly up the front of it to the roof and back the same way. It's been said that it was done by chimneying in the doorframe, and when at the top of the doorframe, reaching to the overhanging eave, and climbing from there with arms only until feet could be used. Very difficult, both up and back down.

Jump the Gap – a team challenge. Everyone present runs around the rail and jumps the gap. Go faster every time around.

The Corner Climb – a directisimo climb straight up the corner of the building and back down. Difficult.

This story is only for the purpose of shedding historical light on something that may or may not have happened long ago, before most of you were born. It's said that no one got in any trouble for doing it or not doing it. Don't even think about doing it yourselves. There are better places in Austin for deep caving team building.

Cascade Sink

by Marvin Miller

The first documented trip by cavers into Cascade Sink in Kendall County was made by members of the St. Mary's University Speleological Society. The trip is documented by the words "St. Mary's Grotto" scratched into the rock over 225 meters into the cave. This may have been the trip taken by Orion Knox and others on June 8, 1959 (TSS database record). The St. Mary's Speleological Society was formed in 1954 and was active in various forms and with some breaks through 1976 (Kunath, 50 Years of Texas Caving, pg. 241). This message on the rock was noted by the next documented trip on July 6, 1969. Ron Bridgemon led a team from the San Antonio Grotto to explore the cave after being directed there by Jim Brummett, the manager of Cascade Caverns (The Texas Caver, Vol. 14, No. 8, August 1969). The trip inspired Bridgemon to organize a survey of the cave and he led two follow-up trips in August of that year (TSS database record). The survey effort then lapsed until February 1971, when Robert Henry and Bob Burney, two members of Bridgemon's team, returned to survey approximately 400 feet (122 meters). They knew the cave continued in water with 10 inches of airspace (TSS database record), but no one went back to continue the survey. A map was drafted a few years later, in 1973.

Throughout the 1970s, there were documented trips by groups from throughout Texas, including from Lubbock and Austin. The most noteworthy trip was made by San Antonio caver Randy Waters and two Cascade Caverns employees on December 23, 1975 (Randy Waters' notebook). They proceeded to the end of the map and then pushed further through a tight spot and in water with a low ceiling. They found a passage going out of the water and then continued in dry passage. The cave was not muddy, but they found a nice expanse of mud on a large, sloping breakdown block and inscribed their names and the date. About 50 meters later, they found the passage ending at two pits that dropped into darkness. The water had reappeared and was falling into the first pit. They rappelled about 20 meters down a beautiful flowstone wall into a long narrow room. At the near end, the floor dropped away into a dark lake. In the other direction, it ascended a steep mud slope to the ceiling. Randy told the story of his discovery to other cavers, notably George Veni, and created a sketch of the passage noting a lead that he thought might go "To Cascade



Gerry Geletzke emerging through the low spot from the entrance into walking passage. Photo by Marvin Miller.

Caverns" and features such as "Giant Travertines" and "Pits". In the ensuing years, local cavers visited the cave and tried to make it to Waters' find, but they were stopped by high water or had trouble finding the route. Waters never returned, and it is not known if anyone else ever made it to the room at the bottom. Waters died in 2006.

(Author's Note: If anyone has old stories of visiting the cave, please relay them to Marvin Miller mlmiller@gvtc.com).

The modern era of Cascade Sink exploration began when Lance Kyle, the current owner of Cascade Caverns, became concerned about development in the area – 5.5 km southeast of downtown Boerne – and especially about the newly released Kendall Gateway Study. This was in 2017. The study aimed at identifying solutions to traffic congestion in and around Boerne. Naturally, some of those solutions were new roads, and some of the proposed routings would impact Cascade Caverns property. One highway option was drawn immediately over the sinkhole entrance to Cascade Sink. Lance contacted George Veni for advice on how to counteract these emerging plans, and George emphasized that understanding the extent of Cascade Sink passages was an important part of understanding the local subsurface hydrology. A complete survey and map of the cave were needed. George suggested me for the task, and that is how I became involved.

George shared Waters' sketch map from 1975 with me. He also shared some warnings about the cave. The entrance pit drops 25 meters into a pool of water that is normally less than waist deep. The passage leading from the bottom features a low ceiling that gets lower as you go. After 10 meters, the passage tees into the base of a joint-controlled walking passage. About 15 meters down this passage, it is blocked at floor level by accumulated debris, requiring a scramble up and over to regain the floor on the other side. This blockage serves as a dam for water entering the sink. The dam and the low passage from the entrance pit create a potentially dangerous trap for anyone entering the cave when rain is forecast. Additionally, the sink drains a large area with three dry creeks flowing into it. The understanding was that any rain event that got the surface streams flowing would quickly sump the low passage. Drainage through the dam was slow and the passage might stay sumped for months.

I started the new survey of the cave on November 25, 2017 with MJ Gibbons and Greg Mosier. After rappelling the 25-meter pit, we quickly realized that we were going no further. The water met the ceiling of the ongoing passage just a meter or so into it. The cave was closed to us. Over the next several years, the owner, Lance, tossed around ideas of installing pumps or having cave divers penetrate the sump to survey the cave. Plans were made but none came to fruition.



Tobin Hays climbing out of the pit. Photo by Mio Spyker.



John Young. Photo by Marvin Miller.

In October 2019, a biological inventory and collecting trip found that the water level had dropped enough to allow passage through the low air space to the walking passage beyond, and plans were made to proceed with the survey. It was feared that the next big rain could sump the cave shut again so the survey was planned to be a blitz, with three teams entering the cave. Austin cave diver Jean Krejca had been making plans to dive the sump, was on the collecting trip, and organized the survey blitz.

On October 19, Jean, Andrea Croskrey, and Cruz St. Peter were the B-team, intending to run to the end of the cave, ascertain what was required to descend Waters' "pits", and then start surveying out. Ben Hutchins, MJ Gibbons, and Kara Posso were the A-team, with the task of traversing to the intersection at the end of the long, straight passage from the entrance tunnel and start surveying on into the cave there. Joe Schaertl, Arron Wertheim, and I started from the entrance, planning to survey to the start of the A-survey.

We were only about two hours into the survey, and just to the end of the floor-level blockage in the walking passage, when people in teams A and B started coming back. They had reached an unexpected sump at the intersection where the A-survey was supposed to start. So three teams did 143 meters of survey in short order. The old map was not too instructive on passage size in the area of the sump. The ceiling obviously

came down quite a bit and was now under water. Was it just a duck-under? A taller cross-section further into the cave showed that the passage did get taller, but maybe that was just a dome. It was surmised that a debris plug was probably damming things up. We were back to waiting.

The year 2022 was one of the driest years on record in the local Hill Country of Boerne and Kendall County. Month after month of very little rain and rivers drying up made me think of Cascade Sink often. Finally, on July 2, a fresh start was made to the survey. Gerry Geletzke, John Young, and I entered the cave. A young rattlesnake was sitting on a shelf close to the bottom to greet us. As we started traversing the cave, I could tell the water level was a good bit lower than it had been. At the end of the low passage from the entrance, where it had taken an ear dip to get into the walking passage, there was now a good 25 cm of space. When we got to the end of the survey, I was a little confused at first. I had thought the sump had occurred at the point of the T-intersection. Now I saw the passage heading straight ahead and soon realized that the ceiling came down before the intersection. Ceiling height was about 25 cm here also, but in 2 meters we were back in taller passage and at the actual intersection.

We found something odd at this point – an old steel angle climbing anchor bolted to a shelf on the near side of the low spot and just above the water line. Was this an anchor for a rope to assist in free-diving this low spot during high water periods? Considering the final cave profile produced by our survey and what water levels must be like further into the cave in a situation like that, it seems unlikely that anyone would consider it a worthwhile effort. Ron Bridgemon, who led the original survey in 1969, didn't remember the anchor. He speculated that they might have installed it to mark the end of survey after their first trip, wanting to ensure a recoverable station in case of a flood (personal communication).

Another team had come into the cave with us. Adam Daw, Crystal Grafft, Tobin Hays, and Mio Spyker passed us up at this point to run ahead and scout out the passage. This wasn't virgin cave, and we wanted to find out as much as possible about the cave while it was accessible. To the left at the intersection, the passage was plugged almost immediately at stream level with flood-borne debris, but the old map showed passage that way, and the scout team found that the plug was passable higher in the fissure. A small stream flowed from the bottom of the debris plug and down the right-side passage. The survey team went downstream. From this point on, the passage was mostly a hands-and-knees crawl in 20–30 cm of water. The passage was a tall fissure but got too narrow a meter or so above the floor, so walking was generally not an option. The passage width at floor level was typically 1.0 to 1.5 meters. After 40 meters of crawling, the floor sloped down and we were thoroughly soaked again by deep water and a



The enigmatic hanger on the other side of Harvey's Duck-Under. Photo by Marvin Miller.

low ceiling. After a short jog through an arch-roofed passage, the floor rose again and we had a place to eat lunch out of the water on a short cobble and gravel island. From there on the passage was walking height in about a meter of water. The survey for the day ended at a cobble and gravel dam. On the far side the passage sloped down 2 meters into a pool of water under a lower ceiling. The survey ended at station D23, and the total for the day was 105.5 meters.

The scout team had returned during our lunch stop and reported dry, crawly areas of passage, some belly crawls between slabs of bedrock, and several options for routes ahead. Remarkably, they found leopard frogs living, and apparently healthy, deep into the cave. We had been seeing large tadpoles throughout. They left the cave several hours before the survey team finished up. Tobin Hays was the last of her team to ascend the entrance pit. The little rattlesnake that had been coiled on the ledge chose that moment to join her in the pool. No one else saw it happen, but there is no reason to doubt her story – she somehow levitated above the pool as she made her frantic attachments to the rope and climbed away.

The next trip took place on July 23. The team was composed of Adam Daw, Gerry Geletzke, John Young, and me. The small rattlesnake was curled up on its ledge at the bottom of the pit. In about half an hour, we were at station D23. The cobble

dam sloped down into a pool under a lower ceiling and turned a corner to the southwest. The pool was small and the passage climbed out of it as a narrow bedrock-floored channel. Some small rimstone dams from an ancient flowpath were holding only gravel now, and then a narrow side passage entered. The corroded flowstone showed that it was the ancient source of the water. "Lead for skinny person" was noted on the survey sketch. More potholes and gravel followed and a few meters further on, a drop down into a small pool. At the far end of the pool, the passage changed character into a belly crawl on a bedrock slab. This was soon alleviated by a ceiling channel. The passage then sloped into another pool, followed by another bedrock crawl.

In the bedrock slab areas, I noticed an interesting phenomenon: single web-like strands hanging from the ceiling, each appearing to be anchored to the ceiling by a small white protuberance. Upon closer inspection, each white object was seen to be a creature that resembled a millipede. The creatures were immobile, and many had the strands hanging from their position. Small droplets of condensation or some other liquid clung to the strands. It reminded me of the habits of the glowworms of Waitomo Caves in New Zealand. I later found out that these were fungus gnat larvae.

At this point, a passage connected from the left. Exploration showed that it looped around and reconnected to the route straight ahead through the belly crawl. We surveyed that way through a short crawl that led to an interesting slope of softball-sized, smooth, white cobbles. The passage then became a tall, narrow fissure and headed downslope to connect with the route across the belly crawl in another shallow pool, which turned out to be the reappearance of the water passage. The water passage continued left but very low, while the fissure continued straight ahead along a wall of fantastically eroded shapes. It then got too narrow to stay at floor level and had to be traversed by chimneying along higher up. This stretch later got the name Burney Narrows, named for one of the original mappers, Bob Burney. After the Narrows, the passage, still a fissure, turned several sharp corners with the low, wide water passage visible through holes down below. At station D43 the fissure ended about 10 meters ahead, but there was a larger hole down into deeper water below. Exploration at water level did not immediately show the way on. In fact, the passage appeared, at best, to be blocked by formations. It was time to head out anyway, and we ended the day with 90 meters of survey.

In the pool at the bottom of the entrance pit, I found the rattlesnake had changed locations and was now coiled on the mud slope that came out of the water at one end, immediately under where I had hung my vertical gear. In trying to decide what to do to get the snake to move, I noticed a long cedar stick wedged by floodwaters between the walls of the pit and



Jordan Ogletree after breaking out into larger passage past the Water Squeeze. Photo by Marvin Miller.

just above my head. I removed the stick and was able to use it to hook my gear and retrieve it safely, without disturbing the snake. The rest of the team had worn their gear a bit further into the cave, leaving it at the end of the first pool, and thus were not affected by little Henry, as I decided to name the snake. This was in honor of another of the original mappers, Robert Henry. Robert Henry also has the Henry Duck-Under named after him – the place where we found the sump on the survey blitz trip.

Later, while enjoying a beer and eating dinner at the Dodging Duck in Boerne, we studied the notes and the old maps. The survey of the day had gone at least 10 meters past the end of the old map. Randy Waters' hand-drawn sketch of what lay beyond showed a wide, water-filled room. Along the left wall at the end of the wide area was a traverse up out of the water into continuing passage. I was confident we would find that passage on the next trip.

I was trying to schedule trips every two weeks and the regular crew was unavailable for August 6. Still feeling the pressure of imminent rainfall that would sump the cave shut, I put out the call. It was answered by Jordan Ogletree and Michael "Mowgli" Swartz. That morning, we said hello to Henry as we splashed down in his private lake and continued into the cave. Travel time to D43 was one hour.

Before heading out on the previous trip, I had climbed down into the water passage and was pretty confident that I knew where to find the mystery passage of Randy's sketch. I headed downstream in the deeper water, ducking under low-hanging stalactites to stay close to the left wall, where the sketch showed the passage exiting. In less than 10 meters, water met walls and ceiling and there was no way on. Disappointed, I turned toward the right wall which lay 4 meters away at the far side of a broad shelf that broached the water's surface.



The fungus gnat larvae with their web strands. Photo by Marvin Miller.

There was enough space to move along the shelf on my belly, but barely. My wetsuit material dragging over the rough texture of the rock did not make it easier. Looking ahead, it didn't get any bigger and there were formations that might block progress, but more significantly, we were out of the water, which didn't correspond with the old sketch. Mowgli and I discussed options and decided the only thing to do was to survey the going passage as far as we could, even if it didn't go where we wanted it to.

We headed back to D43 to prepare and then Mowgli took point position, setting stations, while Jordan took measurements with the DistoX2. Mio Spyker had graciously lent us her instrument. The new stations used the designator "E". After station E3, midway along the shelf, Mowgli ran into a problem. A fracture in the ceiling had allowed some formation growth, and it was enough to prevent him from pushing through. Jordan, being thinner, found another way around and got to the far side of the tight spot. He discovered that the shelf ended soon after and dropped into a shallow rimstone pool. He was in water again. The water level overtopped the pool and left about 20 cm of airspace, with lots of formations to dodge. Jordan had the foresight to bring a hammer with him in his pack and this was provided to Mowgli. Jordan also noted that to one side of a column, between the column and the right wall, it appeared that the space was slightly taller. Mowgli went to work with the hammer while Jordan explored ahead a little. He soon made everyone happy by reporting that he had found a passage going out of the water. This gave Mowgli greater determination to make it through and he soon did. After this they shot E3 to E4, E4 to E5, and then E5 to E6, out of the water. Later, closer inspection





The Randy Waters inscription. Photo by Mio Spyker.

of Randy's sketch showed that both the shelf and the column were depicted and were very accurate.

In 3 meters from E6, the passage doubled back on itself and became a fissure with the floor commonly in the water. There was not much mud present, but at E11, on the forward-facing slope of a large piece of breakdown, Mowgli found a message from the past written on a large patch of mud. The message clearly said "Randy Waters Dec. 75" and above Randy's name was the name "Doug". Forty-six and a half years later, the team was sharing in their discovery. From E11, the passage went down a slight slope into a pool of water and turned to the left, becoming suddenly much larger. Small lily pads adorned the edge of the pool. The water trickled from the pool through an area of small rimstones to fall over a meter-high drop into a nice, round pot of a pool and then to the floor. The ceiling here soared up into a tall rift along its center. A slight



Adam Daw in Murkstone Pool. Photo by Chelsea Dau.

duck-under led into the next room with bedrock floor and devoid of water or formations. From there the passage turned again to the northeast and in 10 meters came to a 4-meter down-climb into a shallow pool, with a large collection of stalagmites hanging above.

It was decided at that point to put the survey on hold and scoop ahead to find the rumored 51-foot drop into the final room. It would be advantageous to know if vertical gear and a rope would be required on the next trip, and it was thought that the drop was a good distance ahead. While I finished up the sketch, Mowgli reconnoitered and much sooner than expected was back to say that the pit was not far at all. With sketching done, we went to investigate. There were two holes that dropped into a void below. A light from above revealed a running stream far down on the floor of what looked like a relatively narrow canyon. One of the drops was laser measured at 20 meters from a solid rig point. The upper passage level ended soon after the second pit. A bit farther back in the passage, a third pit dropped down a short distance to a pool, but this was found to connect to the first pit. We discussed rigging and then headed back to extend the survey as far as possible until our predetermined exit time was reached. From the bottom of the 4-meter drop, a small hole led under the wall and then over an obstructing rock. On the far side of the rock, the passage got large again with large breakdown slabs leading up into an 8-meter wide, 1.5-meter tall passage bounded here and there by the walls of large, dry rimstone dams. A low, wide crawl headed back on the other side of one wall, paralleling the previous passage. A note was inserted in the survey book to check this lead. The last station of the day was set on one of the large dams. The pits were about 20 meters of easy passage ahead, but it was time to head out. All goals had been very satisfactorily accomplished. Our survey total for the day was 79 meters. The team started out at 5:45, and the last climber topped the entrance pit at 7:40.

On September 10 Adam Daw, Gerry Geletzke, Mio Spyker, and I entered the cave to find out what lay below the pits. For once, Henry did not greet us and we haven't seen the little snake since. Gerry got filtered out by the Water Squeeze – the tight bedrock crawl on the shelf below D43. He left the cave



Greg Mosier looking at a sumped passage on Nov. 25, 2017. Photo by Marvin Miller.

while the rest of us continued past inscription rock, the little rimstones and Rimstone Falls, the 4-meter climb-down, and the large rimstones to the top of the pit. We first surveyed the remainder of the upper passage, and then Adam and Mio rigged the pit while I sketched.

A drop of about 4 meters led to a ledge which also held a nice pool of water. The pool was feeding a small flow that fell into the pit. The free drop from the ledge was 16 meters, and it was a surprise. The whole length of the wall was a cascade of white flowstone. About midway down were several overhangs where the calcite deposition had created mirrored "wings" of draperies on either side of the central column. Viewed from below, this brought to mind an immense bird or winged being soaring up the shaft. Adam dubbed it Rising Phoenix Pit. At the bottom, a steep drop of about 3 m led to a long, narrow lake that extended back under the passage above. The near portion was wade-able – about waist-deep on Adam – but there was a deep hole near the far end. Different names have been applied to this body of water since the survey, but it is now officially known as Murkstone Pool.

In the opposite direction from the lake, the floor sloped uphill over breakdown to a huge boulder jutting at least 3m over the floor below. The boulder spanned between the walls of the chamber, which were narrowing at this point, and blocked access to anything farther up in the darkness. I found a knee bar between the boulder and the wall and a good handhold on top that allowed me to lever up. A muddy stair-stepped slope went 17 m up to just about 0.3 m from the ceiling and the room ended there. A tiny runnel from a ceiling fissure kept the mud sloppy. A wide part of the fissure looked climbable, but at that point it was several meters overhead with no way to reach it.

We surveyed the room and then headed out, leaving the cave at about 7:00.

One more trip was planned to survey the short bit of passage that went upstream at the intersection where our latest survey effort had begun. Except for occasional floods into the entrance, it looked like this was where all the active water in the cave was coming from. Before that trip happened, a fairly intense storm crossed the region and dry streams were flowing. Mio Spyker visited the entrance about a week

later to check water levels ahead of a planned recreational trip and found a stream of water still flowing into the cave. On November 5, when Adam Daw, Gerry Geletzke, and I entered the cave to finish the survey, I fully expected the passage to be sumped. I was surprised to find the water in the entrance pool to be as low, or lower, than I had previously seen it. At the dam there was evidence that water levels had risen several meters. That proved that under normal conditions, flood waters would not be held back for months at a time but would drain rather quickly, probably in a few days, and maybe even in a few hours. Long-term sumping of the entrance is conjectured to occur when flood debris plugs up a narrow spot in the passage, and there are many of these.

We started our survey upstream at the intersection of the long, straight passage from the entrance. The stream was coming out from under a log and mud debris plug. What appeared to be a bedrock bridge across the passage restricted the cross-sectional area at the floor which allowed the plug to form. We squeezed up into the narrow crevice of the passage above the bridge and down the other side. There the stream flowed down a slope of cobbles. A hands-and-knees crawl became a belly crawl under a lowering ceiling, but then the floor dropped down and we were in ponded water 0.5 meters to a meter deep. The pond extended 8 meters to a T-intersection. To the left, the water depth stayed the same to end at 11 meters. Here a cross joint enlarged the passage a bit. Immediately ahead, the walls narrowed and closed to a solid end above water level. However, probing with feet showed that the floor was sloping down. This was probably where the water was coming from. Back at the T-intersection, the right-hand passage was half the size of the left-hand, and the water was not as deep. Adam performed a sideways slither to reach the end, where it was intersected by another cross-joint with no viable continuation.

The survey of the cave is complete for now, but we need to take a diver with a minimal kit down to Murkstone Pool and to the probable inlet described above. The story of the cave continues.



Greg Mosier climbing out.
Photo by Marvin Miller.

Remembering Departed Caving Comrades: The Hall of Texas and Mexico Cavers

by Jay Jorden

Looking back at 2023, the Texas caving community lost some luminaries and legends who have added to our knowledge of speleology and strengthened the connections cavers thrive on to explore, study, and preserve cave resources.

Most were members of the National Speleological Society (NSS), the world's largest membership organization dedicated to exploration, scientific study, and preservation of caves. All were participants in projects and other activities of the Texas Speleological Association (TSA), which is the NSS Texas Region. A number were also mainstays of their local caving clubs – or NSS Internal Organizations.



Royce Ballinger in Dondole Cave with Ozona Speleological Society members. Photo by Scotty Moore.



Royce Ballinger

Royce Ballinger was a founder of both the Ozona and San Angelo College caving clubs. Additionally, he photo-documented the rare beauties of Mayfield Cave years before it was commercialized as Caverns of Sonora. He also explored and mapped Fort Stanton Cave before embarking on a distinguished teaching career and becoming an authority on lizards.



Butch Fralia with Bear, his caving dog.

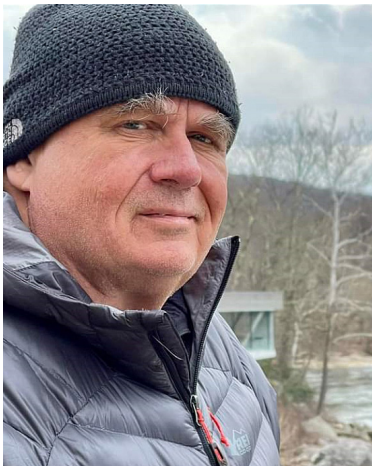
Butch Fralia helped bring organized Texas caving into the digital age through his computer skills and database expertise. He also consistently supported the TSA project at Colorado Bend State Park for years while creating the database that the Texas Speleological Survey (TSS) uses to catalog the state's cave information (along with digitized versions of The Texas Caver you now enjoy!).

Where do we begin with Bill Bell? A true Texas treasure, he's among the early pioneers of Texas–Mexico caving and a renaissance man who straddled the cultures between cowboys and hippies as an expert silversmith whose creations were sought by Hollywood actors, music stars, and more. His exploits south of the border were legendary, bottoming numerous pits in the rich caving area around Xilitla in the 1960s and joining the historic Sótano de San Agustín expedition.

On a personal level, Bill was church-loving and God-fearing but whiskey-drinking and plain-spoken. He lived life richly without regrets and suffered no fools.



Bill Bell at Orion Knox Celebration of Life 03/23. Photo by Jay Jorden.



John Brooks on hike.

John Brooks, who caved throughout the Southwestern United States and felt at home in both limestone of New Mexico and gypsum of Oklahoma, was a proud Aggie (Texas A&M) caver and equally proud of his magnificent cave maps. He surveyed in Carta Valley and Southern Oklahoma caves along with trips to the Guadalupe Mountains of New Mexico and Arkansas, notably Fitton Cave.

One of the original University of Texas cavers, Lynn Allman had his head in the stars – pursuing an aerospace career – and underground, searching across South Texas and Mexico for new caving leads. His travels led to Devil's Sinkhole, Caverns of Sonora, and the jungles of Southern Mexico where he and friends hoped to find Mayan gold.



Lynn Allman at 2014 reunion of UT Speleological Society.



Alexander Klimchouk with widow Nataly and son Oleg.

And, although not a resident of Texas or the Southwest, Dr. Alexander Klimchouk made an impact on the Lone Star State through his visits here and his fresh analyses of how our caves – in particular, maze caves – were formed. He was a guest of Geary Schindel, former NSS president, at his San Antonio home and visited Robber Baron Cave, among many others. The Ukrainian cave scientist was honored in early March during the Tales from Dark Places event at the Explorers Club in New York. There, his son Oleg Klimchouk recounted his father's participation in the NSS 1989 and 1991 Ukraine expeditions and other accomplishments – along with his own in bottoming Krubera Cave, the deepest in the world. Alexander's widow, Natalia, also spoke about his life. The Klimchouks were among a distinguished group of presenters, including several with Texas connections: Bill Steele, an Explorers Club Fellow and Dallas-Fort Worth Grotto member; Jean Krejca; and Vickie Siegel.

More about the cavers memorialized from 2023:

Perrie (Butch) Loring Fralia, NSS 27041 FE, April 9, 1946 – Dec. 1, 2023 – Butch was heavily involved in TSA projects, especially his long-standing work at Colorado Bend State Park. In fact, Butch's trips to the Gorman Cave area predated the park's formation, when the property was a fishing camp. The 5,328-acre park opened in 1988. Later, Butch became a TSA officer, serving as vice-chairman and organizing a number of spring conventions.

As a veteran database administrator and IT expert, Butch leveraged his skills as a volunteer with TSA and TSS, serving as webmaster for both organizations and also organizing databases to store information on their publications and caves, respectively. For TSS, Butch had a long tenure as director along with establishing and maintaining the website. For his accomplishments, he received the TSS Outstanding Service Award in 2020 (see the video presentation: https://youtu.be/_qMklOlj6sk?si=B1a_phKYXTX07qM9). Butch also became a NSS Fellow for important regional work. Additionally, Butch was a founding member of the Texas Cave Management Association (TCMA) – and a founder of Fort Worth's Maverick Grotto, where he was its first newsletter editor. Butch was 77 years old.

Royce Ballinger, NSS 3946, Feb. 21, 1942 – Nov. 11, 2023 – One of the earliest members of the Ozona Speleological Society, Royce joined as a high school student. He had already become an active caver, helping photograph Mayfield Cave in 1957 to document its beauty as a pipeline trench was being blasted in the area. The same year, he joined a group of Abilene and Dallas cavers accompanying author William Halliday to caves in the Carlsbad, NM area – and also attended the Texas Region's convention in Boerne. The next year, he returned to Fort Stanton to map the main passage, then gave a talk at the Ozona convention on 0-9 Well Water Cave. In 1960, he served as the Region's vice-chairman.

New Mexico later figured prominently in Royce's caving as he moved to Andrews and then teamed up with A. Richard Smith to map and study Fort Stanton Cave. Ballinger and Smith published a preliminary report while they were still in high school.

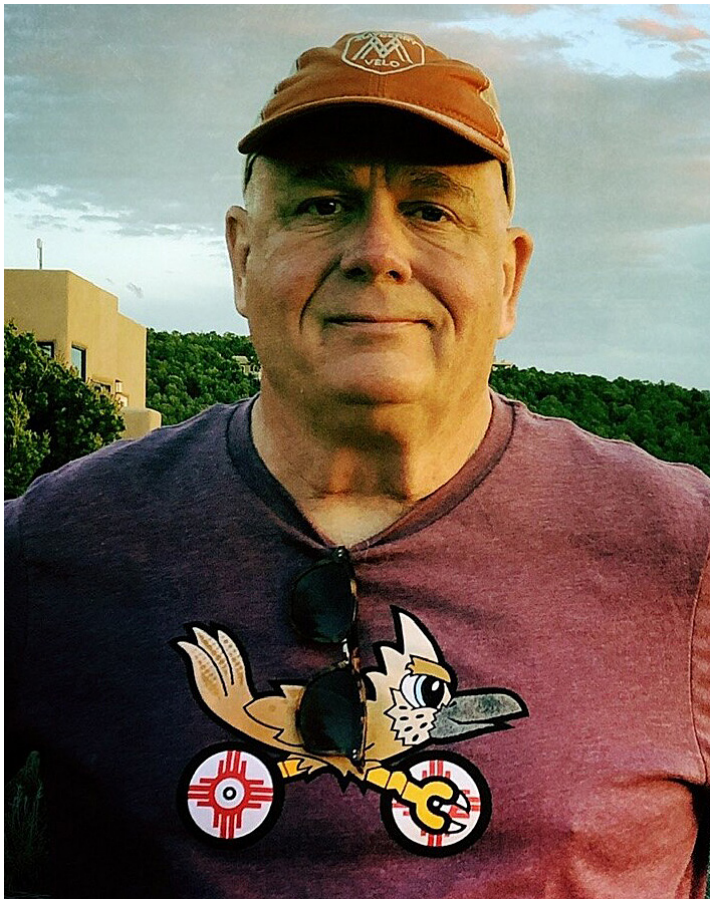
Enrolling at San Angelo College, Royce founded the caving club there and explored area caves, even venturing to Longhorn Cavern. He helped organize a TSA convention at the college in 1962 – all before embarking on an academic career that included a master's thesis at Texas Tech on a lizard genus and Ph.D. from Texas A&M in comparative ecology – lizards again! He was recognized as an authority on the creatures and authored at least 150 technical and research publications, retiring as professor emeritus at the University of Nebraska-Lincoln. Royce was 81 years old.



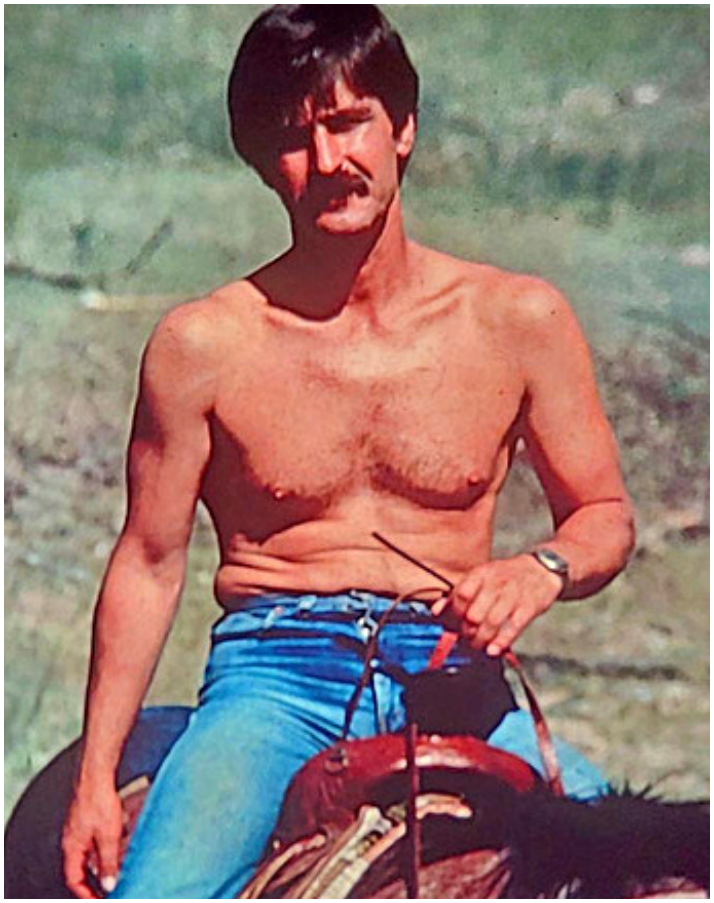
Bill Bell with Andy Grubbs at Orion Knox celebration 03/23. Photo by Jay Jorden.

William David (Bill) Bell, March 4, 1942 – Sept. 14, 2023 – Bill's caving reached legendary levels, especially in the early days of Texas-Mexico exploration. In the early 1960s, he helped Terry Raines and others recon in the Xilitla area by bus, discovering Sótano de San Antonio and other pits. They explored Sótano de Huitzmolotitla in 1963 and a year later launched the first expedition into Sótano de Tlamaya, which was mapped to -1,488 feet – then deepest in the Americas. Bill was a member of the famous 1967 Sótano de San Agustín expedition.

An accomplished silversmith who catered to Hollywood actors, musicians (including Willie Nelson), and other notables, Bill perfected his craft in Fredericksburg – preferring the Hill Country over his native Houston. His artistic talent was only equaled by his passion for caving, which also included exploration and biological collection (blind spider) in an Austin area cave; dabbling in speleo-officialdom (as a Caver Hall of Fame Awards committee member); intrigue during long road trips to and from Mexico (his Jaguar sporting tire chains, his Suburban towed by Goldline); and volunteering on a haul line at Devil's Sinkhole during the 1964 NSS Convention. Watch the video eulogy (https://youtu.be/Jmt6lv3KIHw?si=Thgl5CGsph9bQQTL). Bill was 81 years old.



John Brooks with New Mexico T-shirt.



Before Putin's glamour shot, there was Alexander Klimchouk!

John Preston Brooks, NSS 20233,
Oct. 21, 1957 – Sept. 9, 2023 – An award-winning architect and Texas A&M University graduate, John was active in Texas, Oklahoma, New Mexico, and Mexico caving. His cartography from survey work produced excellent cave maps, and his talent as an artist also resulted in remarkable pen-and-ink drawings and other cave art. (I recall him sketching the entrance of Sótano de las Golondrinas.)

John was heavily involved in the TCMA, where he was president for four years and a board member for seven years, and TSA as chairman for three years.

John was also a contributor to 50 Years of Texas Caving by Carl Kunath wherein some of his caving is chronicled – including exploring and mapping Wild Woman Cave and others in the Arbuckle Mountains of Southern Oklahoma; caving with the Aggie Speleological Society (ASS); and serving as a mainstay of the Dallas-Fort Worth Grotto for many years.

John presented a slide show on Oklahoma caving at the 1988 TSA Convention in Uvalde. He continued ridgewalking in recent years across the Oklahoma Arbuckles, exploring its caves, and venturing to Carta Valley in Southwest Texas to survey in Deep, Punkin, and Blowhole caves. John was 65 years old.

Alexander Klimchouk, NSS 31491,
Aug. 29, 1956 – April 11, 2023 – Alexander was best-known in Texas for having visited here regularly – and making connections between some of the state's caves and his work with karst hydrogeology and speleogenesis. A Ukrainian cave scientist, he believed that caves previously thought to have been formed the traditional way – through rainfall, as weak carbonic acid flowed underground, dissolving soluble limestone – were in fact created through hypogene forces, with acids welling up from below. He was the main driver of hypogene speleogenesis as a concept over the past 20 years.

Alexander attended the 2009 NSS Convention in Kerrville, where the Internal Congress of Speleology was held simultaneously. Two years earlier, Alexander was in Carlsbad, NM, for a nearly yearlong sabbatical with the National Cave & Karst Research Institute, where he proposed that hypogene speleogenesis was a widespread phenomenon and major catalyst in karst investigations. This and Alexander's death have led to the topic becoming a focus of the International Journal of Speleology for 2024.

Alexander's toast, "One World Underground," has resonated in both Europe and America in the years since he was a delegate among Soviet cavers visiting the United States in 1988. Alexander was just 66 years old.

Edgar Lynn Allman, Jr.,
Sept. 25, 1936 – June 23, 2023 – A native Austinite, Lynn joined the University of Texas Grotto while studying there and explored caves across South Texas and Mexico. In 50 Years of Texas Caving, author Carl Kunath called Lynn one of the legendary figures of Texas caving. He was among the second wave of caving activity within the UT Grotto in 1954 –1956. Lynn was on the first exploration of Red Arrow Cave in 1955. That same year, Lynn was assigned an instructor's position at the UT Grotto to qualify visitors to the meetings for club membership. His specialties? Camping and cooking. Memorable early caving included Devil's Sinkhole and Caverns of Sonora. South of the border, he searched the jungles of Southern Mexico for Mayan gold with friends.

Pursuing an aerospace career, Lynn worked for Boeing and then moved to Houston to work on the moon landing, where his work is commemorated at the Smithsonian Institution. At the 1994 NSS Convention in Brackettville, Lynn attended a UT Grotto reunion and was photographed with the group. Again in 2004, he attended a UT Grotto reunion at Mo-Ranch – and another in 2014. Lynn was 86 years old.

You can read even more about these cavers at The Hall of Texas and Mexico Cavers on the TSA website. It's our collection of stories — including tributes, obituaries, and photos — dedicated to departed cavers in Texas or Mexico. We seek to maintain a comprehensive repository for those who explored, mapped, and chronicled scientific discoveries.

Go to the TSA website at www.cavetexas.org/, open "Who We Are" at the top of the page, and you'll see the link to The Hall. Or just go directly to www.hall.cavetexas.org/.

Please see the "Lost Cavers" section at the bottom of the web page and share any missing information with me at jjorden@gmail.com. I'm also interested in "pre-obits": info on anyone living. Including biographies, CVs, resumes, and photos.

Thanks to all who have provided compelling stories and photos for the caving community. Our list of contributors is growing. Remember: We learn from those who have gone before.



Lynn Allman returning from Mexico.


What happens...
when it happens to you?
As an experienced caver, you know the limits of your skills and abilities. That confidence is what makes you a good explorer. The very nature of caving requires it.
You feel safe in the belief that accidents only happen to someone else.
But what happens when that someone is on the trip you're leading? Worse yet... what happens if it's you?
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Photo by Jansen Cardy, NSS #50665



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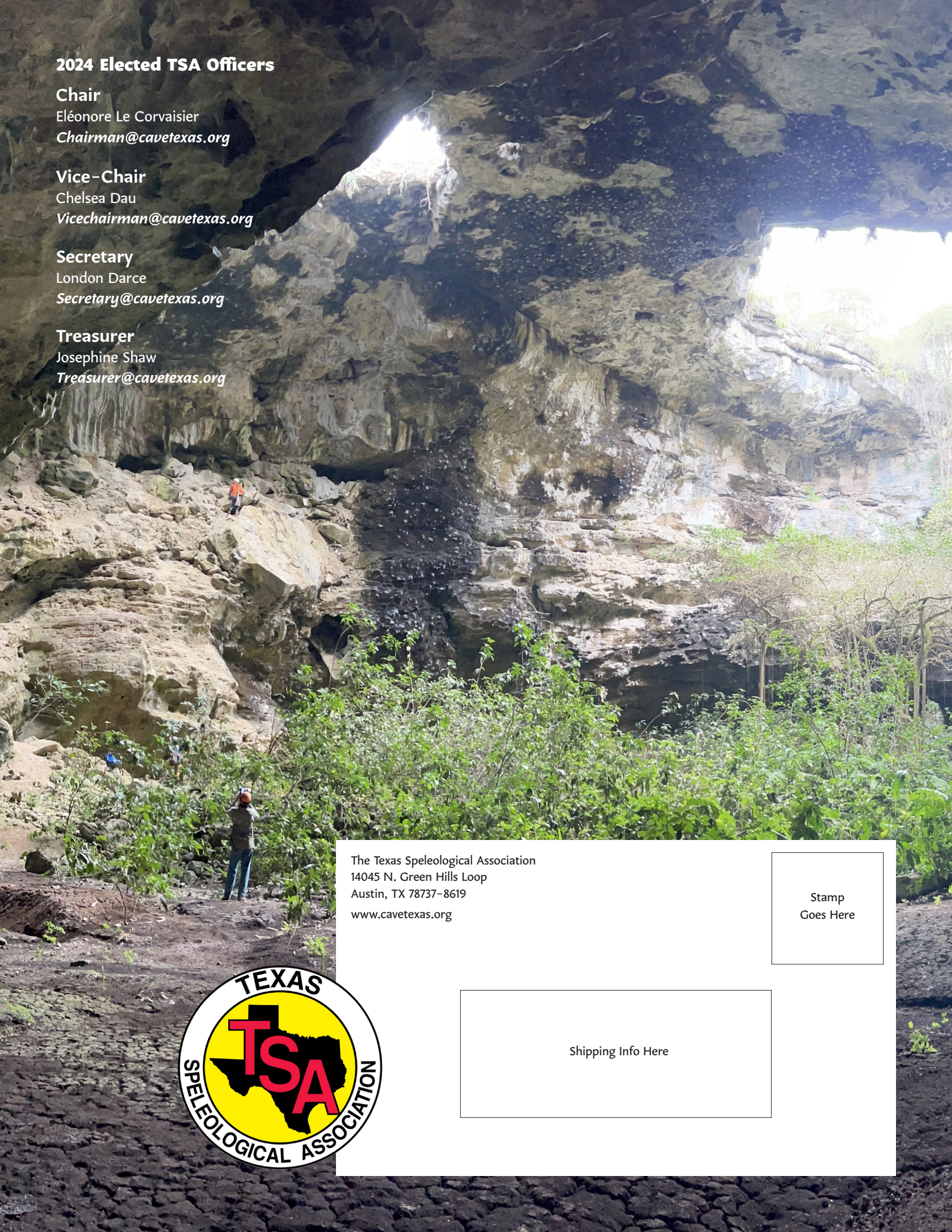
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Hosted by the Western Cave Conservancy

Photo by Gretchen Baker, NPS/GRBA



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