

# TAGGAVER

The background of the cover is a photograph of a cave interior. A large, textured, yellowish-brown rock column stands prominently in the center-left. To the right, a person wearing a red shirt, khaki pants, a red helmet, and a backpack is standing on a rocky floor, looking towards the right. The cave walls and ceiling are rugged and uneven, with some stalactites visible on the left. The lighting is dramatic, with bright spots on the floor and the column, and deep shadows in the recesses of the cave.

Sewanee Mountain Grotto  
Volume 6 Issue 2



## TAG Caver ~ Volume 6 Issue 2

**Summer 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](mailto: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: Ben Miller  
Webmaster: Tina O'Hailey

### TAG Caver Editors:

Kelly Smallwood  
[Rowland7840@bellsouth.net](mailto:Rowland7840@bellsouth.net)  
Jason Hardy  
[wmjhardy@yahoo.com](mailto:wmjhardy@yahoo.com)

Email articles and photos for submissions to one of our editors. Content may include articles/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.



Coons Labyrinth 3  
2015 NSS  
Convention 5  
Sinkhole Map 6  
Buggy Top Hike 7  
Battle Creek  
Paddle 9

Tiankeng 11  
Rechargeable  
Batteries 13

### Front & Back Covers

Front Cover: Jason Lavender in Railroad Cave during the 2015 NSS Convention in Missouri.

Back Cover: Hali Steinman in Railroad Cave during the 2015 NSS Convention in Missouri.

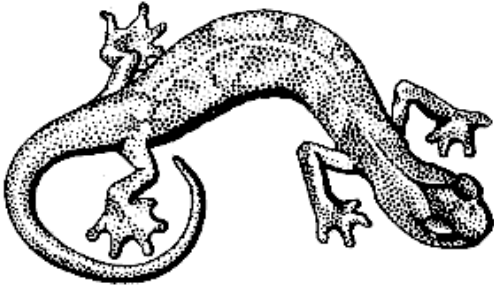
Both photos by Kelly Smallwood

# Calendar of Upcoming Events

\*All times are CENTRAL\*

**August 8, 2018 – Clean up in Montague Cave.** Join the Sewanee Mountain Grotto for a cleanup in Montague Cave. Montague Cave is located behind the home of Andy Zellner (2859 CR 98, Bridgeport, AL). The cleanup will begin at Noon Central. Bring a helmet, light and gloves.

**August 8, 2015 – Sewanee Mountain Grotto Meeting** at the home of Andy Zellner. Address is 2859 County Road 98, Bridgeport, Alabama. Potluck dinner starts at 6pm cst, followed by the business at 7pm. Following the meeting Andy will give a presentation of his caving adventures in Cyprus and France. Parking is limited so please CAR POOL! Make sure to bring a camp chair and a head lamp as the meeting will occur in the cave behind Andy's house!



**September 4-7, 2015 – Sewanee Mountain Cave Fest!** This is our yearly fundraising event. Registraton opens at Noon on Friday 09/04. Make sure to bring an item to donate to the auction and a dish for the potluck. Potluck and Auction are on SATURDAY Night. There will be a Bat Float on Sunday and led caving trips each day. For more information please join the event page on Facebook at <https://www.facebook.com/groups/1421893758065353/>

**September 12, 2015 – Sewanee Mountain Grotto Meeting** at the property of Jason Hardy and Kelly Smallwood on South Pittsburg Mountain. Potluck begins at 6pm cst, followed by the business at 7pm. The presentation will be CAVE LIES told around the campfire following the meeting. The day of the meeting Kely will lead a hike into the cove below the property to a few nearby vertical caves. Bring vertical gear or just come along for the hike.

**September 26, 2015 – Tennessee Cave Survey Fall Business Meeting.** The spring meeting will be at Johnson Hall at Tennessee Tech University. Doors open at 8am cst and meeting begins at 9am.

**October 8-11, 2015 – 38<sup>th</sup> Annual TAG FALL CAVE IN.** Pre registration is OPEN. Discount ends 09/01. To pre register online or to print a paper form go to: <http://tagfallcavein.org/>.

## 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.



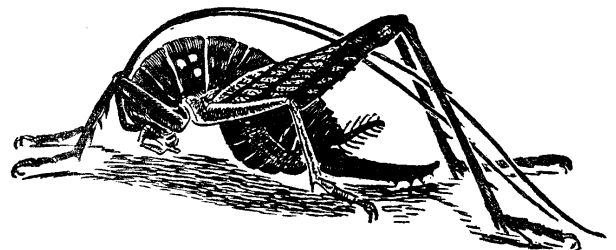
Sewanee Mountain Remailer: After you have joined the grotto, join our mailing list to keep up to date with cave trips and meetings. Go to: [http://sports.groups.yahoo.com/group/sewanee\\_mountain\\_grotto](http://sports.groups.yahoo.com/group/sewanee_mountain_grotto) and click join. Please provide your 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 3" patches for \$5 and KOOZIES for \$1. Both items have our grotto logo on them. Please contact Kelly Smallwood at rowland7840@bellsouth.net to purchase.







# THE TAG SCOOP

**\*\*2015 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 National Speleological Society recently updated their brochure *Fragile Underground*. It features a photo by Jim Loftin and another by Kelly Smallwood. To download NSS Brochures, go to: <http://caves.org/brochure/>



**Bats Need Friends**  
Animals that make their homes in caves, but return to the surface to feed—including bats, raccoons, swallows, bears, moths, packrats, snakes, and foxes—are troglodytes. Among these, bats play an important role in the balance of nature. Most North American bats eat insects, and a single small bat can eat 1,200 mosquito-sized insects an hour. Other bats feed on fruit and nectar, pollinating flowers and dispersing seeds. Underground, bat droppings often are the foundation of a cave's food web.



Unfortunately, more than half of American bat species are in severe decline or endangered. This is due to pesticides and land development severely reducing their food supply, and to a fungal disease called white-nose syndrome (WNS), which has killed of millions of bats since 2006. Moreover, cave habitats are being destroyed and cave entrances closed, and people are disrupting bat nurseries and hibernating colonies. Worst of all, people who fear or misunderstand the value of bats are deliberately killing them.

## You Can Help Protect the Fragile Underground

- Stay out of caves where bats hibernate in the winter.
- Do not disturb or touch bats you find in caves, or anywhere else.
- Learn about WNS and follow prescribed protocols. Visit [caves.org](http://caves.org).
- Keep sinkholes free of garbage, sewage, oil, and other contaminants. Keep streams in karst areas clean.
- Do not damage formations, and do not deface or write on the cave walls. Oppose the sale of cave formations.
- Report vandalism and unauthorized entry to proper authorities. The NSS offers a reward for information leading to the successful prosecution of cave vandals.
- Respect cave-dwelling animals, and leave their habitats undamaged.
- Leave nothing but footprints in the cave, and stay on established paths.
- Play an important role in conservation and education by donating to the NSS Save the Caves Fund or a cave conservancy in your state.

## Cave Safely

Venture safely underground by visiting a "show" cave developed privately or by the National Park Service. Only enter undeveloped, "wild" caves with experienced cavers, and with the proper training and equipment. Join a chapter ("grotto") of the NSS to learn to cave responsibly.

## Find Out More

### Suggested Reading

*Living with Karst*  
by George Veni, Harvey DuChene, Nicholas Crawford, et. al.  
American Geological Institute

*A Guide to Responsible Caving*  
(available at no cost through the NSS Web site.)

Visit [www.NSSBookstore.org](http://www.NSSBookstore.org)  
for the largest selection of books on caves.

### On the Internet

The National Speleological Society (NSS)  
[www.caves.org](http://www.caves.org)

The National Caves Association  
[www.cavern.com](http://www.cavern.com)

Bat Conservation International (BCI)  
[www.batcon.org](http://www.batcon.org)

National Park Service Cave and Karst Program  
[www.nature.nps.gov/geology/caves/education.cfm](http://www.nature.nps.gov/geology/caves/education.cfm)



The National Speleological Society (NSS) is the largest organization in the world dedicated to exploring, studying, and protecting caves. The Save the Caves Fund, supported solely through donations, provides essential funding for cave conservation and restoration, karst resource management training, and educational programs. For more information visit the NSS Web site or contact the NSS office.

National Speleological Society  
8001 Putnam Pike  
Huntsville, Alabama 35810  
Telephone: 256-852-1300  
[nss@caves.org](mailto:nss@caves.org) | [www.caves.org](http://www.caves.org)

Brochure designed by NSS Conservation Committee members  
Mike Dale and Cheryl Jones, May 2015

## Discovering Caves Fragile Underground



Photo by Jim Loftin

Photo by Kelly Smallwood



To learn more and join, visit [www.caves.org](http://www.caves.org).

[www.caves.org](http://www.caves.org)



# Coons Labyrinth

By Nancy Lilly

On a south facing peninsula of the Cumberland Plateau a unique cave named Coons Labyrinth (for reasons soon to be explained) was mapped as a senior research project by Nancy Lilly. This project could not have been accomplished without the extensive number of grueling hours logged by fellow members of the Sewanee Mountain Grotto; Hali Steinmann, Jason Hardy (helping teach Nancy with Cartography), Kelly Smallwood (instruments), Kristine Ebrey (instruments), Anne Grindle (instruments) as well as help from the fellow students of Sewanee: Peter Davis, and Lorna Harkey. The cave is an anomaly for many reasons, the most astonishing being its altitude; around 1800 ft. Formed on an unconformity between the Pennsylvanian aged Sandstone and the Mississippian aged limestone which is usually overlain with the Mississippian-aged Raccoon Mountain Formation (the Raccoon Mountain is not present at this location, the cave is a deformity in the rock which marks the transition of 40 million years. Sandstone cobbles in the breakdown of the ceiling remind visitors of the proximity to the surface of the plateau while roots growing from both the ceiling and the floor are reminiscent of a shallow sink-hole in soil rather than a rock layer. Travel through the cave is restricted to hunching and crawling. The maze-like passageways are created by joint-controlled dissolution with water leaking through joints in the overlying sandstone.

Biologically the cave is crawling with tens of species, most notably the cave's namesake a Raccoon (*Procyon lotor*). Hali Steinmann conducted a biological to accompany the cartographic survey. Although surveyors never saw a live raccoon, evidence for its presence including scat and tracks was newly discovered on almost every one of the 11 visits to the cave. Guano, presumably of raccoon origin provided the most easily observable source of energy within the cave and decomposition was noted on the weekly visits. In total 30 individual species were identified within the cave. Notable species included pseudoscorpions (*H. miribilis*), beetles (*Ptomophagus* and *Pseudanophthalmus*), and slimy and cave salamanders (*Plethodon glutnosus* and *Eurycea lucifuga*). Coons Labyrinth is also home to the Allegheny woodrat who made an entertaining companion during a few survey trips. A final strange feature of the cave were "hollows" in the floor which looked like some kind of animal bed. Jason Hardy swears they are bear marks but research is necessary to confirm this. It is also possible these hollows were created by water undercutting the floor sediments. Despite being 2415.6 ft. long the cave is relatively small with a shallow creek running through it. The survey itself took a noticeable toll of the fragile ecosystem and visitation will be minimized in the future to prevent further impact.



**Left:** Nancy and Jason Hardy w/ Nancy's map at the 2015 NSS Convention.



**Right:** A very proud Jason Hardy w/ Nancy's map after she received a BLUE Ribbon.

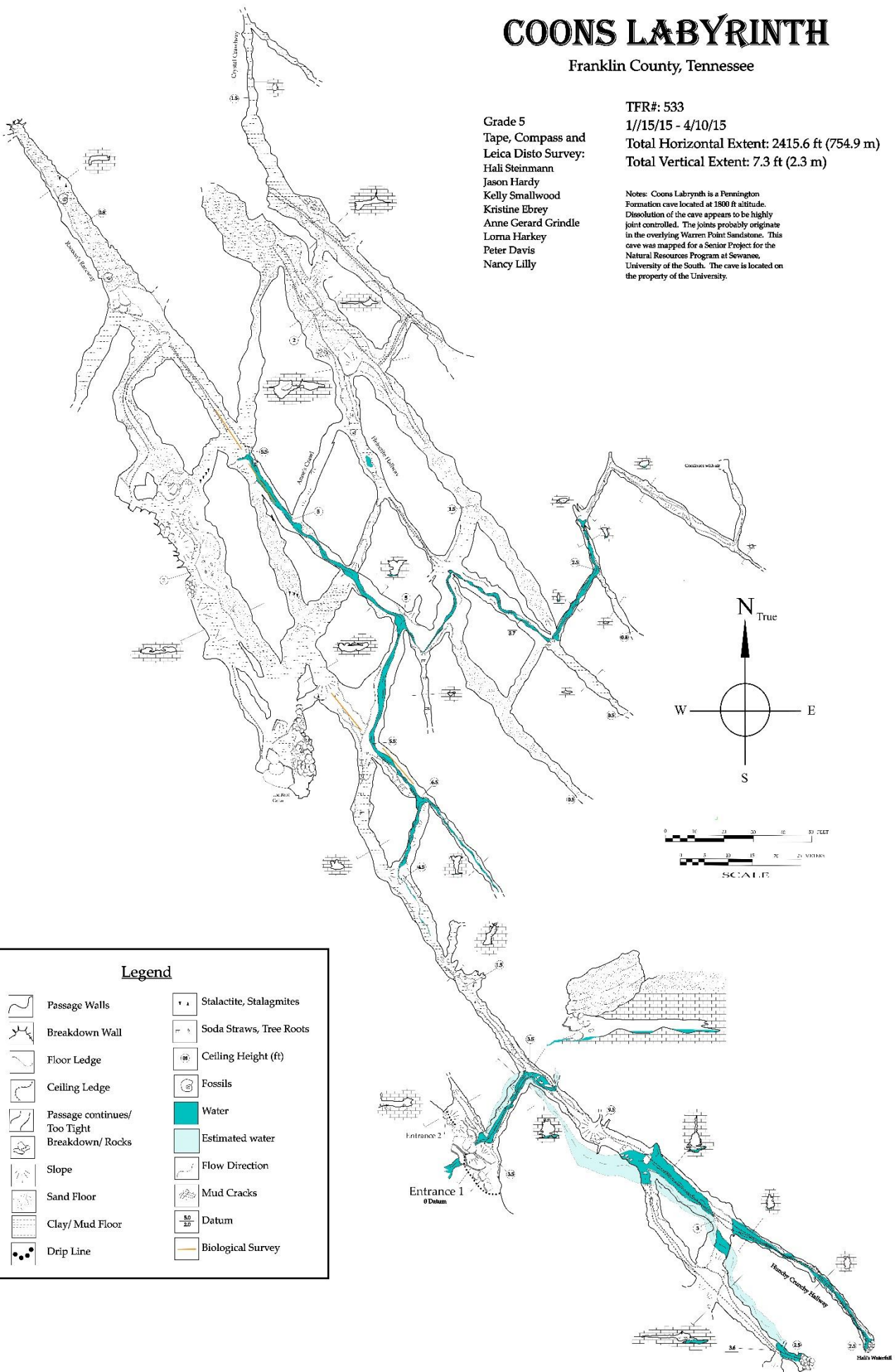
# COONS LABYRINTH

Franklin County, Tennessee

Grade 5  
Tape, Compass and  
Leica Disto Survey:  
Hali Steinmann  
Jason Hardy  
Kelly Smallwood  
Kristine Ebrey  
Anne Gerard Grindle  
Lorna Harkey  
Peter Davis  
Nancy Lilly

TFR#: 533  
1/15/15 - 4/10/15  
Total Horizontal Extent: 2415.6 ft (754.9 m)  
Total Vertical Extent: 7.3 ft (2.3 m)

Notes: Coons Labyrinth is a Pennsylvanian  
Formation cave located at 1900 ft altitude.  
Dissolution of the cave appears to be highly  
joint controlled. The joints probably originate  
in the overlying Warren Point Sandstone. This  
cave was mapped for a Senior Project for the  
Natural Resources Program at Sewanee,  
University of the South. The cave is located on  
the property of the University.

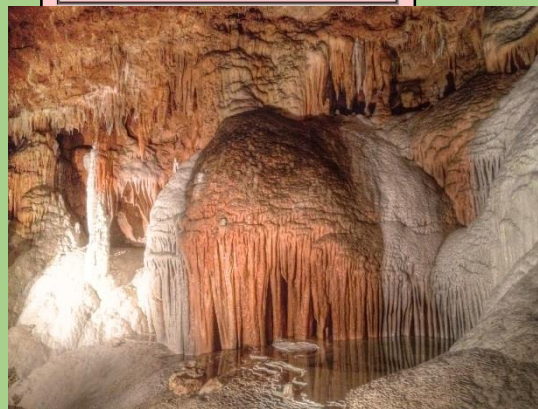
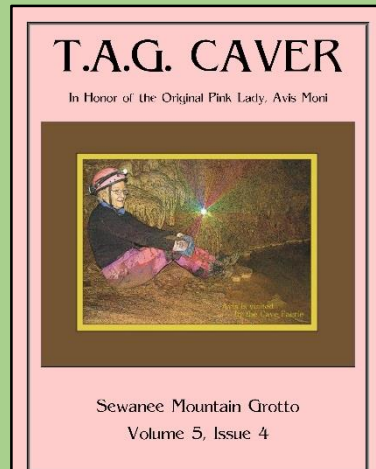
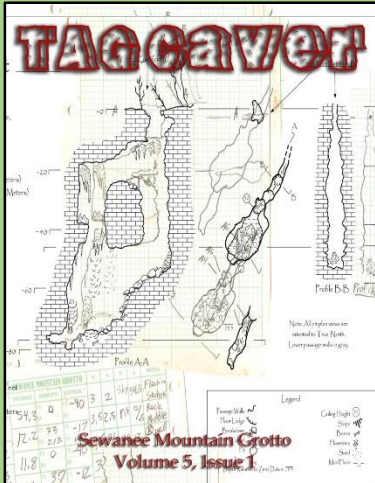




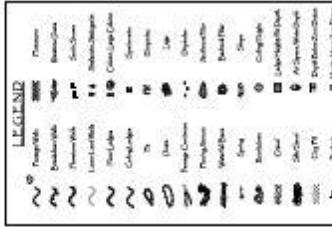
# Sewanee Mountain Grotto goes to the 2015 NSS Convention in Waynesville, Missouri

Our grotto newsletter won both a MERIT Award and an  
Honorable Mention in the Cover Salons!

Nancy Lilly won a MERIT Award for her  
very FIRST Cave Map! Not surprised  
though as she had a great teacher,  
Jason Hardy!





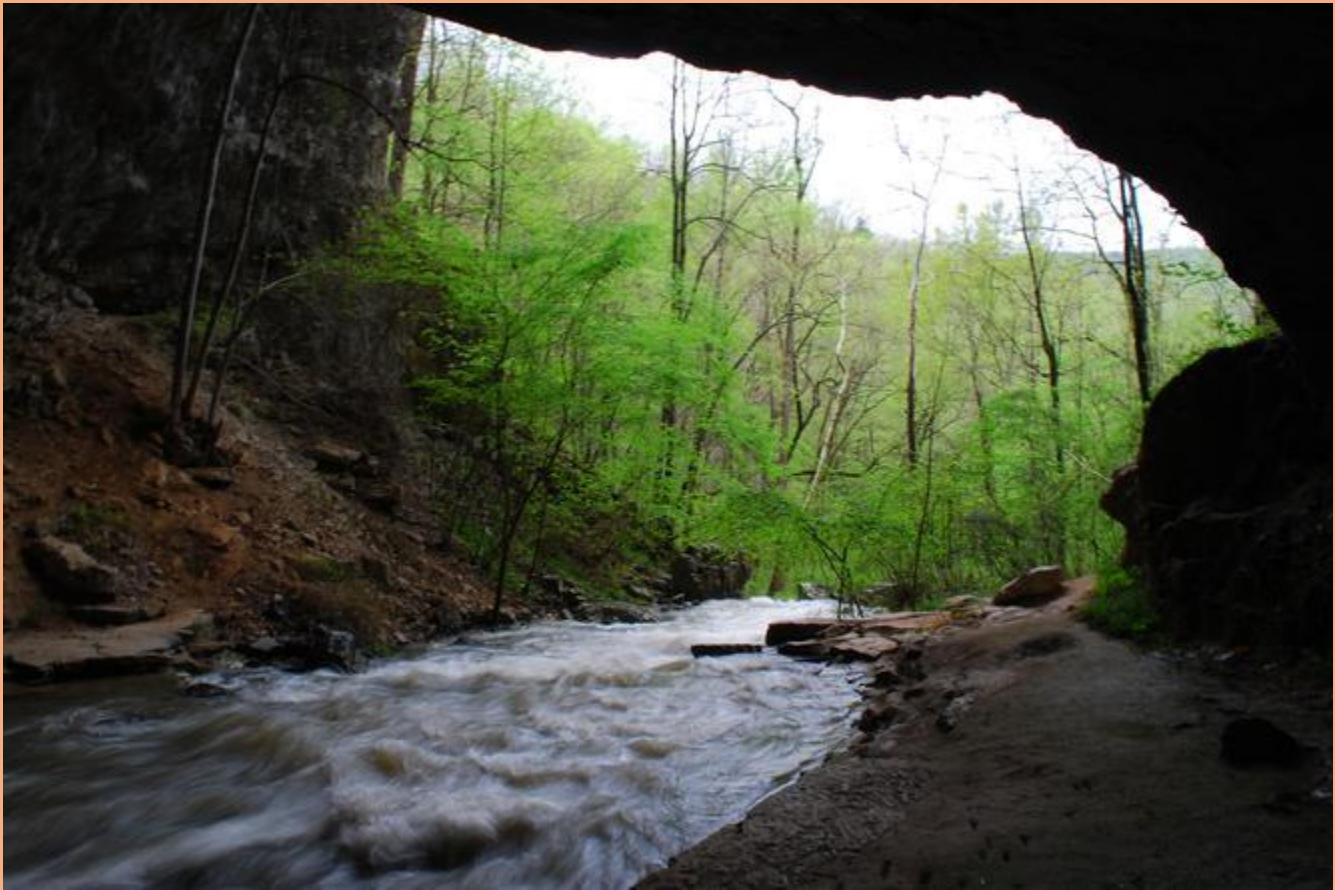
[illegible]

**Please Note: The Sinkhole is currently CLOSED due to past over visitation. Ben received special permission from the landowner to map the cave. Please respect landowner rights and choose one of the many other TAG Caves that are open.**



# Field Excursions: Hiking to Buggytop Cave

By [Bob Butters](#) - Published on April 19, 2015 <http://www.nickajack-naturalist.com/>



Crow Creek flows from the mouth of Buggytop Cave. (Photo: Bob Butters)

Lost Cove's Buggytop Cave is one of the geologic wonders of the South Cumberland region. I recently joined a small group led by South Cumberland State Park Ranger Park Greer for a 4-plus mile round-trip hike as part of the annual Trails & Trilliums Festival. Having experienced heavy rain just a few hours earlier, the trail was still quite wet—but our hardy group was undeterred.

The mountain forest was starting to green up nicely for spring. The trail initially climbs for a short distance to reach the top of Spur Ridge, which it follows for approximately three-fourths of a mile before gradually descending over 600 feet in elevation by the time it arrives at Buggytop Cave.

Along the way, a number of spring wildflowers were spotted, including wood trilliums, blue violets and wild blue phlox, among others. The trail passed cedar trees, which prefer the limestone that's so prevalent here, with their bark covered in resurrection ferns. The resurrection fern is an epiphyte, meaning it grows on other plants or structures but sustains itself with water and nutrients that collect on the surface of the host. Greer taught us how to identify the Kentucky flat millipede (with yellow markings) versus the Tennessee species (with orange markings), both of which were seen on this hike. He also pointed out that the reason we see so many dead locust trees in the forest is because it takes so long for them to decay once they die. This reminded me of growing up on a farm in Alabama and the fact that my grandfather liked to make fence posts from locust trees for this very reason.

In about 1.7 miles, the trail crosses the remains of the Old Lost Cove-Sherwood Road, then shortly arrives at a bluff overlooking Crow Creek Valley. The Buggytop Cave entrance is at the base of this bluff.

Officially, the cave is known as Lost Cove Cave, but most people refer to it as Buggytop, which technically is the name of the primary entrance (one of three). In addition, there's the Peter Cave entrance and a third unnamed entrance.





## Lost Cove

The cave is located within the 375-acre Carter State Natural Area, which is accessed from Highway 56 between Sewanee and Sherwood, and is a unit of the South Cumberland State Park. In recent years, the amount of protected land in the area has grown considerably. The University of the South, the Land Trust for Tennessee, Tennessee's Heritage Conservation Trust Fund and others have worked to conserve 3,000 acres of Lost Cove. This land, which joins Carter State Natural Area and the nearby Franklin State Forest, has been added to the university's domain, creating approximately 21,000 acres of contiguous protected forestland.

Lost Cove has a unique topography, with no aboveground drainage for its 18,000-acre watershed. Its primary stream, Lost Creek, disappears into the ground at a place called the Big Sink, re-emerging over a mile away inside Buggytop Cave as the beginning of Crow Creek.

## The cave

Although we didn't explore the cave on this hike, I have in the past, both on ranger-led trips and on my own. This is one of my favorite caves, and I recommend it to anyone wanting to get started in caving. Though it was closed to the public for a while because of the bat white-nose syndrome problem, it is now open again from May 1 to Nov. 1. A permit is required to explore it on your own. You can contact the South Cumberland State Park headquarters at 931-924-2980 for more details.

If I'm doing it on my own, I prefer to enter via the Peter Cave entrance and follow the creek out the Buggytop entrance, as it's easier to find my way through in this direction. Park rangers lead hikes through the cave on occasion, and if you haven't been there before, I recommend you go on one of these the first time.

From the bluff overlook, the Buggytop entrance is reached via a trail to the right, which soon makes a rather challenging descent along the base of the bluff. But if you're up for it, I think it's worth the effort. The overhanging curved bluff, towering 150 feet over the entrance, somewhat resembles the top of a buggy, thus the name. The cave entrance, measuring 80 feet high and 100 feet wide, is considered one of the most impressive in Tennessee. The cave goes back for approximately 2,200 feet.

Back up at the overlook, a trail to the left goes a short distance to the higher-elevation Peter Cave entrance, passing the third entrance that is rarely used by cavers along the way. Though currently an in-and-out hike, park staff and volunteers are working on building another trail route that would provide a 5-mile loop hike option.

## Directions

From I-24 at Monteagle, take exit 134, then follow U.S. Highway 41-A to Sewanee. Just past downtown Sewanee, take Highway 56 on the left (not 156, which you passed earlier) and follow it downhill for 6 or 7 miles. Look for a parking area on the left, marked by a sign for Carter State Natural Area.

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





# Paddling Battle Creek

By [Bob Butters](#) - Published on April 26, 2015  
<http://www.nickajack-naturalist.com/>

Paddling toward the Sequatchie Valley Railroad bridge on Battle Creek. (Photo: Bob Butters)

Now that spring is here, some of us may be getting out the canoe or kayak and looking for a good place for some flatwater paddling. One lesser-known option, a mere 35-minute drive from Chattanooga, is Marion County's Battle Creek.

As a tributary of Lake Guntersville, the creek's water level is regulated by Guntersville Dam, and except during periods of high—and thus faster-flowing—water, it can be paddled upstream for at least 7 miles.

The boat ramp at South Pittsburg's Municipal Park provides easy access to the mouth of Battle Creek. From the ramp, paddle upstream along the shore of the Tennessee River for a very short distance, passing a couple of barge tie-ups and an abandoned loading platform. The mouth of the creek will be on the left, marked by several imposing concrete towers. These are remains of a railroad that was being constructed between Chattanooga and Stevenson, Alabama, just over a hundred years ago. An accident killed three workers during the construction of the bridge here in 1907. Soon after, the railroad project was abandoned.



Shortly, the creek parallels Highway 72 for about three-quarters of a mile and passes under an active railroad bridge before meandering through three bends within a 145-acre TVA tract (which contains bottomland forests and wetlands). This is a great area to see wildlife. At one point, a gravel road that accesses the TVA land borders the creek on the right. This might be a good place to take a break and view the wetland areas across the road.

After approximately 2.25 miles, you'll pass under Highway 72 and will probably see many swallows darting about, as they nest under the bridges. On the right just before the bridge is an undeveloped fishing spot that provides an optional access point for paddling. It's reached via a short trail from a TVA parking area. Paddling upstream from here will shave 4.5 miles from your overall distance.

Just past Highway 72, Battle Creek parallels I-24 for about a mile in a straight channel created when the interstate was constructed over the creek's natural meanders. One of the drawbacks to this trip: If you're looking for peace and solitude, traffic noise is unavoidable in places like this. But if you can deal with that, it's a beautiful trip. You'll encounter the occasional motorboat, but they tend to be few and far between.

The straight stretch of Battle Creek alongside I-24. (Photo: Bob Butters)

After veering away from the interstate, a 95-acre tract of state-owned forestland between the creek and the interstate contains a couple of large beaver ponds.





From Highway 72, I've paddled upstream for 4 to 4.5 miles to the confluence with Sweden Creek. A short distance up Sweden Creek, it becomes pretty tough to navigate. I'm unsure exactly how far I've continued up Battle Creek from this point. Usually, a combination of time constraints and challenges of navigating through fallen trees gets me to decide it's time to start back.

### **Abundant wildlife**

You will certainly see a variety of wildlife on this trip. White-tailed deer, muskrats, turtles and gar are likely sightings. Wood ducks, great blue herons, kingfishers and ospreys are among the birds I've seen on the creek. Once, far upstream near my turnaround point, I spotted a nest of pileated woodpeckers high in a hollow tree on the bank.



### **Directions**

From exit 152 on I-24, take U.S. Highway 72 toward South Pittsburg. When the highway splits (left to Scottsboro or right to downtown South Pittsburg) go right, then take the first left. If you find yourself crossing the river on the big blue bridge, you've taken the second left. Turn left again (the only way you can go), then immediately right and into the park.

For the Highway 72 bridge access point: Just after starting toward South Pittsburg from exit 152, you'll cross Battle Creek. Immediately do a U-turn and cross back over the creek. Then, immediately turn right onto a gravel drive and down to a parking area. The launch site is down a short trail back toward the bridge.

On Google Maps, you can search for Battle Creek, South Pittsburg, Tennessee, or get directions to the South Pittsburg Municipal Park.

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



# Used as a rubbish dump: Incredible Chinese sinkhole to be transformed into tourist hotspot

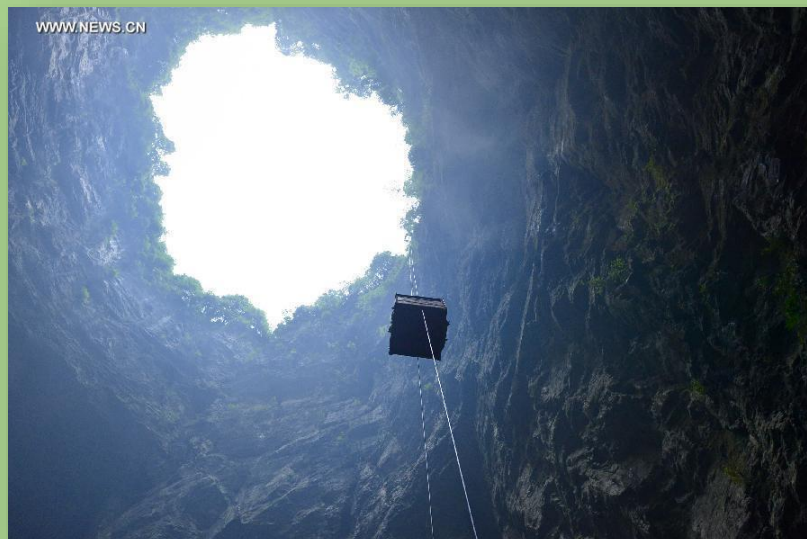
INCREDIBLE sinkhole of Tiankeng in China is set to become a tourist hub after the Chinese government decided to restore it to its natural state.

Published May 18, 2015 [www.express.co.uk](http://www.express.co.uk)



The sinkhole at Tiankeng

For more than 50 years, the sinkhole has been used as a refuse dump but since January workers are attempting to clear the rubbish in the 290 metre deep hole. These images show the staggering moment boxes of rubbish are lifted out of the hole in a bid to clean up after years of abuse. Local businesses are investing several million yuan on the rubbish clear up with the aim of restoring the ecological system in the Tiankeng. The hope is that experts will be able to develop it into an integrated scenic spot for expedition, leisure and geological sightseeing.









## Thoughts on Rechargeable Batteries and Chargers

### By Jeff Cody

In the past I have written several reviews on various cave and sport lights. All of these lights use some kind of rechargeable batteries so I felt it was time to write a few things I have learned on rechargeable batteries and chargers. There are many kinds of rechargeable batteries out there, some are way better than others. Same goes for chargers. As someone who has been caving for 34 years, I was around when rechargeable AA s first came out and they were nowhere near throw away alkaline in capacity. Now with all the emphasis on renewable energy and tons of private and government money pouring into new tech. the game has changed in a positive way for us consumers.

Cavers generally use two kinds of rechargeable batteries. NIMH AA s or AAA s or 18650 Lithium Ion generally found in more powerful “premium “ headlamps and flashlights. First, I will speak of what I know about NIMH. There are many brands of NIMH AA batteries on the market. They all work, but some work much better than others. As someone who has spent much time on online forums I have found that the preferred one is Sanyo Eneloop. The problem with Sanyo Eneloop is that they are only available here in Indianapolis at Costco which is on the far north side of town. Other than that you have to use one of many mail order outlets. I have found that Duracell uses some re branded Sanyo Eneloops. It used to be the ones with white around the positive contact and made in Japan. The lesser quality Duracell rechargeable are the ones made in China. The preferred Duracell could be found at several local retailers like CVS and Kroger. In the last year, Duracell has changed the labeling and as far as I can tell do not have any with white around the positive contact. Some are made in China and some in Japan. At this time I cannot verify the Japan ones are Sanyo but I will say there are only a handful of manufacturers that make NIMH, one manufacturer like Sanyo will make their own brand plus private label the same or very similar thing for others. This is true for many other products, not just batteries. The better batteries will last longer on a charge and have many more charge cycles. Good eneloops or similar will have over 1000 charge cycles. Lesser batteries will not last as long as advertised, especially if charged with a cheap charger. There may be other good brands out there, especially via online order. Many found locally are not near as good as Sanyo / Duracell.

As with NIMH AA there are several 18650 batteries. Unlike AA batteries, 18650 Lithium Ion batteries are hard to find locally. Here in Indianapolis, the only place I have found so far is some of the battery specialty retailers like Batteries Plus. The batteries they carry are of un known quality. Currently the only way to get any selection of these batteries is through one of many mail order retailers. My findings to date have shown that Panasonic makes the preferred 18650 battery. It is the Panasonic 18650 B. This battery is light green in color. There may be other similar quality out there from other manufacturers but this is the one that a few high end light manufacturers prefer to use at this time. I was able to easily find some on Amazon .com for around 10 dollars each plus shipping. 18650 batteries are shaped similar to a AA battery but are larger. These batteries are much higher capacity than AA s. Most high end cave specific lights like Scurion, Rude Nora , Pulsar, El Speleo will use multiple 18650 wired either parallel for 3.7 volt or series wired for 7.4 volt . These lights will have a proprietary pack with a specific connector such as a JST as opposed to drop in batteries like what is commonly found in AA lights. As of this writing I am starting to see a couple of premium light manufacturers that are using drop in 18650 batteries instead of a proprietary pack. This arrangement allows you to make your own choice of many 18650 batteries on the market currently. A couple things one will need to know about the use of 18650 batteries is that when using any device that has multiple drop in batteries is that it is important to use matched cells of equal capacity and all are charged at the same state. If not there is a chance of a fire especially if you are using un protected cells. That is one reason many premium light manufacturers will use a proprietary pack where all cells are charged at the same time. Another word of caution is it is more important to keep your 18650 cells dry than with AA s. Most premium cave lights have battery boxes that are watertight for this reason. Building a good watertight battery box is a challenge for light manufacturers. With current LED tech, if you want a 1000 lumen light you will need 18650 batteries. 500 Lumen is currently about as much as you will get out of a 4 AA set up. Many premium cave lights will give you an option of using a backup AA insert , these inserts are not really designed for high output setting, just enough to get you out of the cave if you run down your proprietary 18650 pack.

As far as chargers go, there are many choices with both NIMH AA or 18650. Some are better than others. The cheaper ones will charge the battery but may not charge the battery to its fullest state and / or overcharge the battery. This will not allow you to get the maximum # of charge / recharge cycles out of your batteries. Typically, the chargers you see at many major retailers that come with a group of NIMH AA batteries are not good smart chargers and can compromise batteries over time. If you want a good smart charger, you will likely need to buy one from a mail order retailer or from a hobby shop that deals in model airplanes. These chargers typically retail for around 40 dollars or more. I use a La Crosse BC 1000 charger for my AA s and AAA s and I also have a Fenix ARE C2 smart charger that will charge AA, AAA or 18650 and a few other types of batteries. These chargers will monitor the charge state of each battery and will not overcharge the battery. This allows maximum capacity and charge / recharge cycles of your batteries. There are other good chargers out there. Just do your homework and get on some online forums such as Facebook Electric Cave Lights or maybe Candlepower Forum and get opinions. Also, in closing I would like to say that like computer tech, Battery and LED tech changes rapidly. Expect superior new stuff to come on the scene each year.



