

T.A.G. CAVES

A man wearing a white helmet with a headlamp, a dark hoodie, and orange pants is sitting on a rock in a cave. He is looking towards the camera. Above him, a large, yellowish, and white stalactite formation hangs from the ceiling. The cave walls are dark and rocky.

Sewanee Mountain Grotto
Volume 6 Issue 4

TAG Caver ~ Volume 6 Issue 4

Winter 2015

TAG Caver is the official newsletter of the Sewanee Mountain Grotto & is published on a quarterly basis. Sewanee Mountain Grotto is a non-profit internal organization of the National Speleological Society dedicated to the exploration, mapping and conservation of caves. If you are interested in joining the Sewanee Mountain Grotto we invite you to attend one of our monthly grotto meetings. Meetings are held the second Saturday of each month at various locations in the heart of TAG. A typical meeting starts with a potluck dinner at 6pm CST, followed by the meeting at 7pm. On occasion we also have special presentations following our meetings. Annual dues are \$10 per person and are due in January. Please email sewaneemountaingrotto@caves.org or one of our editors for more information on the location of our next meeting. You may also visit our website at:

<http://www.caves.org/grotto/sewaneemountaingrotto/>

2015 Sewanee Mtn Grotto Officers:

Chairperson: Jason Hardy

Vice Chair & Programs: Kristine Ebrey

Treasurer: Blaine Grindle

Secretary: Bambi Dunlap

Member at Large: Hali Steinman

Conservation Chair: MaureenHandler

Survey Chair: Jason Hardy

Webmaster: Tina O'Hailey

TAG Caver Editors:

Kelly Smallwood

Rowland7840@bellsouth.net

Jason Hardy

wmjhardy@yahoo.com

Email articles and photos for submissions to one of our editors. Content may include articles and/or photos from non members as well as other caving regions. Statements and opinions expressed in the TAG Caver do not necessarily reflect the policies or beliefs of the Sewanee Mountain Grotto or the NSS.



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Front & Back Covers

Front Cover: Ronnie Tidwell admiring the North Pole in Ellisons Cave.

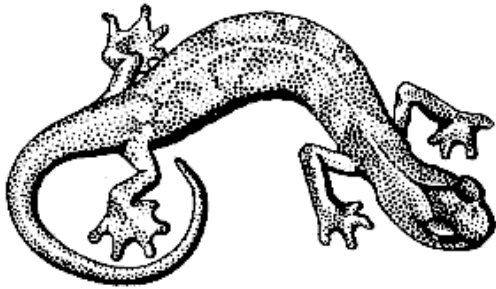
Back Cover: (top) Fall image from Long Island Creek.
(bottom) An old abandoned home near Orme, TN.

All photos by Kelly Smallwood

Calendar of Upcoming Events

All times are CENTRAL

December 12, 2016 – Sewanee Mountain Grotto Meeting at the home of Maureen Handler, 900 Old Sewanee Road, Sewanee, TN. Holiday themed Pot Luck begins at 6pm central. Please do not bring any desserts as they will be provided. Meeting begins at 7pm. Officer elections will happen during the meeting and afterwards we will play sneak santa. If you wish to participate in Sneaky Santa, please bring a wrapped gift (value \$10).



January 9, 2016 – Sewanee Mountain Grotto Meeting at the home of John Attaway, 1545 Old Sewanee Road, Sewanee, TN. Potluck dinner starts at 6pm cst, followed by the business at 7pm. Presentation to follow the meeting

February 10, 2016 – The Cave Connection movie at The Camp House in Chattanooga. 7pm eastern. 10% of bar sales benefit the SCCi.

February 13, 2016 – Sewanee Mountain Grotto Meeting at the home of Harold & Cindy Geick. Potluck dinner starts at 6pm central, followed by the business at

7pm. Presentation to follow the meeting.

March 12, 2016 – Sewanee Mountain Grotto Meeting. Location TBD. Potluck dinner starts at 6pm central, followed by the business at 7pm. Presentation to follow the meeting.

March 12, 2016 – SERA Winter Business Meeting hosted by the Smoky Mountain Grotto at the Tennessee Valley Unitarian Universalist Church in Knoxville, TN. More details later.

March 14, 2016 – Banff Film Festival World Tour. Finally the Banff Mountain Film Festival World Tour is making a stop in Chattanooga. More information as date gets closer. Group tickets will be available.

Connect with the Grotto

If you're new to the Grotto, here are a few ways you can get to know other members:



Join us on a Grotto Trip, Survey Trip or a Cleanup.



Sewanee Mountain Remailer: After you have joined the grotto, join our mailing list to keep up to date with cave

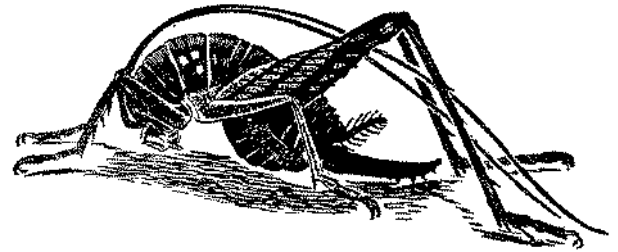
trips and meetings. Go to: http://sports.groups.yahoo.com/group/sewanee_mountain_grotto and click join. Please provide your real name so we'll know who you are.



Facebook – Join our official unofficial Facebook Page to meet other area cavers and plan trips. Search for Sewanee Mountain Grotto under groups.



Grotto Merchandise: The Grotto has sold out of patches. We do still have plenty of KOOZIES for \$1. Please contact Kelly Smallwood at rowland7840@bellsouth.net to purchase.





THE TAG SCOOP

****2016 Dues are due.** You can download an updated membership list from the Yahoo group. Membership dues are \$10. You can pay Blaine at a meeting or send them via snail mail. Send check payable to Sewanee Mountain Grotto, 669 Old Sewanee Road, Sewanee, TN 37375. Make sure to include your contact information (name, address, phone #, email address, & NSS #).

The NSS has recently launched the option to receive your monthly NSS News digitally! To opt in, please contact the NSS Office for more details.



The Last Swaygo Packs

Swaygo Gear has lost it's source for reasonable quantities of pack material. Getting more, seems to be out of reach financially and logistically. The current stock at vendors (Inner Mountain Outfitters, Karst Sports, and On Rope 1) and swaygogear.com will be the last Swaygo packs for the foreseeable future.

Of course, the rest of the innovative and ingenious Swaygo products are still available.

Thank you for your support over the past 13 years. The stories of your experiences with Swaygo Gear continue to motivate and inspire.

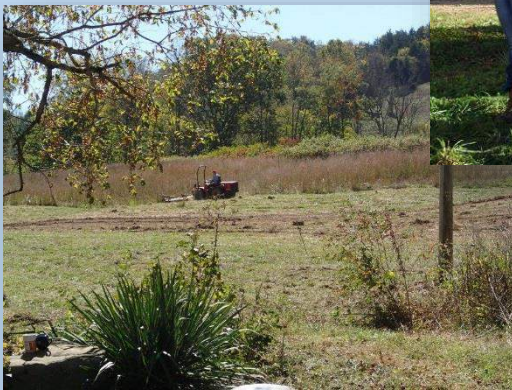
Scott McCrea
Swaygo Gear



Helping a landowner in Need

By William Alan Camp

On October 17, 2015 Myself, Melinda, Susan Williamson, Mike Ob, Sidney B Grindle, Frank Manyard, and Melissa Harris went to help the land owner of Cannon County Blowhole get his farm ready for the winter. Earlier this year he was stricken by Gillian Barre syndrome and was paralyzed. He spent many months in the hospital but is now home recovering. In return for our help, he fed us BBQ that was out of this world. Thanks for the access to the cave and the food Bob.



Montague Cave Cleanup

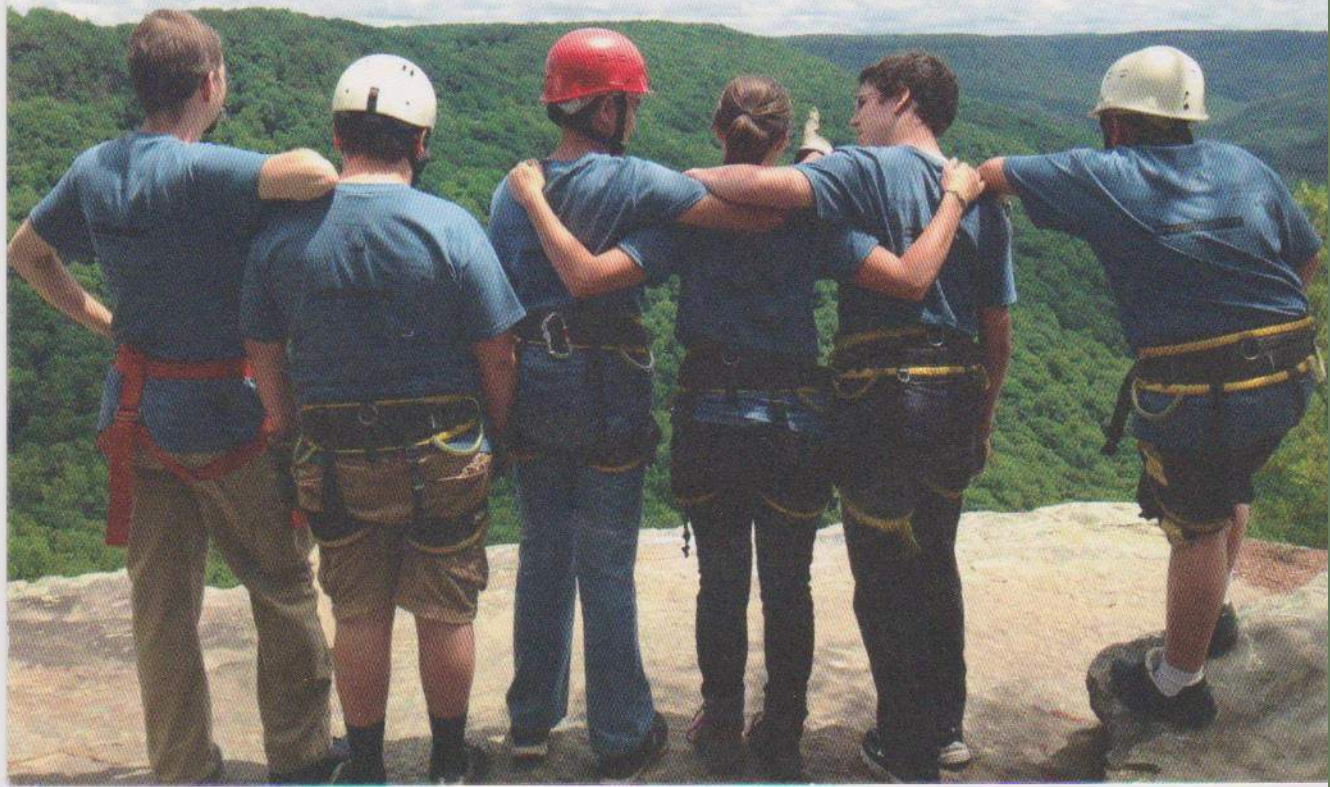
By Kristine Ebrey – Photos by Jim Loftin

On Aug. 8, 2015 Sewanee Mountain Grotto organized and participated in a cleanup at Montague cave located near Andy's abode. Some fellow cavers including myself had visited the cave previously and noticed a good deal of trash that had washed into the cave from the recent rains. 17 cavers armed with trash bags, gloves and nets (courtesy of Andy and Maureen) ventured into the cave before the grotto meeting. A few hours later, we emerged with enough trash to fill a truck load, several tires and big smiles.

I would like to thank the volunteers for an awesome job, Andy for organizing the efforts and hosting the cleanup, grotto meeting and presentation (in the cave!), Maureen for helping me secure the proper materials, and Bill Torode for hailing the trash away.



Camp Discover



Sawanee Mountain Grotto: Maureen & Blaine

Thanks for ~~xxxxxx~~ taking the time to organize the Clean-up day for my campers. I thought it went really well and I can't wait to get them in an actual cave next year. I hope you know that it means a lot to the kids that the community is willing to come out and meet / work with them. This was a summer they won't forget and thanks again for being a part of it. —Discover Staff,
Sarah Brown

Run to the Mill SKTF Cleanup

On November 14, 2015 about two dozen cavers (some who even drove nearly 3 hours each way) showed up to clean up an area along the roadside that had become a trash dump on the Run to the Mill Cave Preserve. A few tons of trash was removed along with an astonishing 85 tires. Unfortunately, none of the board members from the SCCi were able to make it to the clean-up but thank you to everyone who took time out of their day to show the SCCi how much you care about this cave!



Sewanee Mountain Grotto Fiery Gizzard Trail Re Route Work Day

In August, Friends of South Cumberland announced to the public that the midpoint section of the popular Fiery Gizzard Trail in South Cumberland State Park would soon be closed to hikers. The issue involves the owner of a portion of the trail near Raven Point, who has requested the removal of the park trail from his property by Dec. 1. The loss of the trail will also mean the closing of the popular Raven Point Campground, also on private land.

The trail is a 12.5-mile connector between Foster Falls and Grundy Forest Trailhead that was voted among the top 25 hiking trails in the U.S. by Backpacker Magazine in 2015. It is also considered one of the best foliage hikes in the nation.

In full emergency mode, officials with Friends of the South Cumberland and the South Cumberland State Park are seeking volunteers to help with rerouting a 1.5-mile portion of the trail around private land. A series of meet-ups have been created with volunteer opportunities both on weekends and throughout the week. However, the proposed changes will make the trail much more strenuous for hikers, with an 800-foot elevation drop in the gorge.

According to the interim park manager, George Shinn, the reroute will involve a steep decline; replacement of large rocks; and switchbacks into the gorge, across the creek and up the other side. "We're basically creating a new trail that is going to be about a mile and a half long," Shinn said. "Essentially, we're building staircases with rocks, and it goes down to 800 feet. And then we'll need to come back up the other side. It's rugged and steep. But if we're going to continue to have a through hiking trail on the Fiery Gizzard, then this is what has to be done."

Two bridges will also need to be constructed over the Fiery Gizzard (creek) to complete the trail. Shinn said this would need to be completed by February in order to keep the trail open through the spring—although he said this was unlikely and that he anticipates an extended closure of the connector trail.

Volunteers are encouraged to sign up for the meet-ups and gather at the Fiery Gizzard Trailhead in Tracy City. Sturdy shoes, water and snacks are encouraged. Guests can also bring a favorite tool or pair of gloves to help clear the rough terrain.

In November, 16 Sewanee Mountain Grotto members along with the local Boy Scout Troop from Jasper showed up (in the rain) for a work day on the trail! Even though the work is not complete, the thru trail will continue to remain open. To volunteer please contact the South Cumberland State Park in Tracy City, TN at 931-924-2980.



Tennessee's Rarest Plant: Hart's-tongue Fern



****If you have ever wondered why “The Sinkhole” here in Marion County is closed for visitation, perhaps this will give you some insight on why some caves are closed.**

Sept. 13, 1897

My Dear Madam,

The plant I want to know of is...hart's tongue fern...This fern is found only here in Central New York; two places in Canada; in Mexico somewhere; and "near South Pittsburgh, TN."...I attend Syracuse University, and this is my last year there. I am very anxious to get together a good deal of material on this fern, and shall anxiously await a reply from you...

Very sincerely yours,

Will R. Maxon

The author of this letter, who would later become curator of the U.S. National Herbarium and president of the American Fern Society, was writing Mrs. Joseph Lodge of South Pittsburg, Tennessee, about what might today be the rarest of Tennessee's plants. Our single known population of hart's-tongue fern (*Asplenium scolopendrium* var. *americanum* (Fern.) Kartesz & Gandhi) inhabits a sinkhole on the side of the Cumberland Plateau in Marion County.



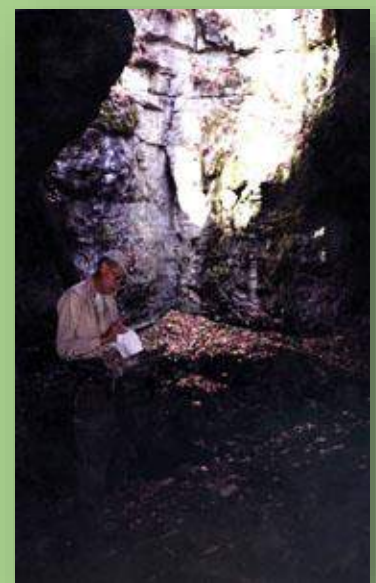
The Sinkhole in Marion County, Tennessee

First discovered in 1878 when the territory was being prospected for coal, the population decreased from approximately 200 plants to "only a few left" in 1925. In 1929, fearing the loss of the waning population, interested parties sprinkled spores from plants in Ontario, Canada, into the sinkhole. It is not known if succeeding plants were derived from the introduced spores or from the original stock.

Hart's-tongue's spotty distribution, as noted in the letter, is the result of its particular environmental requirements: constant low temperatures; plenty of shade and moisture; and rich, limestone-based soil. A boreal plant, it was forced southward during the ice ages, and our relict population has clung on in this deep sinkhole, as well as in two similar sites in Alabama.

George Ramseur, Director *emeritus* of the Sewanee Herbarium, began visiting the sinkhole in 1963 and has continued to chart the progress of the population. Since he began making his observations, there have been environmental changes due to trees dying or falling and altering the amount of light reaching the sinkhole floor. The nature of the sinkhole allows only a few hours per day of direct sunlight. The number of plants has fluctuated widely, with a maximum of 16 plants. In 1993, he found only one small plant, and for several years he did not see more than one plant on any visit. All of these plants were very small, with fronds less than two inches long, and none had reached maturity to a state of spore production.

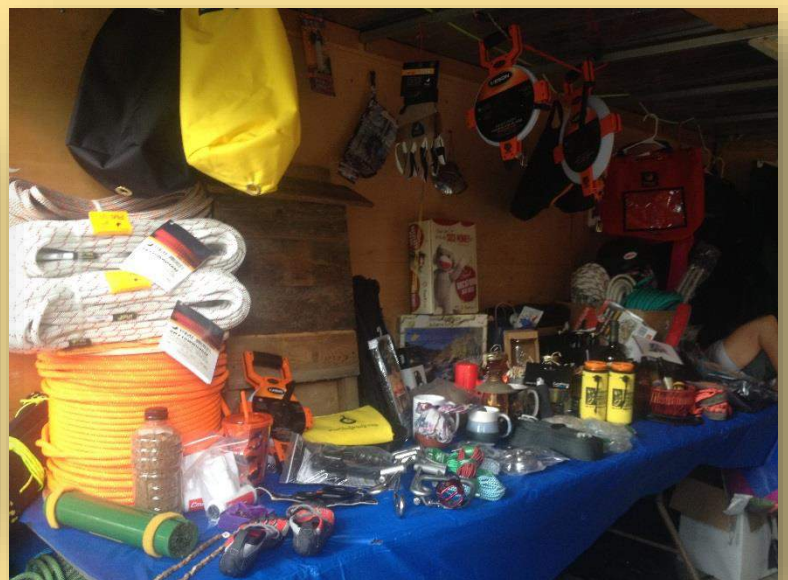
In 1996, a visit by staff members of the Tennessee Nature Conservancy located two plants in the sinkhole's moss-and liverwort-covered ledges and sticky clay soil. In 1999, those plants had disappeared, and two different plants were located by a member of the National Speleological Society. These two plants appear to be in good condition. One has five or more leaves up to about four inches in length and the other has five leaves up to nearly two inches long. Tennessee's rarest plant is still here. It is, however, in need of protection.



Ramseur on a visit to the sinkhole

Cave Fest 2015 Recap

Since 2010, the grotto has been keeping up with Cave Fest Income vs. Expenses. Since that time our expenses have more than tripled but so has our income. This year we did exceptionally well and our income increased by nearly 25% from 2014. I believe some of these factors were due in part because we had more attendance and had some newer folks come out to the event. During the auction, it was hard to win anything for a deal and folks were willing to give back. The auction ran like a well-oiled machine and only lasted around 2.5 hours. Thank you to everyone who helped out this year from the work weekend, registration, the auction, the dinner, leading trips, etc... And a **BIG THANK YOU** again to all of the vendors who supported our Auction. Since the event, the grotto has already donated \$2,000 to the NSS and \$2,000 to the SCCi from the proceeds... Way to go Sewanee Mountain Grotto.



Expenses	Notes	2010	Notes	2011	Notes	2012	Notes	2013	Notes	2014	Notes	2015
Meat for the Potluck	pig & processing	\$200.00	pig & processing	\$245.00	pig & processing	\$225.00	Chicken/Pork to be cooked by Pup	\$113.88	Meat cooked by Pup, plates, foil, etc...	\$234.05	Cooked by Cindy Ingram (75lbs chicken, 50lbs pork)	\$136.00
Beer	2 kegs	\$260.43	3 kegs + homebrew	\$517.64	3 kegs + homebrew	\$464.85	3 Kegs & Homebrew	\$431.12	3 free kegs from Convention (2 spoiled), plus 1 bought keg +\$100 in more beer	\$239.00	3 Kegs (2 five gallon home brew)	\$396.58
Grotto Mugs	x		qty 200. \$1.13 each cup	\$208.00	qty 200. \$1.15 each cup	\$203.00		\$0.00	Qty 80 (new style, 16oz) \$2.17 each cup	\$159.60	Qty 80 (16oz)	\$169.60
Shipping on mugs	x			\$16.94		\$25.83		\$0.00		\$14.17		\$15.00
Misc Beer Charges	x		x		x		x		Co2 for tanks	\$12.02	n/a	\$0.00
Band	Ever Vega	\$150.00	Ever Vega	\$200.00	Albert Ogden	\$350.00	Albert Ogden	\$350.00	Albert Ogden	\$500.00	DJ	\$350.00
Port o Let	qty 1	\$70.00	qty 2	\$150.00	qty 2	\$150.00	qty 3	\$215.00	qty 4	\$270.00	qty 4	\$270.00
foil, misc supplies		\$63.22		\$87.49		\$78.93	charcoal/pans	\$21.82	included in meat \$	x	charcoal, bbq sauce, pans, etc...	\$61.00
sodas, waters, popcorn	x		Friday night Movie	\$33.00	Friday night Movie	\$28.97	Friday night Movie (popcorn & cups)	\$10.31	Tie dye	\$30.00	Kids activities	\$30.00
misc supplies	x		x		paint for new road signs	\$25.71	replacement poles for 20x40	\$43.45	Pizza for work day	\$97.33	Mud wrestling (\$28.37, wheat straw \$47.74)	\$76.11
Plates, Utensils, etc... for Dinner	x		x		x			\$34.59	included in meat \$	x	plates, cups, etc...	\$33.53
Tshirts	x		x		25 cotton / 25 moisture wicking	\$442.89	51 moisture wicking	\$525.25	70 shirts	\$552.00	\$8.25 each (100 shirts)	\$825.00
Postage for auction donations	x		x		x		Stamps, envelopes, labels	\$55.20	Stamps, envelopes, labels	\$74.93	Stamps, envelopes, labels	\$90.52
Total		\$743.65		\$1,458.07		\$1,995.18		\$1,800.62		\$2,183.10		\$2,453.34
Income	Notes	2010	Notes	2011	Notes	2012	Notes	2013	Notes	2014	Notes	2015
Auction		\$2,530.00		\$3,567.00		\$3,415.00		\$3,418.00		\$4,094.00		\$6,084.00
Yard Sale		\$170.00		\$168.00		\$79.00		\$109.00		x		x
Misc Donations		\$125.00	includes sale of mugs	\$1,040.00		\$183.00		\$110.00		\$57.00		\$12.00
Online auction	painting	\$125.00	gift card	\$30.00		x		x		x		x
Misc Items	x		x		x		rope raffle	\$605.00	SMG hats	\$40.00	SMG Koozies	\$23.00
Tshirts	x		x		sold out	\$850.00	sold out	\$1,000.00	sold out	\$1,400.00	96	\$1,920.00
Mugs	x					\$540.00		\$600.00		\$660.00	x75	\$750.00
Patches	x		x		x1	\$5.00	x2	\$10.00	x4	\$20.00	x15	\$75.00
Member dues paid at event	x		x		x5	\$50.00	x4	\$40.00	x7	\$70.00	x11	\$110.00
Total		\$2,950.00		\$4,805.00		\$5,122.00		\$5,892.00		\$6,341.00		\$8,974.00
Gross total		\$2,206.35		\$3,346.93		\$3,126.82		\$4,091.38		\$4,157.90		\$6,520.66

Cave Fest Income vs Expnses





Noteworthy Paddle in TAG
 Long Island Creek, Jackson County
 Waterfowl Management Area,
 Jackson County, Alabama
 Activities: Flat Water Paddling (class
 I), Photography, Nature Appreciation
 Rating: Beginner

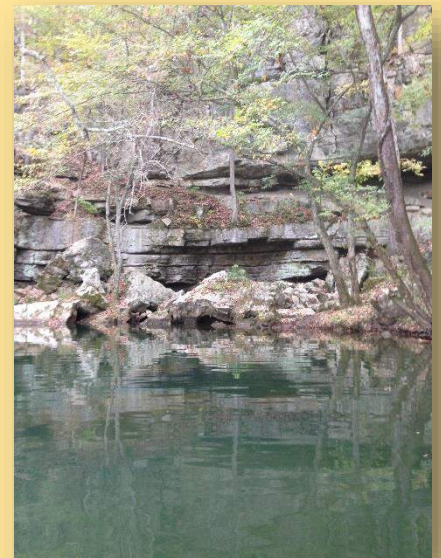
Lake Guntersville begins in the State of Tennessee at the 81-foot high Nickajack Dam. The Tennessee River runs 75 miles through Guntersville Lake, providing 949 miles of shoreline and 69,100 acres of water surface. Lake Guntersville is one of the most stable Tennessee Valley

Authority (TVA) reservoirs, fluctuating only two feet between the normal minimum winter pool and the maximum summer pool. Tributaries of the Tennessee River and Lake Guntersville include: Big Coon, Brown, Coon, Crow, Long Island, Mud, North Sauty, South Sauty, Scarham, Short and Town creeks.

Long Island is located in a cove on the northwest corner of Sand Mountain. It is rich in Native American history and was one of the five lower towns established by the Chickamauga Cherokees in 1782 under the leadership of Chief Dragging Canoe. According to Cherokee legend, his name is derived from an incident in his early childhood in which he attempted to prove his readiness to go on the warpath by hauling a canoe, but he was only able to drag it. Dragging Canoe was a war leader who led a dissident band of young Cherokees against the United States in the American Revolutionary War. He was considered by many to be the most significant leader of the Southeast.

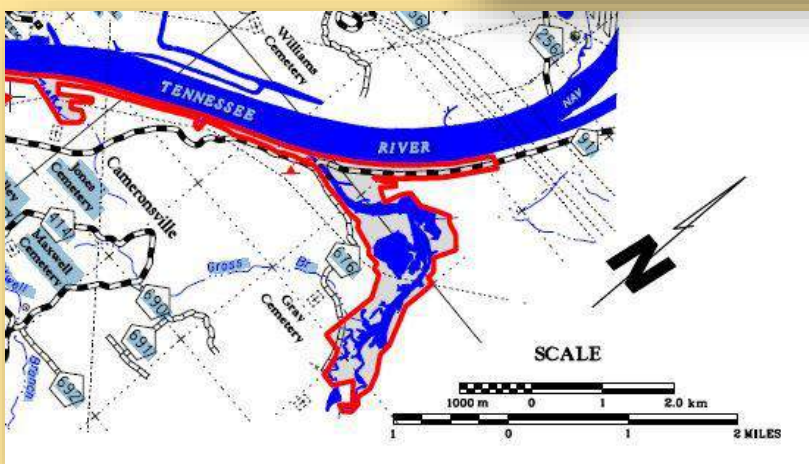
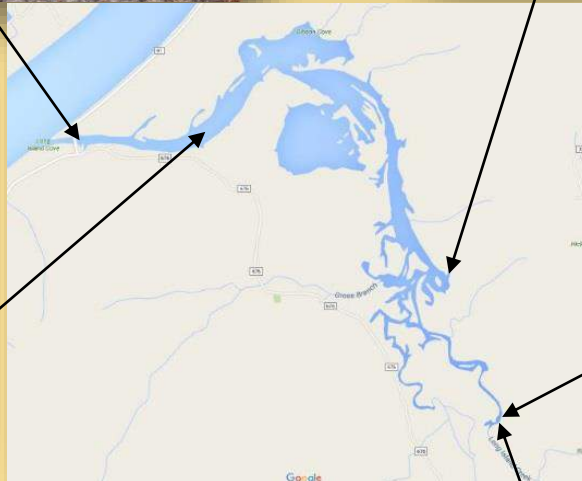
The majority of Long Island is now owned by private citizens, however Long Island Creek itself is contained within the 8,507 acre Raccoon Creek Wildlife Management Area. The area is managed by the Alabama Department of Conservation and Natural Resources Division of Wildlife and Freshwater Fisheries. The management area stretches along the east bank of Lake Gunthersville for about 15 miles between Long Island Creek and Coon Creek.

The boat ramp to access Long Island Creek is located near the mouth of the creek and the Tennessee River, not far from the intersection of CR 91 & CR 676. Once you turn onto CR 676 the boat ramp is on the left. Following the main channel, you can paddle upstream Long Island Creek for about 3 miles. You eventually reach a point where the creek gets too low and rocky to continue on. There are a few side lakes that you can paddle into but those areas can be shallow being only 1-2 feet deep in some areas. One notable feature that Jason and I discovered on our paddle is a spring located on the left side of the creek towards the back in the "donut" shaped area. The entire Long Island Creek area offers great opportunities for wildlife viewing. On our paddle, we saw many Great Blue Herons, ducks, snakes, turtles and fish.

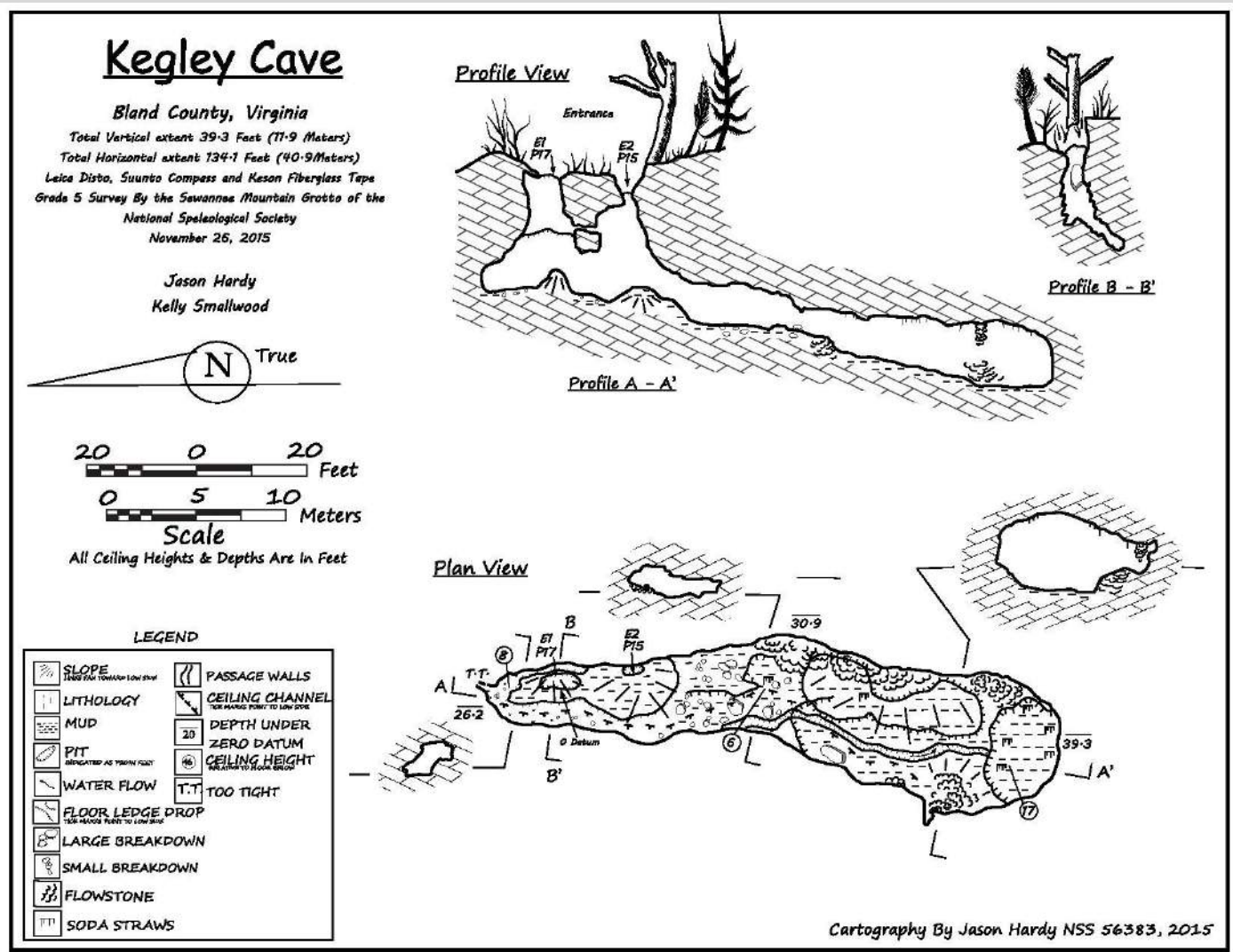


Directions: There are several ways to get there depending on where you are coming from. If you are traveling from north of South Pittsburg or from the Chattanooga area, find your way to I56 and head south on CR 91 which is located across from the south entrance to Nickajack Dam. Go for nearly 8.5 miles and just after you cross over the bridge at Long Island Creek, turn left onto CR 676 and the boat ramp is on the left. If you are heading from the Huntsville area, follow Hwy 72 until you reach Stevenson and make a right onto CR 117. Cross over the Tennessee River and make a Left onto CR 91. Follow 91 back until the sharp curve at CR 676 and head straight on CR 676 and you will see the boat ramp on the left.

To download a Jackson County WMA Map, go to www.outdooralabama.com/sites/default/files/Jackson%20County%20WMA.pdf. Long Island Creek is in the lower right corner.



Recent Maps by Jason Hardy



In November 2015, Jason Hardy and I (Kelly Smallwood) were hired to survey two caves in Bland County, Virginia. The local power company is installing new high tension power lines and wants to make sure they are not damaging the cave. Unfortunately, after choosing the Thanksgiving weekend to survey both caves we found out last minute that due to hunting season, we were only able to get into one of the caves on this trip and will have to return later for the second. So on Thanksgiving Day we headed up to Bland and camped at the Stony Fork Campground. The Stony Fork Campground is a National Forest Campground and was very nice. Since we had a few hours of daylight after arriving we decided to check out the Seven Sisters Trail that leads from the campground to the top of Little Walker Mountain.

On Friday morning we went and checked in our hotel and then went over to the first cave to survey, Kegley Cave. Kegley cave is located in a cow pasture in a small tree covered sink hole. There are three large sinks in the vicinity of Kegley cave that could be connected hydrologically but are not physically connected via traversable passage. Kegley cave has two entrances in its sink. E1, which is the main entrance, is a 17 ft drop from the high side and leads to the main cave. E2 is a 15 ft drop which also leads to the main cave but is much smaller in diameter. From both E1 and E2 a main trunk passage heads south/ southeasterly for 117.1 ft. From the bottom of the 17 ft pit a main room area has two shallow dome rooms that can be seen before the cave ends. The majority of the cave is walking passage. The cave is formed in a tilted limestone bedding plane which more or less could be the reason why no more cave passage was found. Airflow was noted on the survey but no leads were found that could be humanly traversable. Three tri colored bats were seen towards the back of the cave the day of the survey, along with two salamanders, several cave crickets and one slug.

Only Used Once Pit

Marion County, Tennessee

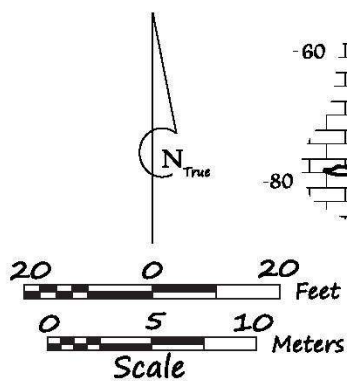
TMN384

Total Vertical extent 88-8 Feet (27.1 Meters)

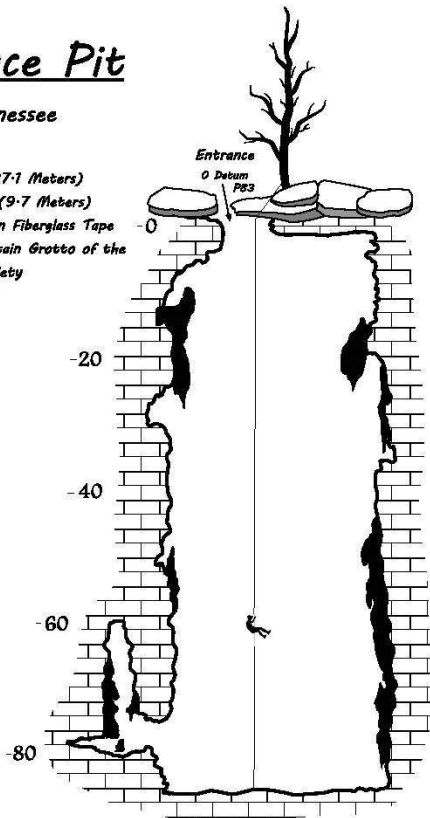
Total Horizontal extent 31-8 Feet (9.7 Meters)

Leica Disto, Suunto Compass and Kason Fiberglass Tape
Grade 5 Survey By the Sewanee Mountain Grotto of the
National Speleological Society
September 13, 2015

Jason Hardy
Kelly Smallwood
Stephen Collins
Kristine Ebrey

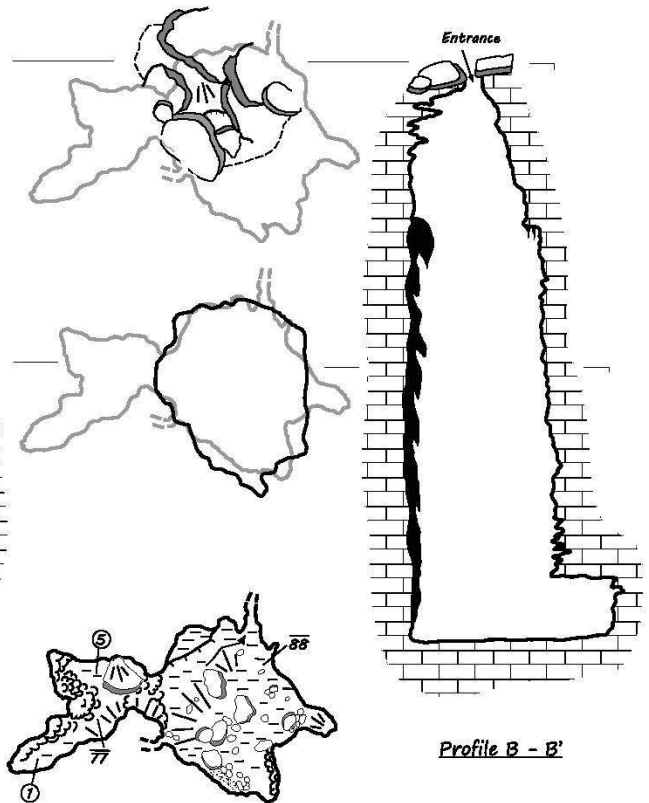


All Ceiling Heights & Pit Depths Are In Feet



Profile A - A'

Note: All pit plan views are oriented to True North.
Lower passage walls in gray.

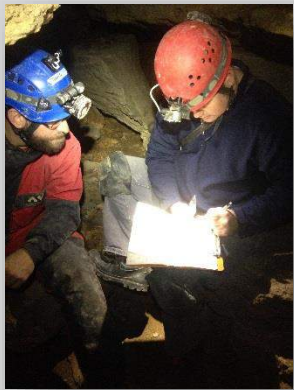


Profile B - B'

Cartography By Jason Hardy NSS 56383, 2015

Jason Hardy, myself, Stephen Collins and Kristine Ebrey surveyed Only Used Once Pit in Marion County on September 13, 2015. Only Used Once Pit is located in Rexton Hollow and is only a short four wheeler drive from mine and Jason's property.





Jason Hardy, Myself (Kelly Smallwood), and Travis Camp surveyed Goodman Saltpeter Cave on November 15, 2015. Goodman Saltpeter is located in the next cove over from our project, Wonder Cave. During the summer months Goodman blows an enormous amount of air and sucks in air during the winter. On our last survey trip into Wonder, we placed several incense sticks in the back of Goodman to see if we could possibly smell it in Wonder. Unfortunately, we did not make a connection via incense! Regardless, having it surveyed will now show us on a topo map how close it actually does come to Wonder Cave!

Goodman Saltpeter Cave

Grundy County, Tennessee

TGID# 226

Total Vertical extent 11.1 Feet (3.4 Meters)

Total Horizontal extent 359.8 Feet (109.7 Meters)

Leica Disto, Suunto Compass and Keson Fiberglass Tape

Grade 5 Survey By the Sevannee Mountain Grotto of the

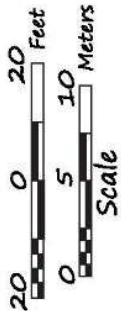
National Speleological Society

November 15, 2015

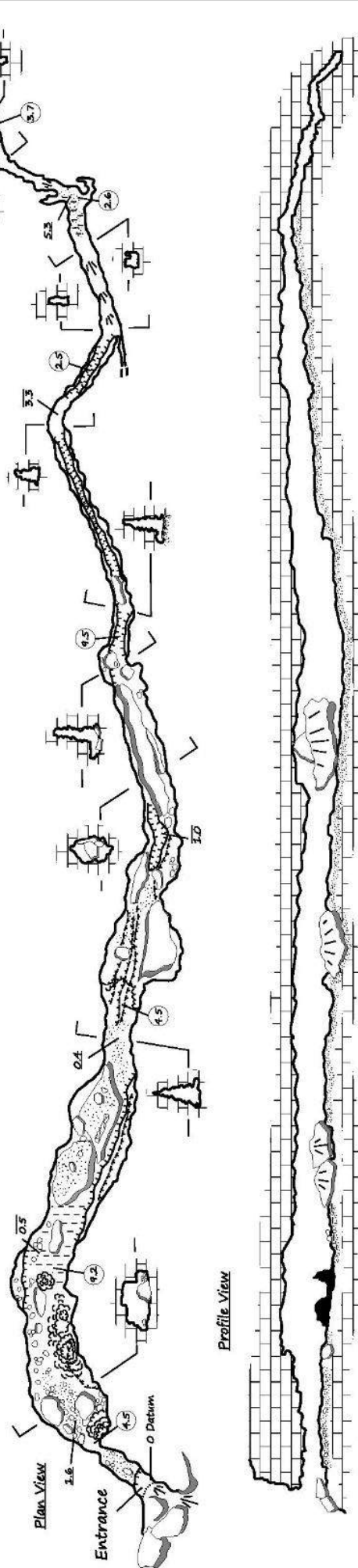
Jason Hardy

Kelly Smallwood

Travis Camp

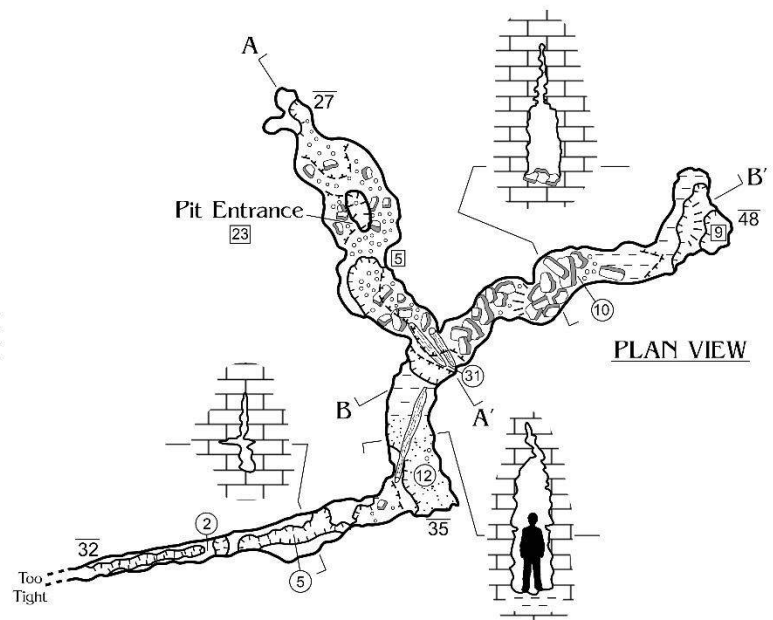
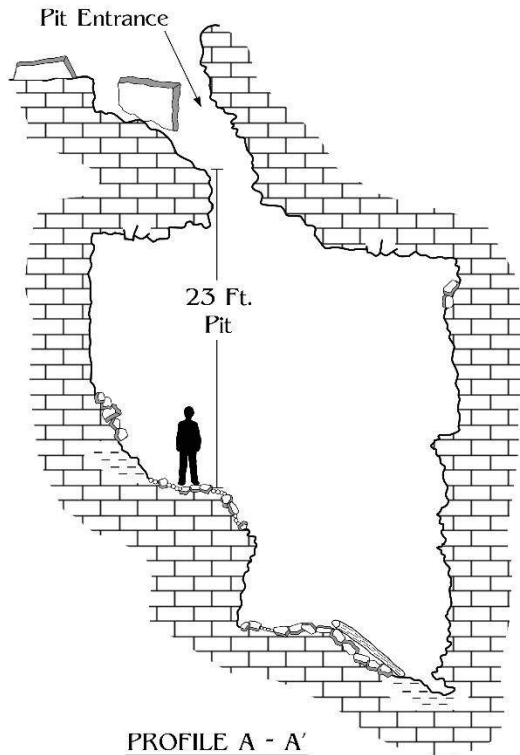


All Ceiling Heights & Depths Are In Feet



More maps from Ben Miller & the DPAS Project

Ben Miller and crew continue to work on their project to map the deep pits in T.A.G. In this issue are new maps for Cedar Well in Davidson County, TN and Melton Hole in Cannon County, TN.



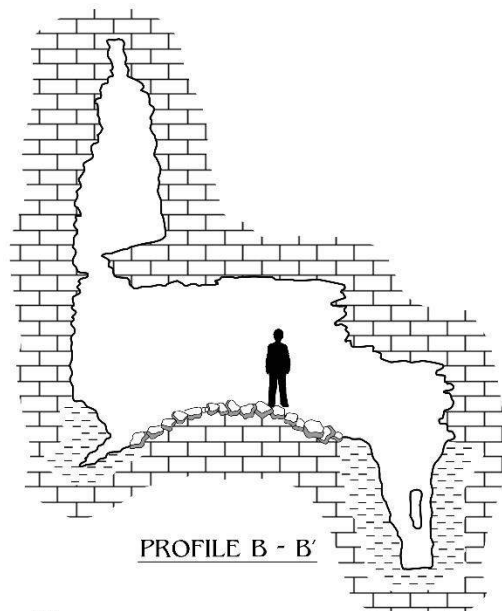
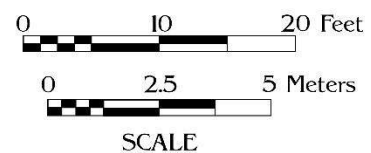
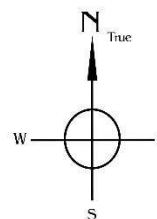
CEDAR WELL Davidson County, Tennessee TDA 069

Suuntos, Fiberglass Tape,
& Leica Disto Survey By:
Abigail Harmon
Ben Miller
Matt Tomlinson

August 7, 2015

Drafted by Ben Miller, 2015

Total Horizontal Length: 107.3 Feet (32.7 Meters)
Total Depth/Vertical Extent: 48.5 Feet (14.78 Meters)



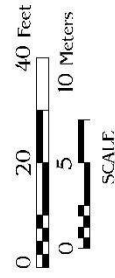
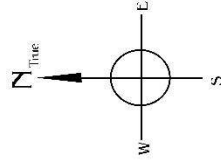
MELTON HOLE

Cannon County, Tennessee
TCN 018

Suunto, Fiberglass Tape,
& Leica Disto Survey By:
Brian Ham
Katie Ingram
Ben Miller

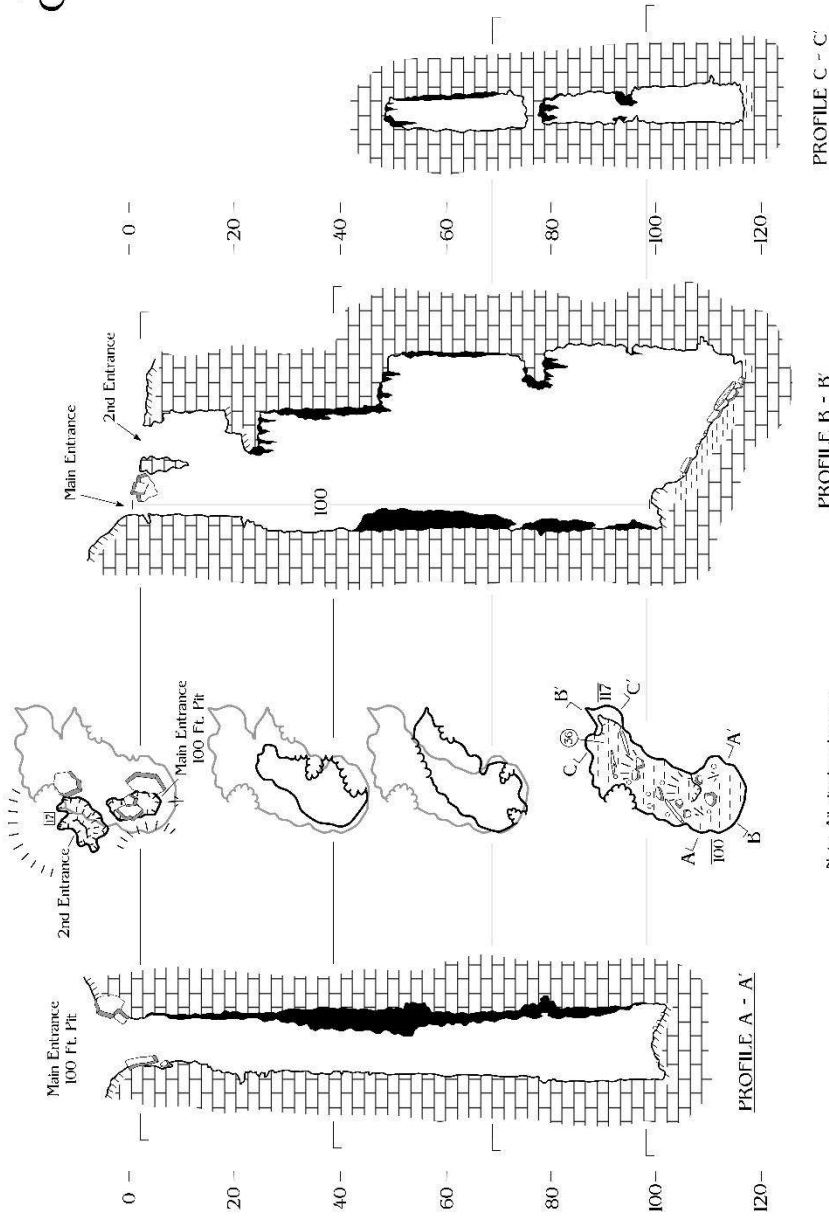
August 2, 2015

Cave is formed in Mississippian
Monteagle Limestone



All Ceiling Heights & Depths Are In Feet

Total Length of Cave: 36.2 Feet (11.03 Meters)
Total Depth of Cave: 117.2 Feet (35.72 Meters)



Note: All pit plan views are
oriented to True North.
Lower passage walls in gray.

Drafted by Ben Miller, 2015

Kids Caving in the Sewanee Mountain Grotto

Some photos from some recent kids caving trips with the Sewanee Mountain Grotto



My first trip to Fantastic Pit & the bottom of Ellison's

By Kelly Smallwood

Anyone who knows me, knows I have always said I was not interested in doing the "DEEP" pit, Fantastic. A few years back, Jason Hardy and I along with a few others visited Fern Cave and bounced Surprise Pit. I had a terrible rappel that day which left me feeling no interest in doing Fantastic. The rope was extremely stiff and I had to feed A LOT... But I did always tell myself if I were to do Fantastic then I would want to do more than just the pit, I wanted to see some of the cave. This is something that Anne Grindle and I had discussed on a few occasions over the last year and then over the summer, Ronnie Tidwell put us on the spot. He asked the question, "Do you want to go to Ellison's". I knew I would never plan my own trip so it was a relief when Ronnie asked and I immediately responded without even thinking about it with a YES! I knew I could do it... I told Anne we could climb tandem together since Jason likes to climb solo. She agreed and the date was set. About two weeks prior to the trip, Anne, Jason, and myself went to Cagle Chasm to bounce it a few times in preparation for our trip. Blaine came along but he tended the rope at the top. The first climb, we all climbed solo. The second climb, I climbed on top with Anne on bottom and the third climb, Anne on top with me on the bottom. Anne was using a Mitchell Climbing System and I was using a Rope Walker. It felt much better climbing with her on top so we decided that is how we would also climb Fantastic. This would also allow Anne to set our pace.

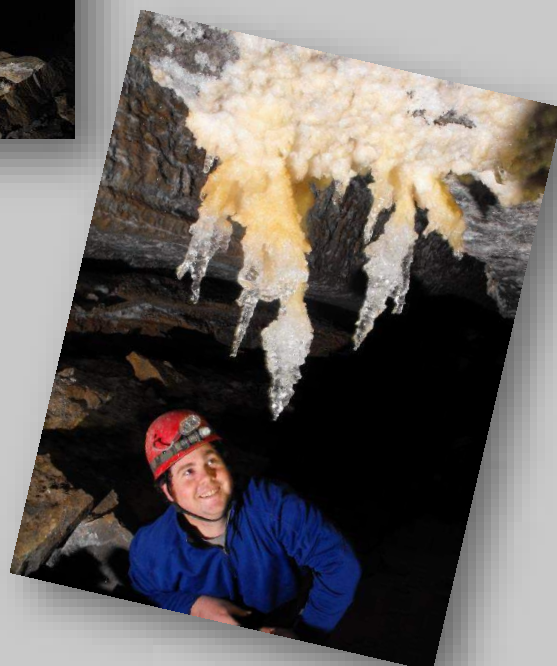
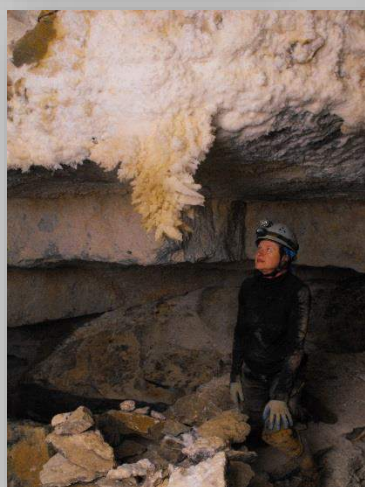
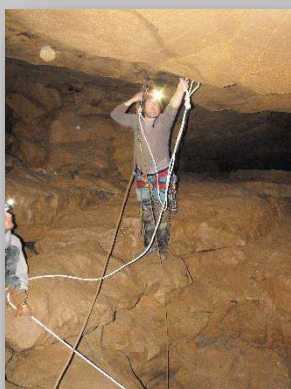
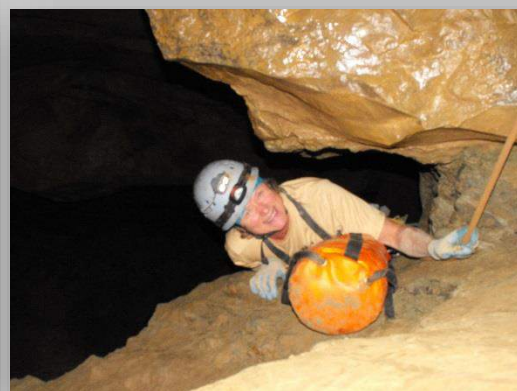
On Friday October 2nd after dropping Dakota off in Calhoun, Georgia to spend the weekend with her dad, I made my way over to the campground near the Blue Hole on Pigeon Mountain. By the time I had arrived, Stephen Collins was already there. We had mentioned to Stephen about our trip so he volunteered to lead us to see some of the cave. Later, Anne, Ronnie and Mike Berry arrived. We hung out by the fire trying to wait for Jason who gets off late in Chattanooga. Finally, Jason arrived and it was time for bed.

The next morning, we all awoke early to RAIN. It had started raining at some point in the night and had not stopped. We waited around for a while hoping to wait it out. After looking at the radar it was determined the rain was not going anywhere for a while so we made a backup plan that if there was too much water in Fantastic Pit then we would rig Smokey I and rappel into TAG Hall. On the hike up to the entrance it rained on us the entire time. Not heavy downpour, but slow and steady rain. We were all in the cave by 11am central and once we got to the Warm Up Pit, the water levels seemed fine. Once at the top of the Attic the water also seemed fine in the pit so we decided to go ahead and rig it. Jason rigged and then Ronnie, Mike and Jason went down the 586' beast! One by one... I had not gotten nervous about the rappel until it was literally MY TURN! I clipped into the traverse line and walked over to the lip of the pit. I reached out and grabbed the 643' rope and that is when I felt the weight of it. I immediately got a little anxiety and flashed back to my rappel at Surprise. Fear of having to feed the rope, I got worried and had only rigged in three bars on the rack when I started removing the rope from it. I looked back at Anne and asked her to go ahead of me. Anne safely rigged in and she was on her way down. Stephen had been timing everyone's rappel. So far, it had taken Ronnie & Jason both about 6 minutes, Mike only 4 and then Anne nearly 17. After rigging in for the second time, I went over the ledge, removed my safety and began my rappel. Stephen advised me no matter what to not feed the rope, to just go slow and take my time... It took me nearly 11 minutes to rappel the 586 feet but it was an AWESOME rappel. No feeding, just gently going down the rope. As I got closer to the bottom, I used my hyper bar to slow me down some. Once off rope, I was extremely excited. I was there, at the bottom of Fantastic Pit... A place I never thought I would be. I think I must have dropped the F bomb at least a dozen times and everyone was enjoying my excitement. Next Stephen came down and we took a few minutes for each of us to sign the register.

It had been at least 5 years since Stephen's last trip to the bottom of Fantastic so he had brought with him notes from a previous trip on how to get to the North & South Poles. We had a little route finding but not much. Someone has also put some flagging along the trail to help you find the way. Going through the Fault Room was amazing... Rubbing my fingers along the lines in the wall! There are several climb ups/downs along the way. We decided to take a lunch break at the Crystal Junction. As Jason and I were sitting there waiting on the others to catch up, I noticed a single sock sitting on a rock. Odd place for a sock I thought and then Anne comes hobbling up and says, "The sole of my boot is coming off". She asked if any of us had duct tape or extra string, which none of us did... I told her to use the SOCK! She put it over her boot and it seemed to help, for a while. We finally made it to the North Pole. I had brought only one Vivitar 283 flash and my camera just for this moment. We all took turns having our photo made in front of this beautiful formation of Epsomite which is only found inside Ellison's Cave and is often referred to as Ellisonite. It was so beautiful and looked like ice. We then made our way over to the South Pole and all posed for a few pictures there as well. It was now time to make our way back out of the cave and back to the bottom of Fantastic pit... On the way out, Anne's shoe condition began to worsen when the sock we found began falling apart. Crawling through another crawlway on the way out, we again came across two more random socks! I was a bit skeptical as to why someone would leave a perfectly good

pair of socks in the bottom of the cave unless they had used them to do something like WIPE THEIR ASS... Anne inspected them and determined they were safe so she traded out the now worn out sock to a new one for the trip out of the pit and down the mountain.

Since Ronnie and Mike rappelled first, they were the first to climb. Followed by Jason solo climbing and then Stephen solo climbing. I am not exactly sure how long it took Ronnie and Mike, maybe around 40 minutes? Jason climbed in 36 minutes and Stephen in an hour and 15 minutes. It now was mine and Anne's turn. Anne got on rope at 10:53pm central and climbed up a bit before I got on at 10:56pm. As we were climbing, Anne would ask, "Do you think we are a third of the way yet?" I replied, "I am not sure". Then she asked, "Are we half way yet", "I don't know Anne", I replied. The only place I knew for sure was once we reached the balcony! We had a great climb, slow and steady. Anne would climb about 40 steps, then I would climb. As Anne was climbing I would turn my light off. This was so I wouldn't notice the bounce as much. I am sure we all have those thoughts while in a pit!! Once at the top, I finally made it off rope at 11:58pm. It took Anne and I an hour and five minutes. We then pulled the rope and began our way back out of the cave. Back at the Warm Up Pit, we all noticed a significant amount of more water coming in than when we first entered. The last one in our group walked out of the cave at 2:20am and we were all back at the vehicles around 3am. We headed back to the campground, made some dinner and got some rest before heading home Sunday morning.





Caving Boot Saga

By Anne Grindle

A month ago, several of us hiked to a local pit. Kristine had some new- to-her hiking boots and when we got to the pit, she balked..... her feet were killing her. The boots were not sized right and did NOT fit! She did not do the pit and hiked back (later) to the car, sock footed! Since I wear a size smaller than Kristine, she gave me the boots. I had been looking for some "new" caving boots. I am a fan of recycle/reuse and seldom buy new boots.

So, a day later, I wore the boots on my afternoon one mile hike with my pups. And the next day's doggie walk. No problem. I bent the sole vigorously...seemed stout. My best (old pair) of boots had been wet caving a few days before and we had had rain, so no drying had occurred.....they were soaked. So the "new" pair of boots would be taking me up Pigeon Mountain and down into the heart of Ellison's cave. My first trip down Fantastic Pit. Yep. I have caved for 26 years and, until last month, had not been much farther than the warm-up pit in Ellison's. Pits are a means to get to great parts of a cave, but they are not my goal. Weird, I suppose....

I suffer from several human ailments, including insomnia. The night before our trip, I was hoping for a good night sleep and it happened! Yeah! But it rained, and it was steadily coming down. In the A.M. Kelly, Jason, Ronnie, Mike and Stephen and I trudged up the mountain in steady, light rain. Stashed some gear and entered. Boots doing fine. Did the stream hike to the warm-up pit and on down.....boots intact. Up the short climb to land bridge area. On to the pit and after rigging that scary/heavy rope, I went down and down and down... Wow. Humbling rappel. I was slow. Went down on 5 bars. Walked a ways to proclaim "Off Rope". What a hall down there! Now, off to play in the cave!

A fun climb down was right away. And my boot started feeling funny. Kept moving on to clear area for cavers behind me. Down to the stream. And there I discovered that the sole was about to fall off my right boot. Dang! What to do? No duct tape (what kind of a caver am I anyways....?) No extra shoe laces to marry the soon- to- defect sole to the ailing boot. And there, by the stream, was a discarded cotton sock! Not the best option, but the only option. I pulled the sock over my entire boot and caved on.

Very cool passage through there: Some cool slots that you climb up while turned sideways! More climb -ups and downs. And crawls through lovely gypsum! And my boot hangs in there..... Whew. My concern was that such robust caving may shred the cotton sock. But I caved on (and had a deluxe halo!) Finally, the North Pole and then the South Pole. Pleasing day underground. But to cave back to the pit and then climb the pit and then hike down the mountain....could my boot hang with me?

We routed. Boot felt looser, but I caved on. And just when we returned to the stream, there was another PAIR of black socks! With my original sock nearly worn through, I felt the cave gods were looking out for moi! Feeling relieved. I struggled to slide the smaller sock over my whole boot, and pretty much forced it on. Was not a complete cover. Will it stay together for the upcoming long climb? Kelly and I elected to climb last, since we were novices in Fantastic. We had practiced 2 weeks earlier by tandem climbing Cagle's 3 times. An hour and 5 minutes later, I got off rope at the top. I did not heed Stephen's advice on climbing in short sleeves....will next time.....got too warm. But we did it!!

And off to finish out the trip, coil ropes, get down the mountain. Boot miraculously hangs in there. Back to campsite at 2:30 a.m. Big whew! Great trip. I don't appreciate trash in caves, but that day I was thankful for it!

Thanks, Ronnie for including me on your cave trip! Had a ball and was glad I did not cause any havoc with faulty equipment.

At Sunday afternoon volleyball, I handed a sack containing the muddy, sock covered boot (and plain muddy boot) to Kristine at volleyball and said jokingly that I really did not want the boots after all. When she looked inside, I had to tell the tale! We all laughed! I left the boots under the picnic table. Went back 2 days later, to retrieve new laces I had put in them and throw the ill-fated boots away, and the boots were gone! Turns out, a non- caver/ hunter had taken them, cleaned them up and glued my sole back on! He gave them back to me a week later. I actually ridge walked and did another short and wet cave in them last week-end. But I'm still on the lookout for new caving boots!



Caving In: How Bill Steele Follows His Passion for Going Underground

October 26, 2015

by Jane Falla

<http://blueprintearth.org/blogbackend/billsteele>

In deep...world renowned cave explorer Bill Steele has traveled where not many others have dared to go to research and map some of the world's longest and deepest caves. In 2015 he received the Citation of Merit from the Explorers Club, and his new goal is to "spark the youth of today to be the next generation of explorers."

There are many ways that people make critical contributions to science. One is having the courage to explore places that aren't easy to get to. Another is to understand how to round up the right people to do the work, acquire the funding, organize the expeditions, and then share the information in a way that is meaningful.

Bill Steele is one such contributor. A lifelong cave explorer, he has traveled throughout the United States and to Mexico, Belize, Guatemala, and China over the last 50 years. He has written two books chronicling his explorations: *Yochib: The River Cave* and *Huautla: Thirty Years in One of the World's Deepest Caves*.

We were interested in hearing about Steele's passion for cave exploring and learning more about caves as an important piece of our planet's puzzle. As an explorer, Steele's mission is well aligned with that of Blueprint Earth—to study a system, understand how it works, and help others learn about it. Here, Steele corresponded with us to share some of his insights.

Why caves?

I entered my first cave at age 4; it's my first distinct memory. I remember passing through the portal entrance and finding it so friendly and calm, comforting in its darkness and coolness, and not just seeing rock, but being inside and surrounded by solid rock. It was a completely different world entered with one step from the familiar surface world to the totally different subterranean one. As we exited this small tourist cave in Tennessee, I looked back over my shoulder and wondered why it was there. Where might others be?

Family lore has it that I never let it go. On family vacations I would always ask to go see a cave. I got to go in Mammoth Cave, Kentucky, at age 5, and Carlsbad Caverns at age 6, when we moved cross-country to California. At Carlsbad Caverns they turned out the lights at one point and let us experience absolute darkness. I liked the lack of sensory input and caught on that caving was a technological pursuit—you must have reliable light sources.

In a video for *Boys' Life*, you mentioned realizing that you had a fear of heights when you first started exploring caves. How did you overcome it?

I overcame it by progressing slowly, checking and rechecking my gear, asking lots of questions, getting lots of practice, and wanting to and making myself get over it. I turned it around to a love of heights. I walk right to the edge of sheer drop-offs, but carefully.

The longest you stayed in a cave was 13 days. You noticed scorpions that had “de-evolved” to live inside the cave. What life do you find in caves, and what might that tell us about how living things can adapt to different environments?

Caves are classrooms of evolutionary development. I have explored two caves in the same valley, but separated by solid rock, in which different species of similar life forms have evolved. I recently had the privilege of being on an expedition to Sistema Huautla, the deepest cave in the western hemisphere, where we had a biology professor with us from Mexico City. We discovered another cave-adapted scorpion, believed to be an unknown species. The professor works with pharmaceutical companies to develop anti-venom for scorpion stings, which

are the cause of more than 50,000 deaths annually worldwide. Finding a new species might aid in developing a better anti-venom. There are many such stories.

Did you study to become a speleologist?

I started to study geology in college but eventually changed to the business school because my forte seemed to be organizing expeditions, managing people, recognizing talent to build a team, and promoting an endeavor. My concentration was in nonprofit management, and I ended up having a successful 34-year career in that field with the Boy Scouts of America. When I retired I was the national director of alumni relations and the director of the National Eagle Scout Association.

How can budding scientists be self-directed like you in following their passions?

Budding scientists should seek whatever it is that interests them as often as possible and learn from experts. I have been on expeditions with some of the top cave scientists in the world, many who have become personal friends. I followed my passion and also found that my strengths were in making things happen, getting scientists to the places they might not get to otherwise, and persisting through the years to thoroughly explore and study major cave systems.

How did you finance and make the time to do your explorations?

Cave explorers acquire their own equipment and are forever adding to it. It seems expensive if starting from scratch, but if you slowly add things through the years, it's more manageable. We usually drive to caves and share the gas.

Part of my contribution to my current major project (PESHcaving.org) is to raise money for lots of rope and specialized rigging gear, cooking gear, underground camping gear, and so on. There are supporters to be found if you have a worthy effort.

A bit tied up? Here Steele stands at the Bob Marshall Wilderness area of Montana, where cavers discovered Tears of the Turtle, said to be the deepest known cave in the United States.

Time is the biggest challenge. When I taught school my big exploration projects were either close enough to home so that I could do them on weekends and holidays, or in places like the Rockies of Montana, where I could spend my summers.

I changed careers at age 31, mostly to be able to use my available vacation time to go to Mexico in the spring when the caves are the driest due to the rain cycle in the tropics.

Early in my career a colleague questioned the wisdom of working so hard. He asked how I managed to take all my vacation time at once when I had such a demanding workload. I told him that I had to work especially hard to get ahead of my associates to be permitted to take vacation, and when I got back I'd be behind, so then I had to work especially hard to get back ahead. He grimaced and said it sounded like nothing but hard work. I told him he also had no idea how hard I worked while on "vacation," leading the way into some of the deepest, most complicated caves in the world.



Following your passion and making a difference in this world is not about taking it easy.

What are a few of the most important things you've learned about the Earth on your explorations?

Mainly I've learned about the Earth's ancient age. It's evident when you see 120-million-year-old coral embedded in the limestone walls of a cave passage, or sharks' teeth sticking out of the wall. Also pollution. It's getting better, albeit slowly, but some people don't necessarily see the relationship between the sinkhole out back where they throw dead animals and toxic trash and the spring down the hill. Or they think that nasty things going underground get "filtered" before water comes back out, which in limestone it doesn't.

Something else I've learned is how interesting diverse cultures are. I've explored caves in rural areas of the United States, where people look as if they've never seen anyone like me before. Same goes for Mexican Indians in the mountains of Oaxaca and rural farmland in the Wulong Province of southwest China. Through it all I have found people to be curious, smart, witty, and usually friendly and helpful.

Field expeditions can be extremely dangerous. How do you weigh the rewards to overcome the pitfalls?

I've probably had 15 close calls. When things happen they happen fast, and you don't have time to think; you act. It hasn't always been safe; there can be extreme hazards. But you address them in a calculated way and minimize the risk as best you can. If you do the right thing and survive, you have a good story to tell.

What does it mean to you to be an explorer?

To me, exploration means *original* exploration: being the first to go somewhere. I'm a purist about that. I'm also fortunate to be involved in a realm of exploration where that's possible. My legacy from a long career with the Boy Scouts of America is soon to be known. I announced the Exploration merit badge at The Explorers Club annual dinner this year, and this exemplifies my thoughts about exploration. The first two paragraphs of the Exploration merit badge booklet, to be released later this year, read as follows:

Exploration is adventurous, but it is much more than an adventure. Many adventures may be quite exhilarating but are not exploration. Taking a sailing trip in the Caribbean, hiking in the mountains, or joining a guided tour of ancient ruins is exciting, but it is not exploration. However, if you took a sailing trip to the Caribbean to study reef ecology or you hiked in the mountains to survey wildlife, then that would be exploration.

Exploration has a scientific basis, and information is collected and usually shared. The actual trip is secondary to the purpose of discovering information and contributing to scientific knowledge. This distinction is what sets exploration apart from adventure travel, eco-tours, and similarly adventurous activities.

Thousands upon thousands of Scouts will read those words in the years to come. I only hope that someday a recognized explorer comes up to me and says that earning that merit badge in Scouts is what got him on his path. And I hope the Girl Scouts follow suit.



In a tight spot in his home state of Texas. "Following your passion and making a difference in this world is not about taking it easy," says Steele.

The hidden world of the Jasper Blue Spring

By Bob Butters - Published on
November 8, 2015 on
www.nooga.com



The Jasper Blue Spring. (Photo: Bob Butters)

Unknown to most, one of Tennessee's great natural wonders lies behind the tall fence and locked gate of Jasper's water treatment facility. Having heard of the Jasper Blue Spring for years, I finally had an opportunity to visit it earlier this year when the Association of Southeastern Biologists held their 2015 annual meeting in Chattanooga and conducted a field trip to the site at the base of Jasper Mountain.

Pumps draw over 1 million gallons daily for Jasper's municipal water supply as it emerges from the Blue Spring. The remainder flows into Town Creek, which later joins the Sequatchie River. Just behind the pumps, a several-hundred-foot-long blue hole hugs the base of a limestone bluff and is somewhat similar to cenotes found in Mexico and Central America.

It had long been suspected that the blue hole connected to a significant underwater cave. In 2011, a team led by Jason Richards, cartographer and cave diver with the National Speleological Society, was able to get permission to explore the cave. Initially, they penetrated 1,300 feet into the cave. On their most recent dive in spring 2013, which lasted 349 minutes, they surveyed 10,800 feet, including 1,500 feet of new passageway, making this the longest known underwater cave in the U.S. outside of Florida. The cave winds around the end of the mountain and eventually passes underneath the west fork of Pryor Creek, where the passageway widens from 10 to 30 feet with a height of 5 to 6 feet. Richards hopes to explore the cave farther this winter.



Watch a YouTube video about the Jasper Blue Spring here:

<http://tinyurl.com/njlhd7l>

and a short video of Jason Richards on a dive in the cave here:

<http://tinyurl.com/nnubxr7>

Pumps draw over a million gallons of water a day from the Blue Spring for the town of Jasper. (Photo: Bob Butters)

Wildlife of an alien realm

In the course of these explorations, the team discovered a number of species adapted to life in an underwater cave environment. These included the southern

cavefish (*Typhlichthys subteraneus*), southern cave crayfish (*Orconectes australis*) and several species of small underwater crustaceans known as amphipods and isopods.

The cavefish, which at least one researcher considers an undescribed new species, is a small (around 2 1/4 inches), blind, partly translucent fish usually found at considerable depth below the surface and which feeds on various invertebrates.

The colorless southern cave crayfish lacks functioning eyes, instead having enhanced senses of touch and smell.

As for the amphipods and isopods, Dr. Bernie Kuhajda, an aquatic conservation biologist with the Tennessee Aquarium Conservation Institute, said, "Many cave organisms have highly restricted ranges, and I am confident that we have yet to discover many new species, so until someone actually examines these animals from that specific cave, you never know what lives there for sure."

The species that the Jasper Blue Spring is perhaps best known for is the endangered royal snail (*Pyrgulopsis ogmorhaphes*), a tiny creature that you need a magnifying glass to get a good look at. The spring, along with parts of Town Creek and Owen Spring Branch at the nearby [Sequatchie Cave](#), are the only known locations in the world where this species occurs.

Although this underwater cave may be a bit unique, it exists in the heart of cave country. The Cumberland Plateau region and adjacent areas of Tennessee, Alabama and Georgia, known as TAG by the caving community, contain more than 14,000 caves—9,200 of which are in Tennessee. The limestone that underlies much of the region is conducive to cave formation, as it is easily erodible by slightly acidic water.

Considering that the extent of this cave only became known in recent years, who knows what other underground wonders remain to be discovered beneath the Cumberland Plateau region?

Bob Butters explores nature and the outdoors, primarily in and near the South Cumberland region, and publishes the blog www.Nickajack-Naturalist.com. The opinions expressed in this column belong solely to the author, not Nooga.com or its employees.



A group from the Association of Southeastern Biologists gets a look at the Blue Spring. (Photo: Bob Butters)



No Lure, Hellbender Found in North Alabama

By DAVID RAINER

Photos by Jim Godwin

Alabama Department of Conservation and
Natural Resources

When the Alabama Wildlife and Freshwater Fisheries (WFF) Division announced recently that one of the Nongame Section's programs had discovered a hellbender, I admit I was a bit puzzled about why there was so much buzz about a vintage fishing lure.

The Heddon lure with double treble hooks had a prominent place in my late father's tackle box, so that was my experience with a Hellbender.

"I've still got some Hellbender fishing lures," said Mark Sasser, head of WFF's Nongame Section. "I remember when I was in college, which was a long time ago, there was a 12-pound bass mounted in one of the displays at Auburn that said it was caught on a Hellbender lure in Lake Martin in the '60s."

This recent discovery of another kind of hellbender, however, had nothing to do with fishing lures. Turns out there's an odd-looking critter in the salamander family that inhabits rocky streams throughout the Eastern U.S., with northern Alabama and northeastern Mississippi at the southern end of the range.

What's important about the discovery of the hellbender recently is that WFF officials thought the oversized salamander had disappeared from Alabama waters. Plus, the presence of hellbenders is an indicator of the water quality in these streams.

"Hellbenders were fairly common in north Alabama at one time, but with habitat degradation, we thought they were extirpated in the state," Sasser said. "They have always been pretty much located along the Tennessee River drainages. They like large, clear streams with rock bottoms."

Sasser said the main threat to hellbenders and other amphibians is the alteration of riparian zones and streams. A lot of the streams become silted in from logging operations, agriculture, mining and urban sprawl. Stream channelization, which was detrimental to the hellbender, thankfully has been curtailed, but activities like clear-cutting tracts of timber adjacent to riparian areas and cattle wading in streams increase sediments in the water and negatively impact certain amphibians.

"Not a lot of work has been done on hellbenders," Sasser said. "The presence of hellbenders is basically an indicator of your water quality, a lot like the mussels we're studying. If they don't exist, then there's a reason. And it's not a good reason."

“We’ve never conducted a lot of studies on hellbenders in Alabama. Auburn requested funding for it, and Wildlife and Freshwater Fisheries, as well as the U.S. Fish and Wildlife Service, felt like it was important to study the amphibians.”

WFF provided research money through its Endangered Species allocation, which provides funds to study rare species in Alabama, for Auburn University to begin a quest to find hellbenders in the state.

The research was headed by James (Jim) Godwin of the University Museum of Natural History at Auburn. Godwin brought in collaborator Lesley de Souza to perform DNA studies in those streams to try to detect the presence of hellbenders.



“Back in the ’60s and ’70s, people weren’t looking intensively for hellbenders, but they could be found in relatively good numbers,” Godwin said. “We have records that people would go out in a day or less and find five or six of them. After the ’70s, there was not that much interest in the hellbender. Reports would pop up here and there from the ’70s on.”

Although fishermen would occasionally snag one of the huge salamanders, the hellbender basically disappeared from the conservation conversation until the turn of the century.

“In the late ’90s and early 2000s, there was a little more interest in finding hellbenders in the state, but no one was finding any,” Godwin said. “There was the thought that maybe they were gone, extirpated. Then, every once in a while, someone would report one. Fisheries biologists in Elk River caught one in 1997. Then someone on the upper Flint River caught one in 1999 and took photos of it.

“Then in March of 2014, a fisheries biologist encountered a hellbender in Cypress Creek, and he photographed it. That created more interest in doing more research work on the animal.”

Godwin and crew started searching for the slimy salamanders in the usual Tennessee River drainages and were coming up empty. Godwin said what is known about the hellbender is it feeds on crayfish, other salamanders in streams, small fish and large insect larvae. They live on the bottoms in runs in streams where there is good flow, under large rocks with gravelly substrates.

Thomas Floyd of the Georgia Department of Natural Resources was lending an expert hand when the crew floated around a bend in Flint River. Floyd spotted a likely hellbender hangout, turned over a big rock and there it was.

The significance of our finding is we did catch one,” Godwin said. “Because of a lack of records, we handled the animal, measured it, sexed it and placed a PIT (Passive Integrated Transponder) tag in it so if we recapture it later we know it is an individual we encountered earlier. We collected some tissue for a DNA analysis.



“It’s important that we study the hellbender because it is believed that the decline in numbers is because of degraded water quality in these streams. The presence of these animals, like the freshwater mussels, is an indication that our water quality has been restored.”

While hellbenders can reach 29 inches in length, the one captured by Godwin and crew measured 49 centimeters, a little more than 19 inches.

“It was a female but did not have any eggs,” Godwin said. “It may have already laid its eggs or simply didn’t produce any. Those are the questions that need to be answered. We’ve got another year of funding, so we’ll go to

the streams we did not survey. We’ll survey those next year. We want to go back to the streams we worked this year and repeat those surveys.

Godwin said the survey includes collecting water samples for DNA analysis. Dr. de Souza will oversee the lab work on what is called environmental DNA. The collected water samples are filtered and then the DNA is extracted.

“It’s being done in other places on the hellbender,” he said. “The important thing that has come out of that is the environmental DNA work often indicates the presence of hellbenders in streams when we’ve not been able to find them by looking under rocks.

“We will be analyzing those samples later this year, and what we hope is we will detect hellbenders in some of these streams where we actually didn’t catch any.”



SCCi Partners with Georgia-Alabama Land Trust to Create New Cave Preserve



The Georgia-Alabama Land Trust (GALT) and Southeastern Cave Conservancy, Inc. (SCCi) are partnering to create the largest cave preserve in Georgia. The Charles B. Henson Cave Preserve at Rising Fawn will include approximately 1,300 acres of land that has been acquired by Georgia-Alabama Land Trust over a three year period in the failed subdivision known as the Preserve at Rising Fawn in Dade County. The “Preserve” is located in the unique and threatened landscape of Johnson’s Crook, a deep horseshoe-shaped cove with high bluffs in the Lookout Mountain ridge.

Many of the slopes of Johnson’s Crook are underlain by limestone bedrock, in which more than 30 known caves have formed. These caves are important habitat for many types of cave-dwelling species, and also have in the past been popular among recreational caving enthusiasts for their varied challenges and remarkable beauty.

According to GALT Executive Director Katherine Eddins, “Partnering with SCCi is a natural fit for this property given its extensive cave system.”

Ron Miller, SCCi Chair, adds: “We are very excited to work with GALT in managing one of Georgia’s most significant cave areas. We are also honored that this cave preserve is being named in memory of longtime SCCi member and benefactor Chuck Henson. Johnson’s Crook and its many caves held a special place in Chuck’s heart, and he worked tirelessly in the last years of his life to save this exceptional landscape. “

The Georgia-Alabama Land Trust, accredited by the Land Trust Accreditation Commission, is a 501(c)(3) nonprofit, founded in 1994 by conservation-minded individuals in response to rapid development and encroachment of natural areas, farms and woodlands. It is now the largest private lands conservation organization in the Southeast, protecting over 268,000 acres of land with 775 voluntary conservation easements.

The Southeastern Cave Conservancy, Inc. (SCCi) is a 501(c) (3) nonprofit organization founded in 1991 that protects cave and karst resources in the southeastern U.S. through management, conservation and education. The largest nonprofit in the U.S. dedicated to cave conservation, SCCi owns and/or manages 30 preserves containing over 140 caves in six southeastern states.

For more information, visit <http://www.scci.org/preserves/johnsons-crook-cave/>

Preserve Information:

Acreage: 1,300+ in Dade County

Property Management Committee: Patty Springer (Chair), Peter and Jane Morgan and Marty Abercrombie (johnsonscrook@scci.org)

Access: Permit required. Up to three permits allowed per day. 6 person group size limit.



Help TennGreen conserve the caves, bluffs and forests of Bear Den and Brady Mountains. Protect Grassy Cove National Natural Landmark, Cumberland Trail views and Sequatchie River headwaters.

This land is at risk and we need your help to preserve this natural treasure.

Known conservationist and Nashvillian Shirley Caldwell-Patterson is donating \$100,000 to match your gift! We need your help to raise \$2.2 million for Grassy Cove Creek Corridor.

<http://www.tenngreen.org/website/2015/10/06/save-grassy-cove/>

In 2001, County Mayor Brock Hill, Cookeville Mayor Charles Womack and leaders from TennGreen with lots of donations from the communities near and far conserved 518 acres of Black Mountain. In 2006, at TennGreen's request, in honor of Arthur Harrison and his good friend, one of the Cumberland trail founders Nashvillian Bob Brown, Plateau Properties donated 352 acres along the tall spine of Brady Mountain for the Cumberland Trail, it included historic Salt Peter Cave and views overlooking from and to Grassy Cove. Its long profile is the backdrop for most of the Cove. We are humbled and grateful by the company's generosity. A natural treasure conserved for Tennessee, as a gift for future generations. In 2007, TennGreen successfully protected 385 acres at Devilstep Hollow Cave and Head of Sequatchie Spring...



Now it is time for the mountains in the south end of the Cove.

Climb a thousand feet, up the face of the Cumberland Plateau and discover that on top of the plateau, rising another 1500' stand the Cumberland Mountains. You've seen them and millions of travelers have seen them too. South of I-40. Only 75 miles from Knoxville, 120 miles from Nashville, and 90 miles North from Chattanooga, near Crossville in Cumberland County.

Now go to the mountains and discover the hidden Cove, tucked amongst mountains that steeply rise to 3000'.

The names beckon and you'll want to exit at Crab Orchard where the Justin P. Wilson Cumberland Trailhead sign points south...to Black Mountain, Brady Mountain, Bear Den, and Dorton's Knob.



Drive the 10 minutes off the interstate, up the windy road to Black Mountain. Perhaps a different day...like so many others...you too may decide to go for the long walk. You'll Strap on a backpack and head in either direction for a 100-mile hike on the 300-mile long Cumberland Trail, for you stand at its midpoint, running from Cumberland Gap at the Virginia border to Chattanooga, near the Georgia line. Black Mountain is the perfect long-distance hiker's destination or beginning point. Some 3½ miles of the trail traverse Black Mountain.

A dramatic landscape of bluffs and wildflowers and ruins. Climb around the stone chimney that once was the centerpiece of the home of A.C. and Ella Eaton Gill. Pause at the rock spring house as you imagine Dr. Gill, a Cornell University Botany Professor, stooping to examine flowers like Pip Sissy Wa, or Yellow Trillium on his daily trek to gather water. Venture to the woods where other delights await you. Slide between the towering boulders to discover Cinnamon Fern, Royal Fern, Flame Azalea, or Blood root. Tread quietly as you explore so as not to disturb the concentration of one of the many rock climbers you're almost guaranteed to see scaling the sheer rock face to the precipice toward which you head. Then climb on the bluffs, they're all around you. They were here 150 million years before man appeared on the earth. These bluffs are humbling. They dwarf you when you stand underneath but raise you to the heavens when you scramble up the short incline to the bluff tops.

Now look south. There below you ... the pastoral, grassy valley. Grassy Cove.



The first European settlers of Grassy Cove were revolutionary war veterans, About 1801, John Ford viewed Grassy Cove from these very bluffs at Black Mountain and chose it for his homestead. After a covered wagon wrecked traveling down from Spencer's Hill, beyond present-day Crab Orchard...John scouted out a place to settle and spied the most beautiful Cove, Grassy then...with native prairie flowers and grasses, full of deer, elk, and buffalo that could provide for a community.

Grassy Cove.... where farmers still tend and descendants of Tennessee' earliest European settlers still live. Walk amongst the tombstones at the Grassy Cove Methodist Church and see still- familiar names where nine generations of the Ford family are buried and later settlers and their descendants ...the Kemmer's, the Brady's and the Wilson's. The Kemmers who live in Grassy Cove are descendants of Conrad Kemmer who came here in 1808. Stop at the Kemmer Stores and refuel and then head to the Community Center that once was the Grassy Cove Academy established by the Presbyterian Church. There the children in Grassy Cove could get a first class

education and study both Latin and Greek. Enjoy the peace where you stand and pause. Then consider that struggles occurred here too.

A marker at the Community Center documents the petrified confederate soldier, found in Salt Peter Cave, a source of gun powder during the civil war, where one soldier died. His grave was moved from the cemetery to an unknown location so that the regular hauntings or rumors of ghosts would cease. The Civil War struck even remote Grassy Cove ...where the community was divided like much of Tennessee between the Union and Confederacy and as a result, three murders occurred here.

People ventured here a thousand years before the revolutionary war and the later Civil War. Ancient Indian roads like the Cherokee Path and the Sequatchie Trail led Cherokee hunters around the base of Black and Brady Mountain.

Now, like all those people who came before...you stand in the Cove and are awe struck. Surrounded by green pastures, framed by steep mountains that rise more than 1400’.

Grassy Cove is a special place – in fact it is a National Natural Landmark. Only one of 13 designated landmarks in Tennessee and one of the few primarily privately owned and in need of conservation. The National Natural Landmarks Program recognizes and encourages the conservation of outstanding examples of our country’s natural history. Grassy Cove is designated as the biggest sink hole in North America at 8 miles long x 3 miles wide. Yes, a 24-square-mile sink hole created over millions of years as water and time eroded the sandstone mountain peaks and the limestone underneath to create a cave-riddled karst valley where water sinks.

As seas advanced and retreated more than 300 million years ago, marine sediments were continually deposited. About 200 million years ago, as the eastern continental shelf of North America pushed northwest, strata was contorted and uplifted resulting in the high mountains of the Blue Ridge. Pushing up old and deeper strata over younger strata until the 150-mile long fold, the Sequatchie Anticline pushed above it. Seepage through the ancient sandstone cap rock eventually dissolved the underlying limestone and collapsed the cap rock forming the Sequatchie Valley and the karst valley that is Grassy Cove. Grassy Cove will one day be part of the Sequatchie Valley – it’ll just take a little time, a few million years or so. The bluffs on the mountaintops bear witness and still bear the ripples of the retreating sea with sea creature fossils left behind.

For the present, Grassy Cove looks much like it did 200 or more years ago, a few farmhouses and barns, a church, and a store in the greenest, grassiest, most scenic cove this side of Cades Cove in the Smokies.

This is Grassy Cove and the heart of the Cumberlands!

Now consider that it’s a sink hole. Rainwater falling down these steep mountains that surround you flows to the north end of the Cove in Grassy Cove Creek to the base of Brady Mountain. Some of the water collects in streambeds only to disappear in Caves on the slopes of the mountains. There is no river outlet from this green valley to which the creek and rainfall flows. The water sinks...Only to emerge two days later, South of the Cove, 900’ below Grassy Cove, beyond Dorton’s Knob, there in the distance.

Peer beyond Dorton’s Knob. See the Sequatchie River Valley.

Go there. Paddle upstream...up the Sequatchie River – where the canyon walls close in. Where the game is rich and the water’s pure, teeming with life. Where the air is sheltered from the colder north winds. Go to Devilstep Hollow Cave and Head of Sequatchie Spring. Where peoples have travelled for millennia. Go to the River’s source...where this valley begins. For this is holy ground. Here is the where the water springs, gushing forth and then down the 150 mile-long trough that is the Sequatchie Valley behind you. Stoop for a drink of water and then go to the ceremonial cave, there... a 5-minute walk across the valley, where the hill rises. And see. The blue-green waters, the massive cave opening that beckons. There shaman a thousand years ago, with only torches to



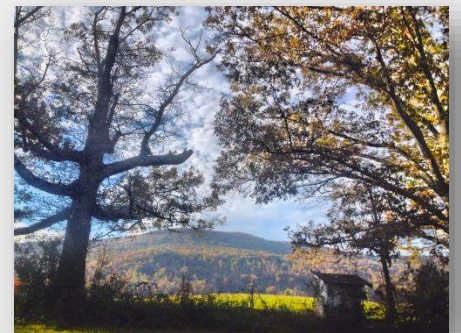
illuminate the pitch black, belly-crawled...grunting, with head down, pulling themselves through the passage only about 18 inches tall...to a room where in ecstasy or gripping pain or altered reality...they left a message...that is still there for us to see.

An eagle being with a weeping eye, a warrior with beaded forelock, holding a severed head, a monolithic ax, a kangaroo-like animal, a lone toothy grin...like Alice's Cheshire Cat's smile...we know it is a symbol that here is a mass burial. The National Geographic Society studied this cave because it is unique, with three types of images on its wall ...encised, charcoal and . Now see on the floor there...the bare foot print of a

man, perhaps the footprint of the artist, who 1000 years ago ventured here for an ancient ceremony.

And you feel a presence too...as you leave the Cave, reborn, back to the light, to the abundant, verdant green of a beautiful Tennessee forest. Where more species of trees live than throughout all of Europe and so many, wildflowers, ferns, and creatures of all varieties thrive in water rich Tennessee. What beauty for contemplation...what bounty for our use.

At the October Sewanee Mountain Grotto Meeting, a motion was made and passed to donate \$250 towards the land purchase of 1,000 acres in Grassy Cove by the Tennessee Parks & Greenways Foundation. Several grotto members, including Kelly Smallwood, Anne Grindle, Bambi Dunlap and Mike Furry, along with a few other cavers: Cheryl Pratt & Chuck Sutherland, attended the Save Grassy Cove Pot Luck & Kick-Off Celebration on Friday October 23, 2015. During this event, Chuck took folks along a hike to Waterfall Cave where we also saw a huge Timber Rattlesnake. Later there were a few announcements and Anne Grindle presented TennGreen with the \$250 check from the grotto. TennGreen is working to raise \$2.2 million for this purchase of land. Over \$760,000 as already been committed and they are pursuing a federal grant of \$1.35 million.





Louisville Salt Cave: Kentucky's first therapeutic salt cave opens on Shelbyville Road

By Melissa Chipman, published on
www.insiderlouisville.com

Louisville Salt Cave

Best friends since their days at South Oldham High School, Nicole Bartlett and Kim Rash have been talking about building a salt cave in Louisville ever since Rash, a massage therapist and aroma therapist, visited one in Asheville, N.C. Louisville Salt Cave has now been open just over three weeks.

The cave is located in a strip mall on Shelbyville Road near Hurstbourne. The waiting and reception area is clean and simple with a small retail section and accents of rough wood made from fallen trees from Rash's family farm.

The cave is behind a thick wooden door and is filled with five tons of Himalayan pink salt. The floor is covered in inches of ground salt, the walls are lined with bricks of pink salt. For good measure, there is a halo generator installed that senses the salt levels and adds pharmaceutical-grade sodium chloride to the air when there isn't enough.

Lights behind some of the bricks make them glow, and the ceiling — it really does look like the inside of a cave — is dotted with fiber-optic twinkle lights.

Salt therapy is said to alleviate anxiety, stress and snoring, along with assorted respiratory conditions such as bronchitis, allergies and colds.

Dr. Margaret Smiechowski, the cave builder, is North America's foremost expert on Himalayan salt. She works out of Vermont but is originally from Poland. It was in her country of origin that researchers first stumbled on the health benefits of salt air. Polish salt miners turned out to have much better respiratory health than most people.

Six people at a time can enter the cave and recline on zero-gravity lounge chairs for 45 minutes at a time. There is a session every hour on the hour when the cave is open.

"Can I read, at least?" I asked Rash as I prepared to enter. She told me it was too dark to read in the cave and that most people are surprised when their 45 minutes are up. Time flies when you're breathing salt, I guess.

But I'm kind of notorious for my inability to relax and be quiet. I suffer from insomnia, and when I wake up in the middle of the night, my mind runs so badly, I have to get up and try to turn it off with television. I stopped getting massages because that amount of quiet time leaves me more stressed out than the massage can relieve.

I tried. I tried so hard to take full advantage of the opportunity. I tried to make my mind blank. I tried focusing on the ambient music and twinkling lights. I tried closing my eyes and breathing "intentionally." I tried a friend's tip: mindfully saying "goodnight" to each of my toes.

But I'm clearly an outlier. My fellow cave dweller, who was back for her second time, fell asleep instantly and then again another time. (After the session, she apologized profusely for snoring.) I would have loved to have used the time for a quick nap.

However, I did manage to leave relaxed, despite my unstill mind. I realized that while I had not reached a meditative state, I'd managed to go 45 minutes without going to dark or stressful places. Is this because *halotherapy*, which it is referred to, reduces anxiety and stress?

And the zero-gravity chairs were amazingly comfortable, especially once Rash tucked me in under a heavy blanket. It's too bad the chairs are so ugly; I'd love to have one in my house. Rash calls them "fancy lawn chairs."

In the service of journalism, as I drove down Shelbyville Road, I licked myself in several places and did not detect any traces of salt on my skin.

It's hard to tell if it helped my allergies or if it even could in a single session. Rash said one woman came two days in a row because she had so much relief on the first day.

Soon, Rash and Bartlett will be hosting yoga and acupuncture sessions in the salt cave. They also have a practitioner who will do sound healing with Tibetan bowls. On Saturdays, they have a kids' play session where the little ones can play in the salt like a sandbox while a parent relaxes or plays along. The youngest visitor so far has been a 10-month-old.

Tips for the salt cave:

1. Wear socks, otherwise you have to wear booties that make you look silly.
2. You will get cold sitting still for so long; do not turn down the blanket.
3. I saw on the website that having a "guided meditation" session — a recording that talks you through relaxing — is an option. If you have a messy mind like I do, choose that.
4. Drink water before and after.
5. Go to the bathroom before your session.
6. The green chairs recline further than the red chairs.



Salt Caves in Tennessee: For those who are interested - Serenity Salt Cave has two locations in Tennessee. One in Nolensville, which is south of Nashville and one in Murfreesboro.



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6001 Pulaski Pike
Huntsville, AL 35810
nss@caves.org | www.caves.org
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September 29, 2015

Sewanee Mountain Grotto IO# 379
c/o Blaine Brindle
900 Old Sewanee Rd
Sewanee, TN 37375-6032

Dear SMG Members,

On behalf of the Board of Governors of the National Speleological Society, thank you for your contribution of \$2000.00 to the Headquarters Fund of the National Speleological Society. We appreciate your support.

Because this letter serves as our official acknowledgment of your donation, you should keep this letter with your income tax records for the year. (You should not attach it to your return.) The Society did not provide you with any goods or services in exchange for your gift. Please consult with your tax return preparer for specific information.

Thank you for your generosity. Enclosed you will find a donation form to pass along to a friend.

Sincerely,

Wm Shrewsbury, President
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