



THE SPELEOGRAPH

Lake Ozarks Grotto
Volume 57 Issue I
January-June 2025



Carroll Cave, Camden County Mo

The Speleograph, a bi-yearly publication, is created by the Lake Ozarks Grotto. All articles and other information is donated by cavers and individuals who have an interest in caving.

For more information please visit us on the web:

www.lakeozarksgrotto.com

Cave Trips of the Past

Back in 1986, the author of this article went on a cave trip with co-worker, Larry and his wife, Becky. Larry and I were in the same class at Iberia but didn't really get to know each other until we worked together at FASCO IND. in Eldon, MO.

Sometime in 1986, we visited Bat Cave and Tunnel Cave near Crocker, MO. Larry's wife, Becky, had grown up around Crocker and knew the area and a lot of people, so finding the landowners and getting permission was easy.

I expressed interest in finding Railroad Cave and getting permission to enter. Becky knew exactly where the owner lived. Railroad Cave, at that time, had one entrance that had a friendly landowner, but a second entrance on the opposite hillside didn't. We chose the friendly side.

On September 5th, 1987, the three of us went to Railroad Cave. After a duck-walk entrance, the cave opened up to high ceilings and a wide trunk-like passage with meandering niches on both sides of the cave. The cave is very dry except for midway through, there is a massive growing formation. All three of us found Railroad Cave very well worth the trip.



Railroad Cave, Pulasaki County, Mo. Buzz Caldwell in photo. Photo taken by Gary Zumwalt

From Railroad Cave, we made a return trip to Bat Cave. I had been in Bat Cave before and knew the cave, especially how to get far enough ahead of my fellow cavers to slip through the cracks and

crevices going back to the ‘Devil’s Kitchen.’ There, I sat on a ledge waiting for them. They kept asking, “Did you go over or under?” They finally found me.

From Bat Cave, we visited Tunnel Spring Cave. We went through the lower entrance, under Hwy. 17 and to the upper entrance. We, then, back-tracked to the lower entrance and climbed up a bank (rock or clay is lost to memory) and crawled, belly crawl and hands and knees until it opened up to walking passage. If one goes to the left, they will find themselves at the spring entrance after a couple hundred feet or so. As one goes to the right, there is a lot of cave passage to explore and see, including an ancient crack in the ceiling that is being filled in by stalactites that are at least two inches long.

It is hard to believe this was almost forty years ago. Some of us were young adults and some were newborns. One can only guess what the next forty years has in store. – Buzz Caldwell

Thong Trees – Remnants of the Past

What is a thong tree? Another name for this tree is a Native American trail marker tree. These trees have always played an important role in our lives, in many ways. Trees have long been used for food, shelter, protection, warmth and served as reliable landmarks. Thong trees have dated back to the 1700s. Trail marker trees were an ancient form of land and water navigational aids, as well as denoting areas of significant importance.

So, how were these trees constructed? They would use saplings that were supple enough to bend and not split and kill the tree. They would drive the base of a forked stick into the ground near the base of the sapling. Then, they bent the trunk of the sapling over the V of the forked stick to form the first bend or hip. A leather strip or thong was tied about 2-3 feet from the top of the sapling and staked to the ground. The top was left to grow up toward light or rot off forming the second bend or hip, which became the nose. Over time, the leather strap or thong would break or rot off, leaving the shaped sapling. These trees would serve as a marker to water or shelter, including springs and caves. They could also mark Indian trails. If the trail went out of the tree area, they could use piles of rocks or plant poles. Trees bent in U shapes with 1-2 verticals are related to Ceremonial Burial sites. Marker trees with vertical extensions can be burial trees, designating the number of graves. For an extensive explanation of tree shapes and photographs, go to [Categorizing Indian Marker Trees](#)

– Don & Diane Wells 2018.

Picture taken by Shirley Evan’s son while he was on an outing in the Mark Twain National Forest near Cape Fair, Stone County Mo.



Marker trees were usually varieties of oak, but could also be elm, hickory or hard maple. The marker tree at Smallin Cave (Christian Co., MO) is a black walnut.

Indian trail trees can still be found in many states throughout the Mississippi Valley and eastward. They are more numerous in Illinois, Wisconsin, Michigan, Indiana, Ohio, Kentucky and Missouri.

The first Indian tribes in Missouri were the Osage and the Otoe-Missouria. Later inhabitants were: Illini, Ioway, Quapaw, Shawnee Delaware, Kickapoo, Sac & Fox, Omaha and Santee Sioux.

We have always known the connection between Thong Trees and caves. Generations of future cavers will probably never know about these informative trees. It is sad to think that they will all vanish in the years ahead. Thong trees are remnants of the past.– Alberta Zumwalt

Goodwin Flooding April 4 and 5, 2025

I met Ken Long out there to see what damage the storm did. There was one spot on Lancaster Road which had really washed out, it was the worst washout I have ever seen on that road. *FYI – I called Adam Hoffman our closest neighbor out there, he said that they had 4 inches in a couple hours on Friday the 4th, with a total of 5.5 inches for the weekend.*



It was a mess out there. Lots of branches and mud everywhere. You could see that the sinkhole had filled up about 2/3 of the way. There still was water running over the waterfall (but most of that water was disappearing below the waterfall).. Afterwards we drove to the Dry Auglaize Creek ford, and water was still running over it (*when water is running over the ford the water table is high enough that the cave can't completely drain*).

A few years ago, if the sinkhole would have had this much rain in a short time period, it would have completely filled and the bottom of the sinkhole would have still been under water. So all our work has been making a difference.

The Speleograph



Area across from the base of the waterfall



In certain areas the base of the road leading into the sinkhole may have been washed away. Therefore it may/may not be safe to utilize heavy equipment on this road anymore

There was some water still in the cave. We could not tell for sure if water was running back in the cave or not (due to the noise of the water running over the waterfall). We hope to go out there again in a few days to check on it again.



The Speleograph



A few years ago we constructed a small dam on top to reduce the amount of water running into the back of the sinkhole. We put in a 6 inch pipe (including a standpipe with a debris guard) to divert this water away from the sinkhole.

On April 4, 2025 a lot of leaves were washed down and plugged up the debris guard. Then the water rose to a level where there was a 6 inch overflow drain. In this picture you can see the standpipe with the debris guard (after I removed all the leaves clogging it) and you can see the 6 inch overflow pipe. But there was so much water that this pipe could not handle all of it and the water ended up going over the emergency spillway. *But the dam itself was not damaged.*



In this picture you can see the standpipe with the debris guard (after I removed all the leaves clogging it) and you can see the 6" overflow pipe.



In this picture you can see the emergency spillway beside the dam. It worked as planned but needs to be revegetated.

ONYX MOUNTAIN CAVERNS, PULASKI COUNTY, MO

Onyx Mountain Caverns is a former show cave, which was purchased by the U.S. Forest Service. The cave was operated by AGNES and HARRY THILTGEN until HARRY died in 2006. At this time AGNES was in her 80s and *"didn't want to monkey with it anymore"*. The Forest Service installed new gates to protect the cave and transformed it into a place for endangered and threatened species. The cave is home to the Indiana bat and the gray bat. It will not be operated commercially anymore.

Onyx Mountain Caverns is a large and beautiful cavern. The huge entrance portal is followed by a cavern with a size of almost half an hectare, 120 m long, 30 m wide and 12 m high. It was once used by Woodland Indians as a shelter, some of their Flint artifacts are on display in the cave entrance. There is evidence of ceremonial use as well as of residential habitation. The huge entrance could have accommodated many small tribes of the area. The cave was used as a shelter for about 10,000 years, but the Woodland Indians had vanished when the first settlers came, so there is no historic description.

The floor of the cave shows some **bear beds**, shallow holes dug by bears to sleep inside. They spent the winter in the cave for hibernation. The tour also shows the cave river. The speleothems of this cave have been mined during the Victorian era. As flowstone is locally called **onyx**, the company who did this was called the **Imperial Onyx Company**. Several carloads were removed and shipped to St. Louis. When cut, flowstone has a structure similar to marble or onyx. It was used in contemporary Victorian-style homes and public buildings for decorative stone. Obviously flowstone is neither marble nor onyx. Onyx is a variety of quartz, flowstone is calcite, marble is calcite but it is formed during a metamorphic process which is very hot with high pressures. Flowstone is formed in a cool and wet cave with atmospheric pressure. The rock is not very suitable as decorative stone, as it often contains holes and the mining is too difficult, so this era fortunately ended soon, and most flowstone remains in the cave.

Another intended use of the cave as a tuberculosis hospital in the late 19th century was fortunately never realized. The cool and damp air would probably have caused a lot of deaths from pneumonia instead of curing tuberculosis. Speleotherapy is only working on asthma, not on infections. In the 1950s the next threat came, the entrance hall was intended as a jet propulsion lab for testing jet engines for military fighter planes. Fortunately it was never realized.

The Speleograph

The cave was visited for a very long time. At the turn of the century, tourists coming from St. Louis on the Frisco railroad were brought up river from Jerome. But only the large entrance room of the cavern was visited. The cave was finally developed and opened to the public in 1990.



The cave has still some fine speleothems, despite the onyx mining. There is a 10 m high flowstone and numerous stalactites and stalagmites. There are also draperies and soda straws. The most exceptional speleothems are box work formations. An endemic algae, found only in this cave, is only of scientific interest. It is published in the National Sciences Annual.

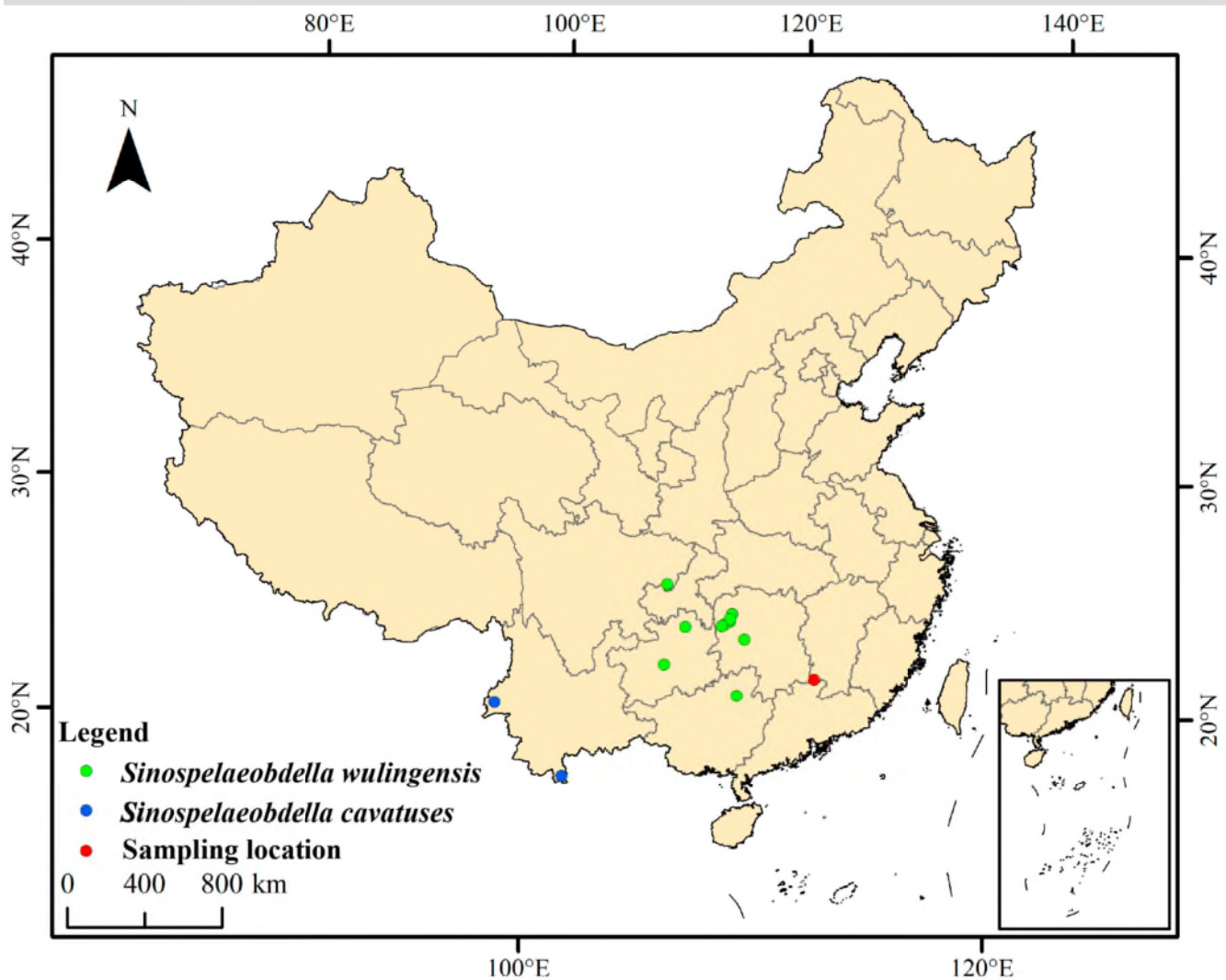
Submitted by Ken Long

Cave Critters of China

Dillon Bond

Unveiling China's Karst Cave Landscape

Beneath the misty peaks of southern China lies a subterranean world of unparalleled wonder. The South China Karst, stretching across the provinces of Guangxi, Guizhou, and Yunnan, is considered to be the world's largest concentration of karst.



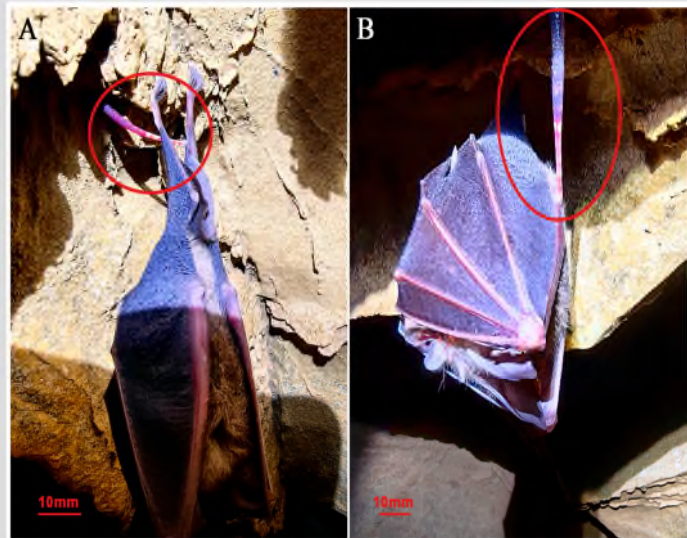
The caves of southern China attract natural researchers of all kinds, and new creatures are regularly being found. Among the most captivating new discoveries is a type of ground leech that has evolved to live in caves.

A Creature with Three Jaws

Sinospelaeobdella jiangxiensis is one of two species of *Sinospelaeobdella* leeches that have been found living in humid caves in the subtropical climate of Southern China.

This new species of blood sucking land leech challenges our understanding of the creature as most leeches live above ground and are not adapted for specific prey. Recent leech discoveries have forced scientists to revise the taxonomic classifications of several families and genera.

S. jiangxiensis has lost its pigmentation and features enlarged body sensory organs, larger suckers, and different eating habits from above ground leeches. It feeds on vertebrates such as bats and appears to have the ability to detect bat skin (photo B). This leech has five tiny pairs of eyes which can be seen at the top of the left specimen in photo A.



Photos have been shared in accordance with the Creative Commons Attribution.

Sources:

1. ["Empire of Rock" – National Geographic](#)
2. ["A New Species of *Sinospelaeobdella* from China: *Sinospelaeobdella jiangxiensis*" – MDPI](#)

The following was printed in the January – June 1994 Ozark Speleograph

Jim Leck and Bob Gitchell worked together, for many years, at a camp for boys in the Lake of the Ozarks area. Great job by Jim and Bob, may they both rest in peace – submitted by Alberta Zumwalt

Did you ever notice how much a bat and a hog look alike? Do you think they're related? One of the rural students at the Adventure Based Counseling facility, where Bob Gitchell and I work, posed this question to Bob after our usual Perkins Cave trip. Now, Bob enjoys poetry, or at least in the sense of using it to entertain.

He presented this poem at our awards banquet as a way for the staff to remember this particular youth. Personally, I think he has some talent, you be the judge. I just thought I'd surprise him by having it printed in the Grotto Newsletter and share this gem with everyone. – Jim Leck 4/94

WE AIN'T FIRST COUSINS

Pigs don't hang on ceilings in caves
And we all know pigs can't fly
But if I ever have the opportunity,
I want to see any pig that tries.



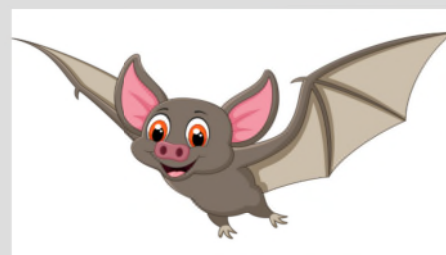
Bats during winter hibernate in caves
That's something that a pig won't do
I know that bats they squeak not grunt
But I'll bet you knew that, too.

Pigs very often, are very fat
They're very often found in mud
Pigs are never accused as vampires
But some South American bats suck blood

Pigs have litters of very many young
Bats seldom ever have more than two
Pigs aren't on any endangered lists
But some species of bats are few.

Pigs have feet with hardened hooves
Bats have little, bitty, tiny claws
Farmers raise pigs for bacon and ham
Killing bats is against the law.

Now, I've given you these answers
And I hope you understand, you dig
I'm sure the bats will forgive you
But their first cousins ain't no pigs.



- Bob Gitchell 03/91

Graham Spring Cave

On February 21, 1987, Lake Ozarks Grotto members were scheduled to visit and perhaps do some mapping in Lemman Wilson Cave near Kaiser, MO. Upon arriving at the property the cave is located on, they were told that “by order of the Miller County Sheriff’s Dept.,” no one is allowed on the property.

The group, then, proceeded to a spring outlet just off blacktop JJ near Ulman, MO. The author of this article named the “Graham Spring Cave” after the owner at the time, Gary Graham, now deceased. Some of the group basically stuck their head in the door, so to speak. It was a cave which continued for at least 100 ft. It was winter and none of our group had wet-suits which would be a must for this type of cave exploration. It was wisely decided to make a return visit when the weather was warmer and hopefully, the water level would be lower.

On August 8, 1987, Sam Visser and I visited Graham Spring Cave for the purpose of checking the water level in the cave-spring. The water level had not dropped. The cave was not entered.

On May 28, 1988, the Zumwalts, Gary, Alberta & Travis, Jim Travis and yours truly made a return visit to Graham Spring Cave. Three of our group had wet suits and two did not. The three with wet suits proceeded deeper into the cold, no, very cold spring water of the cave. The two without wet suits went back perhaps 200 feet or so into the cave. The three with wet suits went an estimated 500-1000 feet further back into the cave.

The explored length of this cave is all a bellycrawl in cold spring water, not even high enough for one to get up on their hands and knees. The cave passage is about twelve-fifteen feet wide. Only very briefly does it get maybe three feet high, but then it is a bellycrawl, again. Some formations and a lot of raccoon tracks were observed.



Locals around the area have stated that the spring outlet can flood even when it is not raining at the site. This has not been proven as of yet. In fact, on April 20, while attending his nine-year-old great nephew's birthday party about one mile northeast of Graham Spring Cave, it came up a thunderstorm with moderate to heavy rains. The rains lasted for at least a half hour and were widespread across the area. After the party was over, I went over to visit Graham Spring Cave. The flow was normal but nearby Dog Creek was running at full throttle. Nearby Pea Ridge and Ulman Ridge, both received these rains so the spring outlet may not flood after all, but then, it never runs dry, either.

The author of this article was also told by his niece's husband (Daniel Patterson) that his Grandpa (Maurice Patterson) saw cornstalks washing out of the cave when the river got really high. When people of this area speak of "the river", they are speaking of the Osage River. Maurice Patterson is now deceased, but has a brother, Donald, who is still living. I tried to set up an interview with Donald, but Donald doesn't remember much except that while attending Dog Creek School, he and some classmates would visit the cave and play there.

It is my opinion that the cornstalks probably washed into the cave entrance from nearby Dog Creek, merely a few yards away. Looking at the Tuscumbia 7 ½ minute topo map, the Osage River is between three – five miles away, depending on whether one goes north or northwest. Another problem with the cornstalks washed in from the Osage River is that there would be other objects such as driftwood, leaf matter and various trash that came from the river. Finally, as all cave explorers know, one seldom encounters dry, sandy and level passage with most cave passage having a lot of ups and downs with mud banks and rock ledges to climb up and down. The cave passage would be full of debris.

At the time of this writing, it seems that Graham Spring Cave remains an unexplored, uninviting, cold, wet cave. It remains a mystery where the cave gets its water, whether nearby Pea Ridge, Ulman Ridge, or if it may pirate water from the downstream Dog Creek. The question is, will it ever be fully explored?
– Buzz Caldwell



Graham Spring Cave

Minutes

April 8th, 2025

The April meeting of Lake Ozarks Grotto was called to order by Ken Long, Chairman, in the meeting room at Stark Caverns, Eldon, MO.

Roll Call: Seven members present – Buzz Caldwell, Christen Easter, Ken Long, Karen Weaver, Rosie Weaver, Gary & Alberta Zumwalt.

The minutes of the November meeting were read and approved.

Chairman Long reported that Christen has the name plate for Frank to put on the memorial bench after the meeting.

Chairman Long said the website is due at a cost of \$337.85. Discussion on whether to keep the grotto website. Gary made a motion that we keep it for one more year. Seconded by Christen.

Goodwin. Chairman Long said he checked out Goodwin on Sunday, April 6th. At the site were: Klaus Leidenfrost, Jean Knoll, Ken & Monica with their Grandson, Wyatt. There had been over 4 inches of rain on Friday night. The weekend before, Klaus, Jean, Ken & Monica checked out Slaughter Sink and Conical Sink. They also looked at nearby Onyx Mountain Cave.

Buzz talked about some caves in his area.

Kiesewetter Cave – Chairman Long said there have been a lot of trips going in.

Chairman Long volunteered to do a program for the next meeting.

Meeting adjourned. – respectfully submitted, Alberta Zumwalt

June 10th, 2025 (May Meeting was canceled.)

The June meeting of Lake Ozarks Grotto was called to order by Ken Long, Chairman, in the meeting room at Stark Caverns, Eldon, MO.

Roll Call: Seven members present - Buzz Caldwell, Christen Easter, Ken Long, Karen Weaver, Rosie Weaver, Gary & Alberta Zumwalt.

The minutes of the April meeting were read and approved.

Chairman Long said there was a credit from the website payment of \$19.81. He gave \$20 to be deposited back in the grotto account. He said Dillon Bond might be able to help with the website and save us some money.

The Secretary/treasurer reported that the memorial check for Frank Hurley had not been cashed and Ross Hurley said he would be getting it done.

A couple newspaper clippings were passed around with Linda Marg's picture in the clippings.

Chairman Long reported that Janelle Stockstill had contacted him to see if a group of Boy Scouts could be taken into a wild cave in the area – possibly Skaggs, Perkins or Kiesewetter. He said he would lead a trip into Kiesewetter, Christen volunteered to help if a date can be made, possibly in August.

Chairman Long said the Memorial bench needs work and suggested setting a date for a grotto picnic and for working on the bench.

The MSS meeting will be in Boone County. The date will probably be changed from Oct. 5th to Oct. 12th.

The program for July will be done by Gary, probably old pictures..... Tonight's program was an excellent presentation by Chairman Long and spanned years of caving history.

Meeting adjourned. – respectfully submitted by Alberta Zumwalt

BREAKDOWN:

Ken Long – I'm not good with long screws.....

Gary Zumwalt to Ken Long – Your thing is too big for the screw hole?

Out of the mouth of Ken Long – I found out my house is blue not green (had something to do with power washing.....) – Thought Ken was colorblind for a minute..... or worse yet – becoming an old person.....

Ken Long – Piece of shit sitting by a pile of shit..... (comment he made about one of his pictures during his presentation)

Christen Easter said she has no time to do an article for the Speleograph – She actually has to go in to work, now.....

