the towns of the

a magazine written by and for cavers

March 2015

Texas Caving Guide caving organizations explained

Texas Hydro-Geo Workshop

first ever, and a success

Punkin Survey

annual update

WHY BAT HANGS UPSIDE DOWN

by Bob West

Maybe you think bats hang upside down because their flight characteristics makes it pretty much impossible to take flight from the ground or because the ligaments attached to their toes curl the toes closed when at rest. These things may be part of the story, but I recently found a book in the library that told the story behind the "real" reason bats hang upside down. This story is from Lake Albert, the Congo.

A long time ago, Bat had his very own large and glorious kingdom. He, his wife and children were treated with pomp and royalty wherever they went. His fields were filled with goats and cows, his cropland was abundant with fruits and vegetables, and his chickens—his coops held more than you could count. His cooks prepared evening meals that always included some kind of meat, and this fact alone indicated the wealth that was at Bat's disposal.

One day, when Bat was out and about in his kingdom, he heard a strange voice. Lightning was in the area, down from his own kingdom high above the earth, and had a proposition for Bat. Lightning wanted the two rulers to draw up a pact of cooperation so their two kingdoms would, for all times, have peaceful relations. Bat was a lover of peace and good intentions and liked

Lightning's proposal. He commanded his cooks to prepare a grand feast for his new guest and the evening table was piled with dishes that most people would find impossible to even dream about. During the dinner, Lightning became attracted to a beautiful serving platter, a regal heirloom that Bat had inherited from his imperial ancestors. Lightning said, "Bat, I have never seen a platter as stunning as that. I simply must have it, my friend." Bat swept his hand around, pointing to all the fine things his home was filled with and said "Take anything else that may interest you, my friend, but that platter is not mine to give. It is something that belongs to the royal ancestral estate."

Most people would understand how the sentimental value of some things prevent even the question of them being given away. But not Lightning. He became insulted by Bat's refusal to gift him the platter and angrily left the celebration, rose to his domain in the sky in a storm, sending down fierce bolts of fire. In just minutes Bat's royal palace and all his possessions were destroyed.

With a broken, grieving heart, Bat stood beside the ashes of his home, his lost chickens and cows and goats. As the grief ripened and fell away, he was left with only anger and contempt for



Lightning's lack of understanding and brotherhood. King Bat then made a famous declaration that has stood through the ages. He and his children and all of their offspring would from that moment on turn their backs to the sky. They would hang beneath trees and from the roofs of caves, facing earth—forever a sign of their great displeasure at Lightning's terrible behavior.

This story is on page 57 of Spirits of the Wild, The World's Great Nature Myths, by Gary Ferguson, published in 1996.

I Googled 'Why bats hang upside down' and found many other stories. Here is a site that had a compilation of stories from around the world about many of bat's peculiarities: http://www.bedsbatgroup.org.uk/wordpress/?page_id=574#hangs

- B.W.



The TEXAS CAVER

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The editor reserves the right to edit inappropriate material, errors in spelling, grammar, or punctuation, and to edit for clarity. In the event of significant changes the author will be given an opportunity to review the changes prior to publication.

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FROM THE EDITOR



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Take lots of photos! Try to get faces, not backs.

If you have no way to check resolution, check file sizes before you submit photos. Files at least 500 KB should be printable.

Name your files for captions, or include a list with the file name and caption.

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texas caver

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Texas Speleological
Association is an
unregistered, nonprofit
internal organization of
the National Speleological
Society, and represents the
greater caving community
in Texas.

The TSA is comprised of both independent members and local grottos, and supports cave exploration and studies in and around the state of Texas.

The organization holds business meetings three times per year, organizes an annual spring convention for Texas cavers, and sponsors caving projects and events throughout the state.

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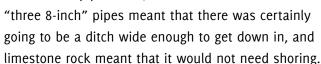
THE CAVING TRIP - THAT WASN'T

by Bill Bentley

It was Wednesday, August 13, 2014, when I got a phone call in the evening from Chuck Anderle, whom I

had not talked to in 14 to 15 years. It would seem they found a cave. My first question was, "Where is this cave?", followed by, "Who found a cave?"

The answer to "Where?" was in Reagan County, Texas, and the answer to "Who?" was a pipeline crew digging through limestone to bury three 8-inch pipes. Well,



"Do you know how deep they were digging?" I asked.
"No."

After several more phone calls, we determined our work schedules allowed us to make the trip on Friday, August 15, 2014. Even though it was a last-minute decision before it was finalized, these are the best kind of trips. We departed at 6:30 am fighting the oil field traffic. Arriving at the destination, we found the landowner away from home. It was cool for a morning in August, but that didn't last, as it was soon way over 100° in the West Texas desert.

We arrived at the pipeline construction area with our hard hats, lights, knee pads, gloves, and the usual digging equipment. As we walked down the ditch row, we could see it was a good six feet deep. A few minutes passed and an important-looking truck pulled up and the driver rolled down his window and told us he was the foreman. We introduced ourselves and explained why we were there. He told us that the landowner was up the road looking for us, and that he would take us to where they had hit several caves.

I was trying not to get overly excited, as I knew what disappointments the years of looking for caves across this area had yielded me in the past. Maybe we would get lucky this time and find a cave of significant size and loaded with some unique formations.

Once we arrived at the impact point in a shallow ravine and walked along the ditch row, we could see no less than five openings, ranging up to the size of a large truck tire. We unfolded a ladder and were soon in the three-footwide ditch, all geared up as if we were going on an all-day trip underground. Hey, it's best to be prepared.

I decided to check out the largest hole, and it took me a couple of hours

to clear the debris that had fallen in from the rock trencher. It turned out to be a bell-shaped dome that had passages leading off of it. That description would be fantastic if I was three inches tall, as the whole dome room was only about four feet in diameter at its widest and about three feet deep at best. If it had not been open to the ditch construction area, I would have not been able to get in it at all. The passages that lead off were about eight inches high and a foot or so wide.

Meanwhile, Chuck—using a five-foot long steel rock bar—started breaking the limestone cap on one of the smaller holes. His turned out to be a passage the same eight inches in height and as long in one direction as the length of his arm with a small shovel extended. The other side went a few feet and turned.

The landowner returned and we visited for a while and dug again to no avail: another disappointment to add to my list. We left around 2 pm and drove home; the conversation consisting of discussions on White Nose Syndrome, recent discoveries in Spider Cave, Lechuguilla Cave, Fort Stanton Cave, and Carlsbad Caverns.

It is still natural to get excited when the phone rings and someone one the other end says, "They found a cave!"

Cavers who didn't really go caving included Chuck Anderle and Bill Bentley.

THE T-ORGANIZATIONS

THE DEFINITIVE GUIDE

by Bennett Lee

I have heard a lot of confusion about the caving organizations in Texas, collectively known by many Texas cavers as the "T-Organizations" (TSA, TSS, TCMA, TCC, TCR). Each organization has a specific purpose and its own special niche. However, I know many people who have been caving for years but don't know which T-Organization does what or even which T-Organizations they joined.

To clear up the confusion, I have created this definitive guide. So read on, my fellow cavers, and you'll probably learn something. Even I learned more about the structure while researching this article, and I have been caving in Texas for over 25 years and an officer of three organizations mentioned herein.

GLOSSARY

CaveTex The most widely-used email list for Texas caving and related activities. Most state-wide cave trips, karst surveys, and cleanup projects are posted on CaveTex, along with many local caving trips, Grotto announcements, gear reviews, etc.. CaveTex is privately owned and operated and is not affiliated with any other caving organization. www.texascavers.com

Grotto Local chapters of the NSS where cavers meet regularly to discuss caving. A Grotto typically serves a city and its surrounding area, although some major metropolitan areas may have multiple Grottos. Meeting times, membership requirements, and dues vary by Grotto, but all Grotto officers, as mandated by the NSS, must be NSS members. Currently, the Grottos in Texas are Aggie Speleological Society (College Station), Bexar Grotto (San Antonio), Dallas-Fort Worth Grotto (DFW Metroplex), Greater Houston Grotto (Houston), Lubbock Area Grotto (Lubbock), Permian Basin Speleological Society (Sonora), and Underground Texas Grotto (Austin).

National Speleological Society (NSS) The nationwide organization that oversees caving in the United States from its office in Huntsville, Alabama. The NSS publishes the NSS News, the Journal of Cave and Karst Studies, American Caving Accidents, and an annual Members Manual. Starting April 1, 2015, the NSS has simplified its membership structure to only three membership types Regular, Associate, and Institutional (see the February 2015 issue of the NSS News for complete

details). Regular membership is \$45 annually and gets you print editions of the NSS News, or you can opt to receive only the digital format for \$30 annually. www.caves.org

NSS News A national caving periodical published by the NSS. As of April 1, 2015, all old and current NSS News are now available in digital format with your NSS membership (formerly, digital formats were withheld until one year after publication). Print editions are included with your Regular membership, but you can opt for only the digital format. See 'National Speleological Society' for rates. Current and old issues are available for download via the Members Portal of the NSS website. www.caves.org

Region A loose association of Grottos within a geographic area. Regions generally cover a state or several adjoining states. In Texas, our Region is the Texas Speleological Association. Texas cavers who are not associated with a Grotto can still join the TSA.

Texas Cave Conservancy (TCC) An independent cave conservancy that is primarily based in Austin. The TCC works with real estate developers to protect caves, usually by creating a cave preserve within a housing development as a community feature. The TCC hosts a semiannual Cave Day in Austin, opening many caves in north Austin to the general public. www.texascaves.org

Texas Cave Management Association (TCMA)
An independent cave conservancy that buys and manages cave in Texas. TCMA owns Whirlpool Cave in Austin, Robber

Baron Cave in San Antonio, the Deep and Punkin Preserve, and others across the state. TCMA publishes Passages and holds a fund-raising auction at the TSA Spring Convention. TCMA membership is currently \$15. www.tcmacaves.org

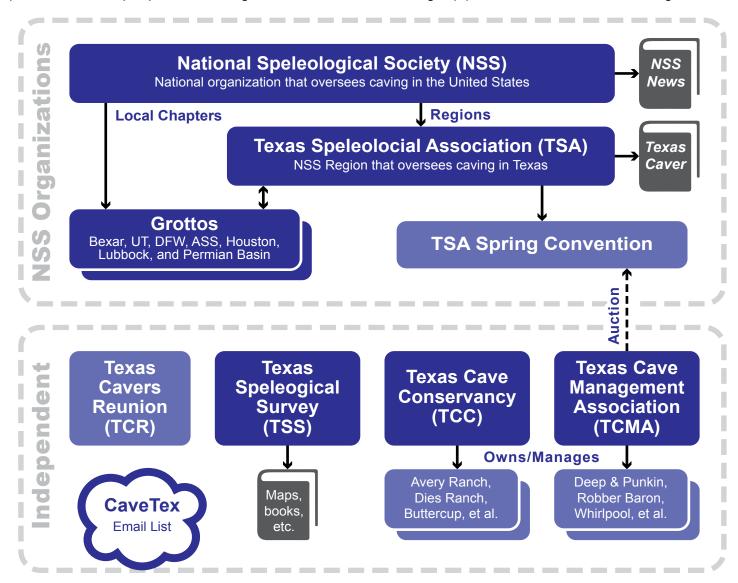
Texas Caver The Texas caving periodical published by the TSA. The Texas Caver is available in digital formats, which is included with your TSA membership, and optionally as print editions. See 'Texas Speleological Association' for rates. Current and old issues are also available for download in the Members Area of the TSA website.

Texas Cavers Reunion (TCR) The largest annual Texas caver event, usually held on the third weekend of October and attended by 300-500 cavers annually. It includes contests (Speleolympics, rope climbing, and surveying), a large cave-vendor area, a group meal Saturday evening, and an awards ceremony Saturday night. TCR is independently operated and is not officially part of or funded by any other caver organizations.

Texas Speleological Association (TSA) A Region of the NSS that oversees caving in Texas. The TSA publishes the Texas Caver and organizes the TSA Spring Convention. TSA membership is currently \$15 annually and includes digital formats of the Texas Caver, while \$25 annually gets you print editions. www.cavetexas.org

Texas Speleological Survey (TSS) An independent organization that collects and maintains locations, maps, and reports on caves and karst features in Texas. If you find a cave, survey a cave, write a report on a cave trip, etc., you should submit a copy to the TSS. Likewise, if you need information about a particular cave, the TSS probably has information. The TSS also publishes caving books and a CD with maps of Texas caves divided by county. www.texasspeleologicalsurvey.org

TSA Spring Convention An annual event held by the TSA, usually in March or April. It consists of numerous caving presentations during the day, a photo salon, a map salon, a group photo, and the TCMA's fund raising auction.



DOING THE MONSTER MASH

THE 'INCIDENT' AT SPRING CREEK CAVE, KENDALL COUNTY, TEXAS

by Geary M. Schindel

Bexar Grotto of the NSS Administrative Vice President, National Speleological Society

On Saturday, February 7th, Aspen Schindel and I attended a joint Houston and Bexar Grotto Trip to Spring Creek Cave located in Kendall County, Texas. The trip was organized by Bill Steele who did a great job herding the cats and organizing some great spring like weather.

Spring Creek is a wonderful multi-mile long water cave with some very nice passages and lots of swimming, wading, and crawling in water. I was in the first group that entered the cave which included me, Tom Florer, Aspen Schindel, and Alex Velasco (Houston).

We met up with Wil, and two other cavers from Houston at the entrance. They were going to check a lead in the cave. The goal for our group was to reach the Shower Stall and also visit the sump in the left hand passage. We had a relatively uneventful trip into the cave, admiring the large passage and noting the clear water since we were the first in the cave that day. We did see a number of nice fish in the stream. Most seemed to be catfish but a few were smaller sculpins and minnows. Most of the passage averaged 3 to 5 meters wide and 2 to 3 meters tall. A number of nice flowstone formations were seen along the passage. We ended up swimming through much of the cave. In places where the mud was quite deep and the water was shallow, it was more efficient to salamander by laying in the water and pulling yourself along with your hands in the sediment.

We passed through the low air spaces before reaching the Shower Stall and admired the nice

flowstone and draperies in the 6 meter high dome. The Shower Stall is where most of the water in this passage enters the cave. The passage is an unusual dome and connects an upper level stream passage to the main base level passage in the cave. The Shower Stall has been ascended on previous trips and there is a standing rope offering access to the passage. However, vertical gear was required and there was a significant flow (spray) of water descending. It made talking or even looking up the dome difficult.

On our way out of the cave, we had passed a number of groups heading in. Tom Rogers, Gary Donham and Jake Kirk were in one group. Bennett Lee, Robb, Missy, and Journey Bissett, Pam Campbell, Ryan Morales, and Mallory Mayeux were in another. All of the traffic had stirred up the sediment which made it difficult to detect rocks and shallow spots. As we were transecting the entrance passage on the way out, Alex was in front, moving at a good clip. As she hit the shallows, she was calling out the presence of rocks and mud, etc. As we neared the entrance, I was salamandering though a shallow spot, trying to support my weight in the water and avoid the deep boot-sucking mud-not a care in the world and in my moment of Zen. But the water was rapidly getting shallower and my chest finally ran aground. It was at that point that I felt something quite large making a thrashing motion though the rubber of my wet suit. Whatever it was, I had it in a



full body press-mano a mano-a fight to the death.

Now I'm a pretty big guy and have done my fair share of wet suit caving. There isn't much that scares me in the water as I'm a follower of the "strong like bull and smart like tractor" school of caving. But I'm not used to having a cave come alive under me. It was at that point I pretty much jumped straight up and screamed like a little kid (choose your preferred gender). Something was defiantly trying to rip open my chest—yes, a sneak attack under the cover of muddy water. At first I thought it was a dreaded copper headed water rattler or maybe a stingray. It then became apparent that it was a four or five foot long catfish—that was later downgraded to less than 18-inches. I had trapped it in the shallows and tried to mash the poor creature with my chest.

But catfish are tough and it was fighting back—and maybe had the upper hand with me in the water.

Now I claim I was actually just trying to yell a warning to the others in the group and get my feet under me. But they all agreed they saw me fighting for my life and claimed I looked like a fish out of water—doing some serious thrashing, flailing, and yelling. We'll have to agree to disagree on that point but I think I lost some cool points with the daughter. I envisioned an American Caving Accidents report (and possible Darwin Award) for knocking myself out on a low ceiling and drowning in 6 inches of water—to be consumed later by a family of catfish. Luckily, the cave roof was about 10 feet above the water. The fish swam away to scare cavers on another day. An exciting ending to a great day of caving.

THE TEXAS HYDRO-GEO WORKSHOP

by Geary Schindel

On the weekend of September 26–28, the Bexar Grotto held the first Texas Hydro-Geo Workshop at Cave Without a Name, near Boerne, Texas. The event was created to bring students, academicians, and practitioners together as a hands-on learning experience. The event would not have been possible without Tom Summers, owner of Cave Without a Name providing a wonderful location. Tom's staff, Chris Webb and Mike Burrell, provided exceptional support in helping organize the event.

Friday evening and Saturday morning started off wet with approximately one inch of rain falling throughout the night and morning. However, the event still attracted 220 participants during the weekend.

Participants explored many different techniques for collecting data from soil, rock, sediment, and water and took advantage of the opportunity to work with leading researchers from across the state and beyond.

Participants could choose between twenty different modules including surface and borehole geophysics, tracer testing, stream gauging, water and sediment sampling, cave mapping, caving and cave safety, career development, environmental and geotechnical drilling, groundwater level measurement, electronic data collection, cave geology, field safety, karst feature evaluation, field instruments, field note collection, etc.

The Bexar Grotto volunteers did an outstanding job organizing the event and included event registration, providing ice, water, toilets, first aid, and general organization. The event was catered by Christi Burrell, Missy Bennett, and Joe Ranzau with help from the grotto. We had to remind the participants that you normally don't eat like kings in the field unless Christi is along.

Most of the colleges and universities in Texas were represented and even a few from outside



the area including the University of Minnesota, University of Arkansas, Hofstra University and even our own George Veni from the National Cave and Karst Research Institute was present.

The event had numerous sponsors including the Edwards Aquifer Authority, which contributed equipment, funds, and personnel that led many modules.

Terracon Environmental Consultants and Vortex Drilling provided an excellent module on environmental and geotechnical drilling and brought their drill rig and support equipment. Jim Major and Kevin Bryant provided a detailed hands on experience in safely and professionally collecting soil and rock samples along with Vortex's very professional drillers.

Evelynn Mitchell (St. Mary's University), Ron Green (Southwest Research Institute), Mustafa Saribudak (Environmental Geophysics Associations), and Alf Hawkins (Hawkins Exploration) provided the equipment and instructions on surface geophysical methods including Ground Penetrating Radar (GPR), Resistivity, and Natural Potential, respectively. Some of the geophysical transects were performed over the cave and some useful data was obtained in spite of the rain.

Joe Mitchell and Marvin Miller (Bexar Grotto) offered a module on cave mapping that was well attended. Participants worked in the commercial part of Cave Without a Name and got a taste of instrument reading, setting points, and keeping book.



Tom Florer and Bennett Lee (Bexar Grotto) presented a module on caves and caving safety. They demonstrated safety equipment and techniques for safe caving along with examples of good landowner relations.

Steve Johnson (Edwards Aquifer Authority) along with Dr. John Van Brahana (University of Arkansas) and Dr. E. Calvin Alexander (University of Minnesota) provided a module on Tracer Testing in karst. Dye was injected in the stream in Cave Without a Name two weeks before the module and charcoal and water samples were collected at the spring using automatic water samples. Participants analyzed the water samples for dye and developed a breakthrough curve. A water multi-parameter probe was also analyzed for dye, water temperature, conductivity, etc. Groundwater velocities were calculated and the instructors also presented a number of case histories.

Dr. George Veni, former Texan and Executive
Director of the National Cave and Karst Research
Institute in Carlsbad, New Mexico presented modules on
karst feature evaluation using the TCEQ form and also
conducted a Cave Geology tour of Cave Without a Name.
Both modules were well attended in spite of the rain.

Mark Dobson and Eric Wolff with DNA Environmental presented an outstanding module on borehole evaluation using drilling cuttings and well logs. They brought cuttings and geophysical logs from some wells from around the state. Binocular microscopes were provided to perform drill cutting analysis and comparison to well logs.

The participants were also provided a module on Career Development by Chelsea and Tim McGovern and Bud Holman with the South Texas Geological Society. A number of students explored various career paths in geology and the environmental sciences, interview techniques, resume review, and the importance of internships and mentorships.

A module on groundwater level measurement, monitoring and potentiometric surface mapping was presented by David Gregory (EAA), Dr. Peter Knippet (Texas A&M) and Dr. Yongli Gao (UTSA). Participants practiced measuring water levels using various instruments including steel tape, E-line, and pressure transducers. Example data were provided to develop potentiometric surface maps and practice three point problems.

Edwards Aguifer Authority personnel Gizelle



Luvanuo, Matt Schwartz, and Brent Doty presented a module on collection of water and sediment sampling at Krutzburg Canyon Natural Area, a Kendall County park near CWAN. Water samples were collected and participants performed field analysis for temperature, conductivity, pH, turbidity, and alkalinity. Chain of custody and sample transport procedures were also covered.

Dr. Marcus Gary (EAA), Dr. James Ward (Angelo State University), Alan Andrews (Barton Springs Edwards Aquifer Conservation District) led a stream gauging module on the Guadalupe River where participants utilized Flow Trackers to measure discharge at the river. This is the same techniques used to develop stream rating curves.

Rob Esquillen and Jenny Adkins (EAA) provided a module on borehole geophysical logging. The EAA logging van was on site, and Rob and Jenny exhibited many of the tools used to determine water quality, borehole diameter, and rock type in a drilled well. The process is important in identifying rock units and well completion methods. They also demonstrated the mini downhole camera and lowered it down the well that intersects CWAN. Participants could view people walking on tours in the cave.

Dr. Joe Yelderman (Baylor University) and Ron Vaughn (EAA) provided modules on field book management and data collection and also field instruments including GPS, Suunto and Brunton Compass use. Field books, GPSs, rock hammers and compasses are the basic tools of a field geologist. The module was important for students getting reading for geologic field camp.

Eric Holman (Office of Homeland Security and retired BSA Venture Crew 410 Leader) provided a well-attended module on field safety. Topics ranged from dealing with heat and cold, wild animals, basic first aid and included some case histories involving geologists and cavers.

Dr. Alan Dutton (UTSA and STGE) presented a timely module on being comfortable in the field. This included how to prepare for field work, some of the hazards and pitfalls in dealing with the natural elements which trying to collect quality field data.

Sarah Eason and Jenna Pace presented a module on the use of the ESRI Collector software, which includes data collection capabilities using either Apple or Android technologies. The Collector programs incorporates GPS coordinates, photographs, field notes, on to topographic or geologic maps.

On Saturday evening, after an amazing feed by Christi, Missy and Joe, everyone headed into the cave for a lecture by Dr. Robert Brinkmann from Hofstra University in Queens, New York. Bob is the director of the new suburban studies program at the university and an expert on sustainability. He has written numerous books on topics ranging from sinkhole development in Florida to Street Sweeping to Sustainability in the Environment. In a past life, Bob was also employed as a diamond prospector in North America for a major diamond consortium and is the chairman of the board of the National Cave and Karst Research Institute. He discussed sustainability and karst resources to the crowd.

After Bob's talk, Dr. Brahana was the master of ceremonies for the first Yodeling and Hog Calling contest in CWAN. It was great fun and there were was a three way tie for first place in yodeling. The winners were given prizes from our generous sponsors.

Bob had a very nice post titled Saving the Environment, One Yodel at a Time. You can view the video of one of the winners on Bob's blog at http://bobbrinkmann.blogspot.com/.

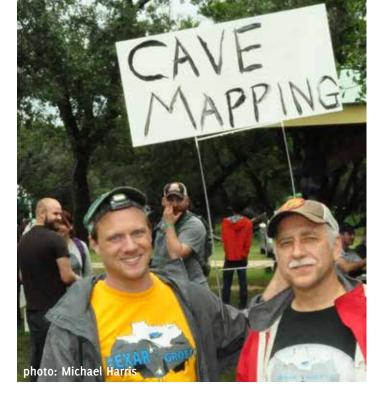
After the keynote speech and yodeling contests,



the group retired to the campground for lighting talks presented by Dr. George Veni, Dr. Calvin Alexander, and Geary Schindel. A campfire helped to dry spirits and clothes after a wet morning along with brownies, cookies, and coffee provided by Christi, Missy, and Joe.

The event would not have been possible without some very key players. First, the generous support of our many sponsors: Edwards Aquifer Authority, South Texas Geological Society, San Antonio Geophysical Society, Advanced Geophysical Instruments, Barton Springs Edwards Aquifer Conservation District, Exploration Instruments, Environmental Geophysics, DNA Environmental, Terracon Engineering and Environmental Consultants, Vortex Drilling, St. Mary's University, and Southwest Research Institute.

Second, the Bexar Grotto did an amazing job of coordinating the event. Gregg Williams, Michelle Smith, Pam Campbell, Rhea Laprise, and Sue Schindel ran registration. Pam Campbell was the treasurer of the event and kept the funds straight. Michelle Bryant provided environmental services hauling off waste. Rob Bisset, with his extensive experience as a large project manager/ engineer took over the job of logistics and procured ice, water, tables, canopies, and cooking equipment. Randy Baker provided wonderful support in developing the web page for the event and Don Arburn provided the graphics for the event T-shirt. Gregg worked with the shirt printer to make sure they came out correctly and on time. Mike Harris, Bennett Lee, and Sriram Madabhushi were event photographers. Sriram has made his pictures available for viewing. Alan Montemayer, Tom Florer, Bennett Lee, Sue Laprise, Kim Herzong, and Rhea Laprise helped where help was needed and acted as general roustabouts - keeping coolers full of water and ice, serving food, gophering, and doing whatever was asked. Eric Holman provided



first aid services and last, but most important, Mike Harris provided port-a-lets support (no, he didn't hold them up during the rain, he placed the order, made sure they showed up, cleaned and maintained them).

The participants have to be commended. The conditions for the event were trying, with the rain, logistics of a new event, and the long travel some of the participants endured. Everyone was polite and well mannered, jumped in to help where they could, and generally had an outstanding time. Evaluation forms indicate that everyone was very pleased and the event was a great success.

And a special thanks to Mr. Tom Summers, owner of Cave Without a Name and his staff, Chris Webb and Mike Burrell, for the years of outstanding support to the caving community and offering up CWAN as an excellent location for the workshop.

The grotto is now gearing up for the 2015 event which will be even better.

WORKSHOP ORGANIZERS:

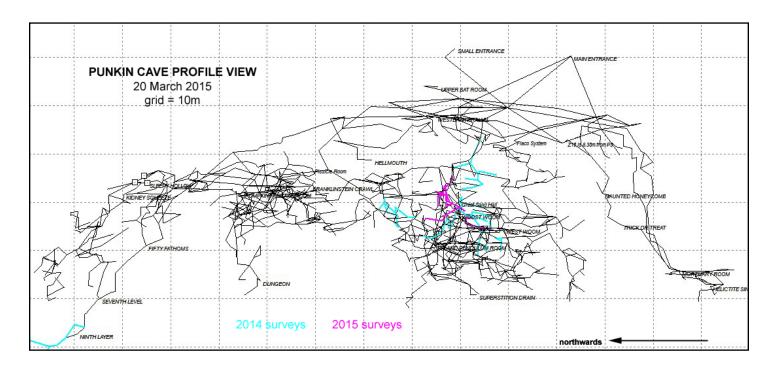
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PUNKIN SURVEY UPDATES

by Jim Kennedy



Survey work at the Texas Cave Management
Association's Punkin Cave has slowed from the early
years due to personnel changes and the tedium of
mapping the vast number of loops and necessarily short
survey shots. But every survey team still manages to
map into virgin passage, and there is probably at least
another kilometer or so of known passages still to be
surveyed. This is a brief description of the last two trips.

Expedition 21: 28 February to 2 March 2014

Twenty-five cavers from all over Texas (and one Canadian!) gathered at the TCMA fieldhouse in Carta Valley, Texas, for the only survey trip of 2014. It was the first trip since December 2012, and we were more than ready! I had taken time during the break to go through all the survey notes, and had compiled a list of 192 leads, so we had a lot to work on. To sum it up, it was a great trip. The weather was fantastic, the company superb, and we got lots accomplished both on the surface and below.

Gill Ediger and Galen Falgout headed out early on Thursday evening to start working on some juniper clearing on Friday morning. I got there about lunchtime with Lee Jay Graves and Chris Vreeland. We cleaned and organized the cabin (it was still pretty messy from the group that was there the previous weekend). Don Arburn and Ann Scott arrived shortly afterwards, and pitched in with the cleaning and organizing. Ann spent about an hour cleaning the disgusting mess left in the shower and bathroom sink. Matt Zaldivar arrived about that time.

Meanwhile, the rest of the crew migrated over to the little blowhole along the road to the campsites. Lee Jay found this years ago, and a recent resistivity study by George Veni showed a sizeable void below. We all came early to start the dig, armed with numerous implements of destruction. And so we began, with Don shooting a time lapse video until it got too dark out to see. The rest of the group eventually straggled in, mostly around 10pm. The usual b.s. ensued, beers were consumed, tall tales told, and everyone eventually dropped off to sleep.

In the morning, I crawled out of bed around 7am to start breakfast: a cheesy ham and potato casserole, fruit, yogurt, coffee, and tea. Eventually everyone else awoke, survey teams formed, gear got organized, survey leads and previous notes were gathered, and waivers signed. We held a brief team meeting to talk about our objectives, our survey standards, and cave entrance/exit protocols. All the surveyors then hiked to the cave, where we had ropes rigged at all three anchor points. But we also had a surface team: Ediger, Graves, Scott, Arburn, Maya Liu (sidelined with an injured foot), Sue Schindel, and Keenan Smith (Bryce's dad, who was heading over to Devils River SNA for some fly fishing). Most of the surface folks were either going to work on the new dig or another by the Punkin/ Deep road, and agreed to dinner ready for us by 7:30.

David Ochel led Matt Zappitello and visiting Canadian Chris ABatgirl@ Omura back to Superstition Maze to knock off more leads near the connection with Davey Jones' Locker. They were able to set 12 stations for 31.1m of new survey, an average of 2.59m per shot. They also took care of rigging and derigging the cave, which we all greatly appreciate. Geary Schindel led his daughter Aspen and Andrea Croskrey over to the West Maze to work on the numerous leads there. The surveyed 34.22m in 12 shots, averaging 2.85m per shot. That area is a crazy boneyard, with leads everywhere.

I eventually lead my team and Dale Barnard's team back through Superstition to the Woost Woom area, where we were thwarted by hibernating bats. Altogether we saw three different species, including a half dozen Townsends big eared bats, a hundred or so tri colored bats, and well over a thousand cave myotis. We left that area, still trying to find the tie in stations to begin Dale's survey. We eventually found him some leads to survey, and his team, including Chris Vreeland, R.D. Milhollin, and Matt Zaldivar, set 8 stations for 17.81m (2.23m per shot). But they were the only team that didn't leave any unfinished leads where they surveyed.

My team changed objectives because of the bats, and headed through Area 51 to a lead we left a year ago. With the help of Yazmin Avila, Ron Rutherford, and Galen Falgout, we surveyed 22 stations for 58.62m, averaging 2.66m per shot. Galen hammered through a particularly gnarly spot, allowing us to connect back to the Western

Maze. We made a second connection to the WM survey, and also to the AFT survey that we were trying to find earlier with Dale. Oh well. We exited through the Western Maze thanks to Galen's intimate knowledge of that area, and also left many great leads for the next trip.

Will Quast took Kris Peña, Anna Klis, and Bryce Smith down to the deepest part of the cave, Fifty Fathoms. After resurveying a couple of shots near the Ninth Layer of the Abyss, they extended the survey a few more shots downward, thereby deepening the cave. They surveyed 20.49m in seven shots (2.93m per shot), of which only 13.8m was new footage. But the cave is now over 3m deeper!

We all got back to the fieldhouse before dark, showered, and entered our survey data in the laptop before having a scrumptious meal of homemade cream of carrot soup, grilled bratwursts with rolls and fixins', spinach salad with hot bacon dressing, and a dessert of pineapple upside down cake. We tried to drink our remaining beers before heading to bed, but failed.

The next morning, I again awoke way too early so that I could start breakfast for everyone, this time quiches with sweet rolls and melons. The entire group pitched in and did a marvelous job packing their gear and cleaning the cabin. We were on the road home shortly after 10am. Our totals for the weekend were 162.24m surveyed, of which 150.25m counts toward the length of the cave. This now brings the total length of the cave to 4553.46m, still a few hundred meters shy of nearby Deep Cave, but getting closer to being back in the top 10 longest Texas caves list again. The new depth of the cave is 64.79m, edging out Mesa de Anguila Sinkhole to take the #28 spot on the Deep Cave List. We hope to return to this fine cave sometime in the early summer to try to knock of even more of those pesky leads!

Expedition 22: 27 February to 1 March 2015

Has it really been a year since the last trip? Where does the time go? Too many other caving projects getting in the way, I suppose. But that's a good thing, right?

This is the trip that almost wasn't. I left Austin about 2:00pm with Lee Jay Graves and Chris Vreeland. The weather forecast called for freezing rain. We had

no real problems on the drive out, except for having to stop about six times to knock the ice build-up off the windshield wipers. It turned out that we were just ahead of worsening conditions. Don Arburn was already there, and had things turned on for us. We settled in, did some very minor cabin cleaning and organizing (thanks to the previous group for the excellent job cleaning!), and grabbed some beers. We watched a movie on the big screen, and started worrying about everyone else. Matt Zappitello and David Ochel texted and said the roads were too bad and that they were turning around somewhere near Fredericksburg. Soon Galen Falgout called and said that his vehicle (with Ellie Falgout, Guin McDaid, Lydia Hernandez, and Dale Barnard) was also stopping for the night in Fredericksburg. Matt Turner eventually called, saying he got turned around in Fredericksburg also (a tractor-trailer jackknifed on the icy road and shut down I-10 for three hours). But Matt was going to push on, detouring to San Antonio and coming in on US 90. That was good news, because Matt bought all the food for the weekend, and offered to cook. We hadn't heard anything from the Houston and San Antonio contingents, or our fellow Austinites. We discussed contingency plans, had a few more beers, and turned in for the night.

When we woke up the next morning, we were in no hurry to get started, since hardly anyone was there. We found out that Matt eventually made it in, but surprisingly, so did Wes Rosenstein's vehicle. He brought Danielle Blew from Houston and picked up Jill Orr and Chris Lafferty on their way through San Antonio. And Lydia Hernandez and Fernando Hernandez (no relation) somehow made it in as well. Suddenly, we had survey teams again! I called Matt Zapp around 9:30am, and woke him up. He and David were still sleeping in a Fredericksburg motel. It seems like Galen's group, when trying to find a hotel, ended up renting an entire house instead. They called Zapp and David, who joined them at the house. The combined group then stayed up drinking until about 3am. They were still continuing to Carta Valley, but wouldn't arrive until sometime after lunch. I called Galen, discussed their options, split our existing personnel into two teams, and left survey gear, notes, and tools for those arriving later.

My team went back to the Area 51/Western Maze connection area to pick up some leads left from last year.

Wes and Danielle wanted to learn more survey skills, and we also took Lafferty because he is skinny, strong, and gullible. We got in 14 shots for 34.93m of new survey, an average of 2.495m per shot. We connected back to previously-surveyed passage after some hammering of a constriction or two, and also connected to Chris Vreeland's survey, which was somewhat above and parallel to ours. Afterwards, I took the team on the discovery route through Area 51, Superstition Maze, and back to the Entrance Room. We had a blast, and were the last out of the cave.

Vreeland led the other team, since most of my sketchers were delayed and hung over from the ice storm. He did a great job, following up on a lead from about 10 years ago. He took Lydia and Fernando. Turner and Arburn were nursing shoulder injuries, and decided (wisely) not to cave. Lee Jay decided not to go into the cave with the rest of us. Vreeland's team came back with the only other survey of the trip, 44.18m in 20 shots, 2.209m per shot on average. They left their survey in a large room that is in a nice blank spot on the map.

A few other teams eventually made it into the cave. Lee Jay and Guin showed up where we were surveying, but they were just bopping in and out. Zapp, David, and Dale also made it close to where we were, but couldn't find any of the tie-in stations for the leads they were trying to finish, so they brought back no data. Overall, we only added 79.11m to the cave's length this trip, for a new cave length of 4632.57m.

After reuniting back at the cabin, we caught up on everyone's adventures on the way there. Those of us that caved grabbed hot showers. Turner made a delicious meal of spaghetti and meatballs, garden salad, and garlic bread. I entered the survey data into WALLS, and hooked the laptop to the projector so everyone could see the day's progress. Afterwards we watched another movie and valiantly tried to finish the remaining beers. And we would have too, if the Fredericksburg crew weren't already sated from the previous night.

We didn't get a lot of footage this trip, but everybody made it there safely, and that was more important. Punkin survey expeditions are always fun, and always adventurous. The cave still has lots of secrets to reveal, so there will definitely be future trips. I just hope it doesn't take a whole year until the next one.

MY FIRST WILD CAVE

THE HONEY CREEK CAVE TANK HAUL

by Leia L. Hill

I'm a weather freak, daughter, full-time-undergraduate student, and most recently, a caver. That's right—I'm a caver, a.k.a., a "weirdo" to the outside community, and one who spends her free time on weekends underground in dark and unknown subterranean worlds, only meant for the not weak at heart. My admiration for caving all started in October 2014 when I decided to go on the Hidden Passages Adventure Tour at Natural Bridge Caverns in San Antonio, Texas. This cave tour is only offered on weekends during the year and is meant for those people who either seek adventure or want to get rid of their fear of being in the dirty unknown. Well, I was one of those people, the one who wanted to seek adventure and see the unknown, and let's just say, I found adventure and a new hobby!

After finishing the four-hour adventure tour at Natural Bridge Caverns, I came back home exhausted and exclaimed to my parents what fun I had. I looked online to see what caving groups existed in the local area, and I stumbled across the "Bexar Grotto" caving community. I don't remember the exact date in November, but during that month, I went to my first Bexar Grotto meeting one Monday night. After attending several meetings, I was then informed one evening at a meeting in December about a "Honey Creek Cave Tank Haul" coming up on January 24, 2015. The objective of this tank haul was for the cavers to carry the air tanks to the sump so that the next day the cave divers could use them in aid of exploring more passage underwater two and a half miles in. Many Grotto



members told me from the beginning this was going to be a very difficult and long cave trip for a beginner caver, but I told them reluctantly that I would prepare for it and do it!

Many weeks later, January 24 arrived and I was beyond anxious and excited. I had been anticipating this very day for weeks, and I couldn't wait to see what new adventures I would endure that day. My caving friend Chris Lafferty and I drove up together that Saturday morning around 8 a.m., and we then met up at the surface of the cave with seventy or more other cavers who were doing the tank haul as well. Because Chris and I were

caving friends and kind of around the same age, we decided that we would be caving buddies in Honey Creek. By this, I mean we buddied up so my first time in Honey Creek Cave would be a safe and more guided one. It was nippy and sunny that morning and the only thoughts going through my head at that time of arrival were, "I've got to set up my tent and then get breakfast real quick. After that, I have to hustle and put on that stupid wetsuit that I can hardly zip up in the first place. Oh my gosh, Leia, why did I ever agree to all this?!"

After setting up my tent and grabbing some breakfast, which really consisted of me stuffing raisin bread in my mouth, I quickly struggled to put on my wetsuit and caving boots and rushed over to the annual "powwow" hosted by cave diver, Jean Krejca.

After the powwow, about 9:30 a.m., Chris and I were signaled to join the long line of people waiting to be lowered into the 150 foot man-made well shaft into Honey Creek Cave. As we were waiting in line, I fixed my helmet and distinctly remembered the first time I was lowered down a well shaft at Natural Bridge Caverns for the Adventure Tour. It brought back many memories of that well shaft, which was only 22 inches in diameter, and 10 feet deeper than the one I was about to repel into. I was shivering cold, even in the 3mm neoprene wetsuit literally chocking my entire body. Chris and I went over all the supplies we had, including my rescue inhaler for asthma, food, water, and the air tank for the haul. He was the prepared one, not me. I didn't have squat; he brought everything, including an extra helmet, headlamp, and lunch for me. I thanked him several times for everything he did for me and for the ride up to the cave. As soon as I knew it, Chris and I were up next to be lowered into the well shaft and this was finally it—no turning back whatsoever. It was time for me to go underground and journey along in the cave system for two and a half miles.

When I was about a 140 feet down the well shaft, I suddenly heard a roaring noise that sounded like a massive torrent river flowing over a small dam right under my feet. I looked down, and I saw this water flowing roughly and fast, and the first thing I thought was, "What the heck is this? This isn't a creek, it's a death trap!"

As Chris and I reached the bottom of the well shaft at 9:45 a.m., we stepped into the creek of rushing water, which came up past our ankles, and unhooked ourselves from the rope and our harnesses. I took one last look up and saw the last of any natural light I would see for hours. I silently said goodbye to the sunlight and moved away to the next room where the water was deeper, and the only

light that could be seen was from our headlamps.

The few caves I had been in before with my Grotto consisted of rocks, slopes, some mud, and dirt and maybe a little water, but nothing like this Honey Creek Cave full of water up to the chest! We walked in water for a while, then swam, then "salamandered", and then walked again. It wasn't a consistent pattern of movement, as I said, we sometimes swam, crawled, "salamandered", and walked in water for hours. So as the long day went by. Chris and I were about a mile into the cave, and then all of the sudden, the bottom soles of his caving boots started falling apart! It was kind of a relief because he had to stop quit often to fix his shoes and it gave me a chance to rest and grab a Gatorade. (I'm not the most physically in-shape person out there and my asthma makes it worse, so all the rest I can receive, the better.) I should also say that when Chris attempted to "fix" his boots, I meant he sewed them with a Speedy Stitcher sewing awl tool! I'd never seen anyone pull a sewing awl out before and start stitching away-it was so cool, but kind of strange. I would say about thirty minutes or so after Chris attempted to temporarily "fix" his beat up old boots, we continued on in the never-ending cave passages, or so it seemed, never-ending cave passages. Most of this cave was somewhat highly decorated with formations, and then some of the rooms in the cave were plain as could be with no formations at all.

Two of the worst parts about the cave were the "muddy layer landfill" and the "Bone Yard passage". The Bone Yard passage is a fairly long cave passage with sharp rocks, fossils, and back-aching crawlways. Now, on the other hand, the "muddy layer landfill" passage was a different story. Literally about a quarter of a mile of this one passage was covered in layers and layers of brown mud. It was so thick that at one point my left shoe got stuck in the mud, and I had to have two or three other people help me pull my shoe out! It was so funny because all of us were laughing as we struggled to pull out—what was supposed to be a lightweight caving boot—now a muddy, heavy glob! It was so disgusting but it gave me something to laugh hard about afterwards.

About five hours into the cave, Chris and I were almost to the sump, probably about thirty minutes or so away, when something tragic happened. I didn't expect it to happen nor did I want it to happen, but it did—I was walking and somewhat treading along the shallow water passage when I tripped over a rimstone dam and hit my left ankle. At that moment, pain rushed everywhere, and I slowly went out of it. It felt like I broke my ankle, and I didn't know what to do. I couldn't

move it very well, and I could barely stand. I called to Chris, who was a little ahead of me, and told him to please stop. He stopped, but he didn't come over to help me right away. I'm not sure what he was doing or thinking, but I thought maybe he thought that whatever it was, I would be able to get up and keep going. I sat down slowly and cuddled up to my ankle and held it as it hurt beyond what words could describe. I wanted to cry so badly, but I didn't want to cause drama or look weak, because I was and I'm a brave and strong girl.

Suddenly, two young men came back from the sump and saw me sitting in intense pain and asked what was wrong. I said I had tripped and fallen and hurt my leg very badly. I was so dehydrated and so tired that I started seeing things and was slow to answer questions. One of the nice young men said to me, "I think you're disoriented. I don't think you're ok. You need some help!" I told him, "I'm fine, I promise. My ankle hurts and I hope I didn't break it." The nice young man gave me some water and told me to drink. After I drank some of his nasty tasting mineral water. I was able to somewhat cognitively reason and process information again. Chris or someone came over and looked at my leg and we saw a deep cut or bruise on my left leg. I wanted to continue on and head towards the sump, but Chris and the other nice guys advised me its best I turn around and head towards the entrance, five hours away. I was disappointed, but I figured it would be best considering it would probably be around 9 or 10 p.m. by the time we got back to the surface. Before we departed, Chris gave his air tank to "the sweepers", the last group of cavers in the cave, so they could deliver it to the sump.

As Chris and I journeyed back towards the entrance, I lead the way so I could go as slow as I wanted. Because my ankle hurt, that was pretty much the only thing I thought about.

About four and a half hours later, I had about had it. I was super tired, hungry, cold, wet, muddy, and sore. I kept asking Chris if we were almost to the well shaft and he kept saying almost. I was impressed with all the formations again and I kept thinking this cave is just long and huge. I kept convincing myself that this was all worth it and the next day I would get my favorite food from Olive Garden. At the time, going back and almost to the

well shaft, I realized I had swam, walked, crawled, and salamandered for about five miles in all! That was the most I've ever done at one time and in one day! About thirty minutes later, Chris and I finally heard what we had been waiting for hours for—the torrent water over the small dam at the bottom of the well shaft! I was beyond relieved and excited that my torture from this cruel, yet beautiful cave was over! Chris and I stepped out of the deep water and we got out our harnesses and put them on.

Chris swung the rope in the well shaft so that the people on the surface could signal the tractor to pull us up. It took about three tries before the rope moved up, and we both attached ourselves on the rope and were taken up the well shaft to the cold, dark outside world. As we were raised up the well shaft I looked over to my left and I noticed a tall void in the wall—it was a small. upper room of Honey Creek Cave and it was beautiful. I wish we could have explored that area, but we were on a rope hanging on for our lives, and it would be pretty hard to shout up to the people on top of the surface. Maybe next year I can convince someone to let me look in that void that was next to the well shaft. About a minute later, we "shot" into the sky and I could see land and a campfire and all the people who had made it out of the cave hours before Chris and I did. I was soaking wet, and I was cold as could be when I rose into the air from out of the humid, semi-warm well shaft.

When I reached the surface and was detached from the harness and rope, I quickly ran to my tent and got dressed before any chance of hypothermia could set in. The next day, I was beyond sore and exhausted. I had never been that sore or tired before, and I never wanted to experience those feelings again. I would say this has been the best thing that's ever happened to me because I survived ten hours in a cave—ten hours! This caving trip taught me a sense of appreciation of the Glen-Rose Aquifer and the subterranean worlds below me. I still have the scar on my left leg, and every time people see it or ask about it, I tell them, "Honey Creek Cave was a cruel and unforgiving cave; yet it awed me with ravishing formations and an experience of a life time I'll never forget."

GHG IN O-9 WELL

by Peter Druschke

On Friday afternoon, August 1. Greater Houston Grotto members Peter Druschke, Wes Rosenstein (trip leader), Chris Lafferty (co-leader), Ray Hertel, Santiago "Scott" Ycoco Cogburn, Stuart Ward, Holly Weinstock, Nicole Garcia, and Simon Belmont gathered at Wes Rosenstein's house prepared to make the seven hour drive our evening's destination. Our goal for the weekend would be a successful round-trip exploration through the lower reaches of 0-9 Well. Several factors made the trip a bit daunting: the cave is located about 100 miles from middle of nowhere, west-central Texas, the entrance is a 125 foot rappel down an active well shaft exiting into stream passage requiring a wet-suit, and a successful exploration of the cave would require two more vertical rappels with rebelays totaling more than 100 feet of vertical, at least two additional highangle rappels and a section of rope traverse above a 70 foot waterfall.

Despite an early afternoon departure, traffic was heavy on I-10, and we finally rolled in to San Antonio to pick up Chris Lafferty (Bexar Grotto) later than we hoped. We pushed on to Kerrville and dined in elegant fashion at the local Cracker Barrel. Wes tried to get the waitress to bring him some vegetable oil from the kitchen, weirding out the staff in the process, which is when we decided to continue on our way. Our destination for the night was the X-Bar Guest Ranch

located about 30 minutes northwest of Sonora, Texas. It was after 10 pm by the time we rolled into the X-Bar; we had blown by the entrance the first time and had to backtrack. The X-Bar was completely deserted, and we had our run of the place, which suited us fine. We never saw anyone during our two nights there; reservations and payment were handled by Scott ahead of time and the owners left us keys and some instructions on where to find things. The X-Bar is set up as a communal lodge with kitchen (stocked with utensils and even spare cooking oil), dining area with covered porch and patios, and several simple cabins outfitted each with a queen bed and a set of bunks. There is even a pool and fire pit area for the cooler months. We enjoyed the views of the night sky and the Perseids: to our surprise the night air was cool, dry and comfortable. The cabins were much nicer than camping out in the gnat-ridden scrub brush. However, the window trimmings made of old jeanshorts was an odd touch and made sharing a bed with Chris that much weirder. Our cabin was awoken by 6 am when Santiago decided he needed to take a shower to wake up, and then proceeded to leave the door to the bathroom open afterward to air it out. With my spot on the bed 2 feet from the bathroom door and a nightlight from the bathroom shining in my face, I decided to get up too. We all slowly gathered to enjoy the "continental

breakfast" comprised of prepackaged danishes and muffins provided by the ranch, along with complementary coffee and some Jimmy Dean sausage biscuits left in the freezer. A sitting area under some oaks complete with a small fountain made for a nice place to have breakfast and caffeinate.

Sometime after 9 am we loaded up, topped our coolers off from the ice machine, and set off for 0-9 Well. It's located approximately 1½ hours north/northwest of X-Bar Ranch near Eldorado. The countryside in this part of the Edwards Plateau is low-rolling scrub cattle country, with lots of oil/ gas fields and a scattering of ranches and cotton-fields. The last few miles to 0-9 Well are off the pavement, where deep ruts created by June rains made for slower going. Finally, we reached the turn off onto a twotrack leading to the well. Mesquite brush crowd around the old windmill, which is currently in operation. Cattle watched us with blank expressions from under the mesquite as our twocar caravan rolled up and disgorged cavers, gear, ropes, coolers, and wetsuits. Soon the land manager drove up to see what we were doing (TCMA holds a conservation easement on the property), and he was kind enough to switch off the well pump to cut down on noise while in the cave. Wes provided waiver forms for TCMA of the sign-your-life-away sort that are always a tiny bit unnerving. Wes and Chris quickly rigged up the



rope, and by the time we were ready to start dropping into the entrance, it was pushing noon, and the August sun was beating down on a bunch of wetsuited cavers. My wetsuit was getting soaked with sweat before even getting into the cave.

The entrance drop starts off as a concrete shaft that quickly becomes a limestone chimney. Approximately 30 feet down, the shaft constricts and it is necessary to use a redirect, or to squeeze you around the well pipe while on rope to continue the rappel. We chose to do the latter, which seemed a bit challenging at first but was easy enough once you passed behind the pipe. The rest of the drop is a straight-forward free hang alongside the well pipe. I followed the pipe down like a giant fire pole. Once on the bottom, I met Ray Hertel who was relaxing a short distance from the entrance drop while the others were heading downstream single file. We would make up the rearguard with Holly and Scott just ahead of us. The main passage of 0-9 Well is a stream channel about 4-6 feet wide in most places but quite tall, 20 feet and higher. Just below the entrance drop, a thin flow of water on the floor of the passage

quickly deepens downstream, while the upstream passage is apparently dry. We did not explore up passage on this trip; the passages are apparently very muddy and lead to an upstream sump. Downstream the passage is quickly dominated by a series of large rimstone pools, each one ranging from knee deep to chest deep 66° water. The cave follows a single trunk stream passage with no discernable side passages, and exploring consists of wading or swimming through the pools while still in full vertical gear, clambering over the rimstone dams and splashing down into the next pool which form a series of giant wet stair steps. The pools are quite lovely, and I paused at a spot where a shelf of limestone created a small natural bridge across the passage. Just ahead we encountered the first challenge, the traverse.

The traverse is a series of bolts set about 8 feet about the water level allowing for cavers to climb up to a ledge directly above the first serious downstream obstacle, a 70 foot drop over a waterfall that opens to a massive chamber. The traverse was not difficult, but the last section spans a 4 foot gap directly above the waterfall and is very exposed

with somewhat slippery purchase on the upstream side. As I ducked underneath the traverse rope to look for the best way to bridge the span without taking a spill above a 70 foot drop, the rope knocked my Petzl Duo lamp off my helmet and into the rimstone pool directly above the waterfall. It took me a minute to retrieve it, and then navigate myself across the drop to a ledge providing a great spot to rig up my cave rack.

The drop is a gorgeous rappel down past the waterfall and 70 feet of reddish-brown to ambercolored flowstone curtain ending in a plunge pool and massive chamber below. This chamber is easily over 100 feet in height from plunge pool to ceiling, although otherwise not very decorated. I found some breakdown blocks alongside the plunge pool that were teeming with hundreds of cave crickets.

The downstream passage flows through some big breakdown to exit this chamber, then continues along a passage that is similar to the one above the falls. Here, however, the pools were deeper, chest deep and sometimes deeper, and at one point an impressive 8 foot high rimstone dam requires





a hand line to safely pass.

Around a bend the next major downstream obstacle was a second waterfall, smaller than the first at about 40 feet, and entering a large chamber about 50 feet tall and decorated with a few nice stalactites. Given the location of the drop relative to the waterfall, a rebelay has been rigged to a series of bolts so that cavers can descend and ascend the falls free of the flow of water. While the rebelay was a bit daunting to those of us not too used to having to pass knots and anchors, it proved to be a fairly straightforward undertaking after having watched the first five cavers tackles the problem. I received a nice cave souvenir in the form of a nasty bruise across my shin when I used it to prop myself up on the rope loop to unclip my cow's tail. This second drop was a miniature version of the first waterfall, lovely flowstone and tumbling water finishing up in a surprisingly large and deep plunge pool.

The final obstacle lay just beyond the second waterfall room, a series of high-angle to vertical flowstone curtains dropping

approximately 40 feet in two tiers separated by a broad ledge into a massive chamber with ceilings soaring above 150 feet in height. This was tackled with two short rappels, and we were at the end of our journey, as a short distance below the flowstone cascade the stream winds its way around a massive pile of silt and clay, and terminates at a sump. We stopped here to rest, eat, snap some pictures, and enjoy the views of the flowstone formations and soaring walls. At some point I asked Stuart for the time and was amazed that it was 4:30. It had taken us over four hours to reach this point although it certainly didn't feel that long. With the realization that it would be late by the time we all exited the cave, we started the journey back to the entrance drop. The first ascent over the flowstone tiers was one of the toughest, because the high-angle nature of the face prevented the use of good frogging techniques. Instead it was a lot of arm pulls.

Back at the first waterfall Wes was quick to be the first to scamper up. Next was Nicole. As she was about 3/3 of the way up Wes

asked her how she was doing. When she gave a positive response, Wes proceeded to send a wall of water over the falls by splashing it out of the rimstone pool above. Nicole disappeared as a massive torrent of water enveloped her and thundered down into the plunge pool. A cool, wet wind swept past those of us at the far end of the room more than 50 feet away. Nicole reappeared from the flow somewhat agitated and finished the rest of the ascent in record time. Next was Stuart, and then Holly, and for each successive climber the refrain of "Make it rain!" brought a new torrent of water, and for a moment the climber would disappear entirely beneath the flood before reappearing with some colorful language. For those of us at the back of the pack, we openly hoped that the pranksters would leave to continue up the passage to the big falls. They did, but fortunately when Santiago made it to the top he took over to make sure no one would miss out on the "Make it rain" experience. Just before ascending, I noticed that my foot-loop was suddenly missing. I looked around but it was gone. I



surmised that I had dropped it when readjusting my frog while watching the water spectacle, and it must have drifted away on the increased current. Luckily Scott had a spare to loan me.

The trip back up through the rimstone dams was fairly taxing; it was a lot more work clambering up than down the dams and it often took a bit of experimenting on just where to find a foothold. The big falls, of course, was a nice little ascent. About 2/3 of the way up my light came loose from my helmet (again) and fell all the way down to the plunge pool below. Ray was kind enough to retrieve it for me, and I made a mental note to order some headlight helmet clips along with a replacement foot loop.

I was beginning to think there were some gremlins in this cave since I have never had a light come loose (or lose a foot loop for that matter), let alone twice on the same waterfall. The ledge near the top of the falls made it a bit easier to change over to the rope traverse, which also proved to be easier in the reverse direction. The last of us arrived at the entrance climb to find that Wes was already up top, and Nicole was just

getting started on Frog. We rested and chatted as we waited for our respective turns to ascend the 125 feet back to the surface. Knowing I wouldn't be breaking any speed records, I waited until second to last to begin my ascent. The restriction in the upper part of the climb was very interesting; a little flailing helped me make it past the pipe and into the home stretch. Luckily the pipe flexes when you squeeze around it. The sun was just setting as I dragged my carcass clear of the well; it was now nearly 9 pm.

As we packed up, the sun went down, and the gnats came out in great profusion. They swarmed your face, landed in your ear, and swarmed my dome lights in the hundreds. I was thankful not to be camping amongst their multitude and trying to choke down dinner with gnats in my mouth. Once back to the open road, we rolled down all the windows and opened the moon-roof to rid ourselves of the gnats. Some had found their way into the dashboard and were buzzing around my odometer display. The cool night air felt great, and we watched for jackrabbits on the

drive back to the X-Bar with the night sky lit by the eerie glow of the natural gas flares in the distance.

Back at the X-Bar, Ray pulled out the fixings for a caver feast. We all lent a hand in getting the meal ready although it was after 11 pm by the time we ate. We toasted a successful cave trip with some of Scott's whiskey. I dragged myself to bed around 1 am, and was probably one of the first party poopers. By morning I woke up dehydrated and hungry at 7 am. I pulled a Santiago and showered up, but there was absolutely no movement from anyone else in the cabin. I made myself coffee and eggs and enjoyed them outside in the shade, and watched quite a few birds come by to drink from the fountain.

By 9 am there was still no sign of life at the X-Bar. I went back to my cabin to wake Scott, Stuart, and Chris, and they were already starting to stir. I gave the other cabin some knocks in the hope of a pre-noon departure from the X-Bar. Wes woke grumpy and determined to prepare a pancake feast for everyone. The plan had been to hit Caverns of Sonora on the return trip but hopes began to fade around 11 am when we were still cleaning up and packing up, and asses were dragging understandably after the long day we had. We were out shortly before noon and back on the road, stopping in San Antonio by 3 pm to drop Chris off and grab some barbeque. With heavy traffic on approach to Houston, we finally rolled back to Wes's house by about 7 pm, tired but in good spirits.

It was an awesome trip and special thanks to Wes and Chris for making it happen!

GOVERNMENT CANYON

TSA KARST PROJECT UPDATE

by Marvin Miller



January 3-4, 2015 Participants: Niki Lake, Marvin Miller, Donny Roland, Joe Schaertl, Richard Silver

On Saturday, Donny, Joe, Marvin, and Niki surveyed Solitude Pit. The trails were closed due to the rain the day before so this was a natural objective that we could hike to from the parking area without using established trails. Joe and Donny descended the pit while Niki and Marvin set four stations to define the top of the cave. Just inside the entrance a crawl headed northeast 4.5 meters before turning into little holes in the bedrock. The crawl was muddy due to all the rain. The only other passage from the entrance area was the pit. While Niki geared up to descend, Marvin measured it with Donny's help. It taped out at 11.31 meters (37.1 feet). Donny announced there was a javelina skeleton at the bottom.

The pit is one of the nicer ones discovered so far at Government Canyon. The highlight is a large ledge halfway down that is ringed by palisades of closely spaced drip pits with the sharp-edged remnants of undissolved limestone rising between.

When Niki got to the bottom, she managed to squeeze into the well-developed drain passage in the wall of the pit. The drain was blowing a good stream of air. The passage opened up a little after the squeeze, but she had to continue forward about 4 or 5 meters more before she found a little room to turn around in. In this room she noted that it looked like water might drain down through the floor, and at the end of the room the air came out of a hole that was too small even for her.

On Sunday, Marvin Miller and Richard Silver worked on opening up Feature FC-075. This feature is a solutioned hole in bedrock that looks like it might lead into passage. They cleared all the loose rock and started with an opening approximately 15 centimeters wide by 30 centimeters long. They removed a lip of rock at the entrance and elongated it a bit further, but when they were done it was still too tight to get into. The soil floor of the feature was only 0.8 meters down so they could stand in it and move their feet around. Richard was able to stick his tape measure in a good distance, and Marvin put a camera down on the floor and took a blind picture. In the picture, it looks like a skinny person might be able to get down the passage a little ways to see if it opens up any, but some digging would still be required. No airflow was noted.

February 7-8, 2015 Participants: Megan Gaitan, Leia Hill, Marvin Miller, Joe Schaertl, Richard Silver, Casey Tucker

On Saturday, Joe led Megan, Leia, and Casey to Lilyhammer Cave, a recent find in the far north of the State Natural Area. The first little room had been entered when the cave was discovered, but a constriction prevented further exploration into visible passage. After an hour and fifteen minutes of driving and hiking to the cave,

Joe made quick work of the first constriction with a few hammer blows and proceeded into the next small room, 2 meters long by 1 meter wide and tall. From there, the passage dropped slightly into another small room, 2 meters wide, long, and tall. This room had a nicely decorated ceiling. Off this room, two parallel crawls went for 3 to 4 meters where they met up again at another constriction. The team worked at this constriction with hammer and chisel, and when they finished for the day, they were able to look into another small room with a large formation on the floor, though more needs to be done to actually gain access. Five bats were seen in the cave, along with a frog.

On Sunday Marvin Miller led Richard Silver and Casey Tucker to Feature 20-58. This feature had been dug open to closely spaced bedrock walls that dropped approximately 3 meters to a floor visible below. The walls were only 20 centimeters apart-too close considering the vertical nature of the hole. However, it could be seen that the wall on one side opened up into a ceiling only about a meter below the surface. On previous visits there had been a good stream of air coming from the hole but on Sunday no air movement was noticed until later in the afternoon. The team used micro-blasting techniques to remove several centimeters of rock on the short wall and by mid-afternoon had broken through to the void below. They rigged a cable ladder, and Casey was the first one in. High hopes were dashed when he reported that the space was only big enough for one person and that only a small hole continued down and out of sight. Casey struggled out of the pit, and Richard climbed down to see for himself. Richard is taller than Casey, and he struggled a lot more coming out, pretty much filling up the hole they had made. Marvin and Casey re-rigged the cable ladder and helped him out by pulling on his outstretched arms.

After this the team went to nearby Feature FC-025, which is a small vertical cave. The cave is free-climbable with an entrance drop of just over 2 meters and a second drop to the bottom of just over 2 meters. The team surveyed the cave, and Marvin took photos of the bones at the bottom of the cave for the TPWD archeologist. The bottom of this cave is a good dig lead, as several small holes around the periphery of the soil and rock floor drop to another floor about a half meter below. Some airflow is also felt in the cave.







Left: Solitude Pit drip pits; Above, top down: Richard (in the pit) and Casey working on Feature 20-58, Micro-blasting Feature 20-58; Richard in the opened entrance of Feature 20-58.



HUNTSVILLE AND TUMBLING ROCK CAVE

by Walt Olenick

Rae and I arrived at the NSS Convention campground after travelling through Mississippi on the Natchez Trace Parkway—a bucolic route that retains several notable preserved Woodland era cultural mounds as well as small segments of the original pioneer trail itself.

After a few days of re-engaging with old friends, attending fascinating sessions, and observing the action at the vertical contest, Cave Sim, Squeeze Box, etc., we decided it was time to go caving. Huntsville and the entire TAG area abound with vertical caves of all descriptions, and most of the folks around us were planning to tackle those.

Having done Ellison's Cave (my personal favorite for many years) with Marion O. Smith and Donald G. Davis several conventions ago, I opted this time for nearby, horizontal, walking, pretty, clean, non-WNS-restricted, and extensive. I discussed my desires with longtime friend Gerald Moni, who suggested Tumbling

Rock Cave about an hour northeast of camp.

We headed out with new caving friends Chris, Robert and Jonathan Vocke of Maryland, plus a woman from Quebec whose name escapes me now. Soon we were unlocking the gate to our day's adventure. The 2005 Huntsville convention guidebook describes the cave as 6+ miles, with a small stream, considerable saltpeter mining evidence, and some pits and domes (see map).

I was a little unsure how my new LED light would do in its first cave. While packing to leave Austin, I discovered that my old light had returned from our recent Galapagos Islands trip irreparably smashed. There was just time enough to head to Home Depot and pick up a lamp for under \$20 to mount on my helmet before departing. The lamp did just fine to meet the demands of a cave that proved pleasantly demanding but not a killer. We walked around, clambering over giant breakdown,







crisscrossing little streams, stoop walking in places, and generally enjoying the varied sights as the beautiful cave revealed itself to us. Its attractions ranged from giant broken travertine blocks fantastically twisted and looking like melted bedding plane, to striking rimstone dams in the meandering stream, and to overhead formation alcoves, one with unexpectedly white footlong soda straws hanging from a caramel colored roof. A growth on the walls of one room shimmered with the appearance of hammered, layered silver; in another spot, the massive scalloped ceiling most caught the eye.

After some four hours of picture taking

(accompanied by the unfortunate demise of Rae's camera) and probably not over a mile of cave, my light was still working perfectly. We took leave of our companions to head back for dinner, another night of music and hot-tubbing, and the not-to-be-missed slide show.

Tumbling Rock Cave is definitely worth another, longer visit, and the next time we're in the area we intend to do just that.

UPPER LEFTCLOCKWISE: Twisted Travertine, Rimstone Dams, Soda Straws, Walt Olenick in Tumbling Rock Cave

A FANTASTIC TIME IN ELLISON'S CAVE

by Chris Lafferty

During the 2014 NSS Convention in Huntsville, I had the opportunity to visit Ellison's Cave. With the guidance of Aaron Polsky, a friend from Scottsboro, Alabama, seven cavers headed out to Pigeon Mountain Wednesday night of Convention with the intention of entering the cave early Thursday morning to beat any other groups to a part of the cave called the Attic. The Attic was the perfect spot to rig a rope to bolts in a shelf of limestone on the ceiling and have an unobstructed drop into Fastastic Pit, the deepest known pit in the lower 48 states at 586 feet.

In the group were Tom Rogers, Lydia Hernandez, Galen Falgout, Ellie Watson, Evan Strickland, Aaron Polsky, and myself. Unfortunately, Galen and Ellie did not enter the cave with us that morning, choosing instead to stay at the campsite and rest after Galen came down with an upset stomach. The rest of us drove to the Blue Hole, a spring at the base of Pigeon Mountain that serves as a resurgence for the cave, and geared up for a short but brutal hike up the mountain. We intended to bring radios to communicate between the top and bottom of Fantastic, as the waterfall in TAG Hall normally drowns out most communication. We forgot them on the drive out, but settled instead for an air horn we found inside Don Arburn's truck (aka Mobi).

We took turns hauling the ropes, with Evan taking the first shift carrying my previously unused 682 foot rope, purchased specifically for this cave. Aaron and Tom wore shorts on the hike up, something they probably later regretted after we plowed through a mile of dense poison ivy. We saw a number of small cave entrances and took several breaks along the way. During a long 20 minute break, Aaron mentioned he was not entirely sure we were on the right trail, and we might only be halfway to the entrance. We gritted our teeth and continued the climb, only to thankfully find the entrance we wanted some 30 feet from where we had taken the long break.

Entering the cave, we headed down a shallow walking stream passage until we got to the first drop

in the cave from the entrance we took. Climbing up some breakdown, we rigged a rope for a 125 foot drop called Warm Up Pit. The rig points for Warm Up Pit were an interesting site. There were a couple of bad bolts around the area, and the entire top of the drop had deep rope grooves cut into the limestone from the many cavers who had visited the cave previously. Some were more than an inch deep!

We dropped the pit and proceeded deeper into the cave. After a short 30 foot climb and a few traverses, we got our first surprise. Before entering the cave, Tom Rogers had stuck a foot loop for his ropewalker around the air horn to protect it and placed it inside his pack at the top. He chose to Texas up the short nuisance climb with his QAS and knee ascender instead of putting on the other foot loop. As Tom was clipping into a traverse line after the nuisance climb, his pack brushed the ceiling. Immediately, everyone got a surprise, especially Tom, as an air horn right behind his head sounded off in the cave. We got a few more blasts and a few more laughs from the horn a few more times before we reached the top of Fantastic Pit a short while later.

The Attic portion of Ellison's is small relative to the pit. There's a low crawling to get to it, and you can touch the ceiling while standing. Years of carbide lamp soot mark the ceiling in certain locations. Looking over the edge of Fantastic Pit, multiple bright lights could not reach the bottom. Instead, it was just a black pit that belled out after a ledge (known as the Balcony) 70–80 feet down. The pit was slightly misty from a waterfall below us. Apparently, the waterfall can be fairly large, but it was just a small shower the day we were in there. I fed Aaron the uncoiled rope and he rigged a traverse to a small bolt 10 feet behind the pit and then rigged to two bolts in a small shelf of rock over the pit.

Immediately after rigging the rope, Aaron brushed his hand past a Petzl NAO light he had loosely girth-

hitched to a biner on his harness. The light was knocked off, falling into the pit! It hit the Balcony on the way down, turning itself on. It then continued to fall down the pit in a spiral, illuminating the walls of the pit with a ~400 lumen spot. It was a really impressive sight. I recall having a short conversation as the light fell with Lydia, Tom, and Evan, who were not close enough to the pit to see it fall. Unfortunately for Aaron, the light went out with a crash at the bottom.

After seeing a brief exposure of the pit from the falling light, we began to drop the pit. Aaron went first to retrieve his lost light, enjoying the drop despite his

loss. He took it upon himself to bring a 24 inch rack into the cave along with a small micro-rack for Warm Up Pit. I followed after him. Fortunately, the rope was relatively clean, and I had no problem moving on four bars at the top after I swung out into the pit. It was a great drop with a great view. I was able to clearly see the walls of TAG Hall and Aaron's light (on his helmet, not the dropped one) at the bottom in the distance. A very small waterfall fell alongside me on the way, emerging from somewhere beneath the rig point.

Upon reaching the bottom,

Aaron rushed over with a smile on
his face. He was holding the light he dropped, now in
two pieces. The light appeared to have hit the rock
floor, and the battery separated from the light, breaking
a retaining clip on the plastic battery connector. He
said, "Look at this," and plugged the battery back into
the light. It turned out the light still worked! He placed
it on his helmet and used it the rest of the trip.

Tom and Evan dropped the pit afterwards. Lydia chose to stay at the top of the pit, not feeling up to a long climb back out of the cave. We quickly ate lunch, several foot long subway sandwiches we packed in, and went to explore some of the lower cave before returning to Lydia at the top of Fantastic.

We intended to explore the lower portions of the cave for just a short while, but unfortunately became lost for almost three hours when finding our way back.

The lower cave passage below TAG Hall is a jumble of breakdown that generally follows a stream. The water was no more than a foot or two deep where we explored, but Aaron mentioned it has been higher in the past. The cave hadn't taken a lot of water before our trip. Numerous cairns littered the bottom, and they didn't help in the least in finding the way back to the pit.

We eventually found the way back and began the climb out. Aaron preferred to climb solo with his ropewalker and took the lead. Evan followed with a fast 20 minute climb with his Frog System. Tom and I were last and climbed tandem. It went quickly with Aaron

> climbing solo with his ropewalker, Evan quickly frogging out, and Tom and me climbing tandem with my Mitchell System and his ropewalker.

While Tom and I were waiting at the bottom, we decided to try taking a short nap while we waited for a blast of an air horn to signal that Evan was off rope. I pulled out a polypropylene balaclava and Tom a ridiculous looking Mylar space blanket. We didn't have to wait long, though! Evan practically flew up the rope in 30 minutes. Lydia was waiting patiently at the top, having taking a nap and explored a little while we were gone. We set

off to Warm Up pit after hauling and coiling the rope.

We only had one more surprise on the way out as Aaron slipped while carrying the big rope across a traverse. Fortunately, he was clipped into a permanently rigged traverse line which kept him from sliding down a deep hole in the Attic's floor. The rest of the short distance to Warm Up Pit was without incident.

We all took turns climbing solo out Warm Up Pit. I was the last to climb and strapped the rope for Fantastic Pit and a spare 150 foot rope to a pulley. I hauled both ropes out with a simple 2:1 as I climbed and remained on rope to lift them up over the slight lip. We exited the cave as the sun was setting, and enjoyed the hike down the mountain much more than the initial climb.

Ellison's was a great cave, and we had great company on the trip. I'd be happy to return again someday.







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