CENTRAL
OKLAHOMA
GROTTO
OF THE NATIONAL
SPELEOLOGICAL SOCIETY,INC

C.O.G.nizance

Inside this Issue

Announcements ……..…...….....2
Treasurer's Report ……...……...…….....…..2
Minutes ……...…….....…...……...……..……2
Trip Reports ……...… 2-3
Prospect and Grotto Caves; Oct. 20, 2018 written by Sue Bozeman, pictures taken by Jon Woltz.,,,..3
Potpourri
Gear Review, Zebra Light; contributed by Dale Amlee... 4
Massive Sinkhole in China has Led to the Discovery of a 'World Class' Geological Wonder……..…….. 4-5
CAVEVOLUTION; contributed by Sue Bozeman …..... 4

The Next Meeting will be on Friday November 9, 2018 7:30 p.m. Hosted by John and Sue Bozeman.

CROSSING TRADER'S CREEK AFTER MUCH RAIN!

ANNOUNCEMENTS

*Northwest trips are scheduled the third Saturday of every month. Contract Sue or John Bozeman for details.

*The Next meeting will be Friday, November 9, 2018 at John and Sue Bozeman's..

WHITE-NOSE SYNDROME DECONTAMINATION PROTOCOL, APRIL 2016

This is the latest formal revision of the national decontamination protocol to prevent spread of the fungus that causes white-nose syndrome. This document is the product of a collaborative effort with multiple federal and state agencies and several non-governmental organizations. Go to this website to view the detailed suggestions listed to help stop the spreading of WNS.
https://www.whitenosesyndrome.org/news/national-white-nose-syndrome-decontamination-protocol-april-2016

TREASURER'S REPORTS

OCTOBER 2018 TREASURERS'S REPORT

INCOME		
Dividends	$	00.01
TOTAL	**$**	**00.01**
CASH ON HAND	**$**	**116.31**
CHECKING	**$**	**51..99**
SAVINGS	**$**	**2164.76**
TOTAL	**$**	**2333.00**

EXPENSES		
Flowers for Betty	$	93.20
	$	**93.20**

Balance as of **11/1/2018**

PREPARED BY TREASURER JOHN TALBOT

MINUTES

CENTRAL OKLAHOMA GROTTO
Minutes of the October 12, 2018 COG Meeting

Attendees: Dale Amlee, John and Sue Bozeman, John and Elaine Talbot, hosts/ess Art and Paula Wallace, and guest, Sue submitted the minutes.

Old Business

Scheduling a work trip to Carlsbad Caverns has been of interest ever since trips were cancelled by CC because of budget cuts. Dale made contact with a CC organizer and was offered specific dates for reserving caver cabins in April – June 1. Kevin has been there more recently than we and advised that things have changed. The oil boom in the area has made getting a hotel reservation within a 50 mile radius extremely expensive and requires reservations well in advance. Restaurants are also much more expensive and traffic is nuts. More discussion is necessary.

New Business:

John and Sue reported on attending Betty's sister Barbara Balmear's funeral in Woodward. Betty was very pleased that we came, especially John, who has not been able to cave in a long time. We didn't get to talk to her long, but she seemed composed, handling things well. There were about 60 people there for the service and we got to meet Barbara's brother and his wife and talk with Jay Rankin's wife, Barbara, for a few minutes. The flowers provided by the Grotto were next to Barbara's head and a very nice arrangement.

Guest, Kevin, was referred to us by Ken Johnson (our OU geology prof, now retired, contact for tons of years). Kevin is a geology prof himself, but in Texas and is interested in gypsum and our karst. He described Texas gypsum and has been to Alabaster and knows there is a big difference in formations. He's interested in possibly doing some studies in our various karst areas and will keep in contact. He'll start with Alabaster and the Selman System and if he can, he'll try and join us on one of our survey trips – maybe with a student or two. He may help with the Jester Bat Count in January, 2019.

Cave Trip:

Work on Prospect Cave continues. The work is now a point where we need to negotiate tight, low (damp or worse) belly-crawl spots from either end. Concern that the recent heavy rains might make in-cave work impossible were discussed and it was determined that we'd go ahead and try. The ranch roads might be impassible and we might have to walk a goodly distance, but it was to be a nice day.

TRIP REPORT

Trip Report: Prospect Cave, Oklahoma
October 20, 2018
Trip members: Dale Amlee, Sue Bozeman and Jon Woltz
Written by Sue Bozeman
Pictures taken by Jon Woltz

With the weather 'iffy', we crossed our fingers, bit the bullet and drove the 3 hours to NW Okieland. The lakes of water that were visible during the trip to Barbara Balmear's funeral had departed. The side roads look decent. It was the ranch roads that might cause some grief.

We changed at Alabaster Caverns so that we would be pop-up ready to rumble when we got to the cave. Road west from the main highway was fine until we hit shady low spots. Those had mud and water in standing traps and we just ploughed through them slowly but firmly. Concrete -like mud coated the bottom of our trucks – clean-up would be great fun tomorrow! The first turn north presented deep (8 inch) ruts and showed large lugged tire tracks in the firmer muds. The center of the road had been shorn flat by the underbelly of whatever had made the ruts. We did not continue. Pulled off to the side, we left the vehicles and started the very long walk to Trader's Creek

The heavy recent rains had washed out the remnants of the low-water crossing, making a little pond. Jon and Dale went upstream and found a place to jump the 2-foot deep creek (required a 4 foot jump +/-); I put a big shopping bag on each leg and waded the now 20-foot wide low-water crossing that is now a foot deep in spots. Everyone got a bit wet. My bags sprung leaks on the stones underwater and I'll be using 'Tuffies' in the future. I do NOT like to spend an entire day with soggy coveralls and squishy footgear. Forewarned is forearmed.

We headed into the Two-Snake Entrance, Jon leading. No snakes in evidence, but lots of debris – grass, sticks and cow patties. The first low crawl had to be re-dug. Jon and Dale passed debris back and I found a place for it behind me. Quite soon we heard our first, "Hmm." After the third without any further explanations forthcoming, I said, "Hmm, what? Can you be more specific?"

Jon said, "Well, we have a couple of inches of water to contend with and more debris to remove." Dale and I could tell he didn't want to say it was impassable nor that he didn't want to do it. But. So I suggested that each of us take a look at the situation – make a yes or no determination but not say anything – and after we all had looked, take a vote. Dale went in and came out with 'I have MY opinion!' I took a look and just snorted, "You've got to be kidding! We'll be scooping water and junk down our shirts just to get 5 feet! And who knows what's beyond that before we get to our last survey point! Nope. Sorry. Y'all can do this if you want, but it'll be a two-person survey team!" There was truly no reason to enter and, no so oddly, not a single dissenting vote was cast!

So. No in-cave surveying was going to get done because the other side was already somewhat muddy and low BEFORE the rains came. It would be worse now. We'll wait until it dries out – can't survey in November because of the first day of rifle season, so we'll have 2 months of dry-out time that will improve things.

We opted to do an overland from one entrance to the other, but that necessitated a physical tape as lasers don't work in daylight. I suggested that I do the hike back to the vehicles, get the tape and meet back up at Grotto Cave. We'd wanted to see how much water was now in Grotto, so the guys went to explore and I hiked up and back.

Basically, Grotto Cave was only a tad higher, but the rains had really taken a toll on the culvert and dams that had been installed last year. We did the survey and then headed up to Betty's to chat for a bit and wish her a Happy Halloween. It was a gorgeous day. Not too hot and just enough a breeze to be pleasant in coveralls.

Note: we'd taken mud, air and water temps and they were 58-61 degrees F. Saw one Pipistrelle – that was it.

Above: looking out of Grotto Cave; below: Popcorn in cave

POTPOURRI

GEAR REVIEW ZEBRA LIGHT
CONTRIBUTED BY DALE AMLEE

When I first started caving back in around 2001, I was using an old-fashioned brass carbide lamp. After a couple of years with that device, I changed over to a modern LED variety, the Petzl Duo with 10 LED bulbs on the primary side. This worked well for many years, and proved to be very durable and reliable. However, after about 15 years of use, I found that it no longer was meeting my needs. Some of that was because as I aged, my night vision was not as good, and I found that I needed more light to properly enjoy caving in a safe manner. Better light means better visibility, which can mean better footing and seeing obstacles and dangers ahead of time. It also simply means that the cave itself, with all the various pretty objects, can be enjoyed that much more.

The old Petzl Duo, by my research, puts out roughly 48 lumens of light from those 10 LED bulbs. This is spread out through a decent angle, providing a fairly wide beam of light which is good for walking through the cave. Many lights on the market provide a more focused beam, which makes for great spotlighting of specific features that you want to see, but the narrow beams often make walking and navigating a cave a little more difficult.

Modern LED technology has made great advancements in the past decade, and the light available today are in many cases far superior to the lights made ten or fifteen years ago. One such light, the topic of this review, is the Zebra light. I purchased this light a few months ago as an upgrade from my old Petzl, and I am extremely happy with the item.

This new light has several different power settings to allow varying amounts of light, depending on conditions. The highest output is 1090 Lumens! Compared to my old lamp putting out only 48, this looks like a car headlight when you turn it on in a cave. The medium power setting is a more reasonable 70 lumens, and provides a very good amount of light for general walking purposes without draining the battery too fast.

Comparing my old Petzl with the Zebra, one obvious difference is the spread of the beam. The older Petzl had a moderate light angle, providing good light in front of you, but not so much to the sides, and this includes down towards your feet. So walking with the Petzl I had to always keep my head angled downward to get good visibility on where I'm stepping. With the Zebra light, it throws light out in a 120 degree spread, which gives very good illumination to the sides, up, and down by my feet so I don't have to continually swivel my neck around just to see the cave and also where I'm stepping.

This light takes a rechargeable lithium ion battery (type 18650) that is showing up more and more in modern flashlights and other items that need a fairly good amperage to work properly, and this one battery gives significantly more light, both in intensity and in hours of duration, than the old standard AA type.

My favorite feature of this new light is the ability to rapidly adjust between the different light strengths depending on what I am doing at that moment. I need far less light to sit and take compass shots than I do for walking, and all it takes is a quick press of the button on the lamp to toggle between modes.

Massive Sinkhole in China Has Led to The Discovery of a 'World Class' Geological Wonder
written by MICHELLE STARR 23 OCT 2018
www.sciencealert.com/hong-kong-haiting-hall-tiankeng-sinkhole-china-huge-cave-hall-complex

A expedition to explore a giant sinkhole in the forest of Guangxi, China has resulted in the discovery of a tremendous cave hall complex under the ground.

At 6.7 million cubic metres (236 million cubic feet), the cave's volume is of a rare enormity, making it 'world class,' geological experts are reported as saying.

The expedition was a joint venture between China and the UK, led by Zhang Yuanhai of the Institute of Karst Geology of the Chinese Academy of Geological Sciences, and British Caving Association chairman Andy Eavis.

From 4 to 8 October, the 19-member team lowered themselves into the tiankeng - the Chinese name given to this type of unusually large sinkhole - using just a single rope. Once inside, they set about mapping the interior.

"This giant cave hall was actually discovered by the Hong Kong expedition last year, so it was named Hong Kong·Haiting Hall," Zhang Yuanhai explained to Chinese news website Science and Technology Daily.

"This time we mainly determined its volume and world-class status through three-dimensional scanning."

They discovered that the sinkhole pit is 100 metres (328 ft) wide and nearly 200 metres (656 ft) long, with a maximum depth of 118 metres (387 ft). Towards the southeast end, the slope collapses into a huge cave complex.

It contains corridors, halls, craters, collapsed rocks, stone pillars and a type of formation called cave pearls - small, round stones polished smooth by water and deposited in cave crannies, where they sit undisturbed.

A shaft in the large cave hall was found to connect to an underground river, which feeds into the nearby Panyang River.

The 3D scanning will also let geologists reconstruct how the sinkhole collapsed.

"Three-dimensional scanning found that Hong Kong·Haiting Hall has retained a lot of evidence of the

(continued on page 5)

collapse of the crater evolution, especially the traces of rock mechanics produced after the collapse, which are clearly visible, demonstrating the evolutionary characteristics of this tiankeng," Zhang Yuanhai said.

Tiankengs are usually the result of the collapse of an underground cavern, which has slowly been eroded by

geological forces, such as water.

For example, the 626 metre (2,054 ft) long Xiaozhai Tiankeng, or Heavenly Pit - the largest sinkhole in the world - formed over the the limestone Difeng cave, which had been carved out by a powerful underground river. Xiaozhai Tiankeng (Wikimedia Commons/Public Domain)

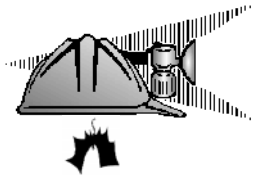
It's likely that Hong Kong·Haiting Hall was formed in a similar manner.

"These giant caves are natural caves, most of which are caused by collapses and are related to underground rivers," said Zhang Yuanhai.

But he also added, "The formation of all caves is not a one-step process. They basically have a history of more than 2 million years."

Central Oklahoma Grotto is a non-profit organization and a chapter of the NSS (National Speleological Society), Cave Avenue, Huntsville, AL., 35810. Dedicated to cave conservation and safety, C.O.G. published general information in a monthly newsletter ($6.00/year) and detailed cave surveys and related Speleological items in a yearly publication, *The Oklahoma Underground* ($3-$8/ issue) Membership is by sponsor and is $12 per year for adults, $6 for spouses and students, and $3 if under 18. Central Oklahoma Grotto meets once a month on the second Friday of each month. For information, write Lil Town, 25692 Mosier Circle, Conifer, CO 80433: All submissions to the newsletter should be sent to the editor: Lil Town, 25692 Mosier Circle, Conifer, CO 80433: Telephone: (580)471-1238: E-mail: cavemoose@gmail.com. The deadline for submissions for any particular month's issue is the 20th day of the previous month. If you wish material returned. Please include a SASE with submission. All materials in this newsletter is available for reproduction, provided proper credit is given with the article when you print it. Trade publications are welcomed. *Cave softly and safely!* Website: http://www.okcavers.com

The November meeting will be
Friday, November 9, 2018
At John and Sue Bozeman's.



Central Oklahoma Grotto
Guano Ink Typesetting
2719 Holly Oaks Lane Apt.283
Weatherford, TX 76087