CENTRAL
OKLAHOMA
GROTTO
OF THE NATIONAL
SPELEOLOGICAL SOCIETY,INC

C.O.G.nizance

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The January meeting of the Central Oklahoma Grotto was at John Talbots, the February meeting will be Friday, February 14, 2014 at 7:00 p.m. The meeting will be at the home of John VanDyke.

Bet you can't identify what cave these Central Oklahoma Grotto Cavers are in!

ANNOUNCEMENTS

*Northwest trips are scheduled the third Saturday of every month. Contract Sue or John Bozeman for details.
*The February meeting of the Central Oklahoma Grotto will be held Friday, February 14, 2014, at the home of John VanDyke.
* Carlsbad Cavern clean up trip. Saturday, March 15th. Check with Duane for more details.

MEETING PLACES SCHEDULED FOR 2014

Jan 10 - John Talbot
Feb 14 - John VanDyke
Mar 14 - Carlsbad, NM
Apr 11 - Duane Del Vecchio
May 8 - Dale Amlee
June 13 - Dale Town
Sept 12 - Jon Woltz
Oct 10 - Art Wallace
Nov 14 - Steve Baleu
Dec 12 - Bozemans

NO MEETINGS JULY AND AUG.

National White-Nose Syndrome Decontamination Protocol - Version 06.25.2012

The fungus *Geomyces destructans* (*G.d.*) is the cause of white-nose syndrome (WNS), a disease that has devastated populations of hibernating bats in eastern North America. Since its discovery in New York in 2007, WNS has spread rapidly through northeastern, mid-Atlantic, and Midwest states and eastern Canada. It continues to threaten bat populations across the continent. For the protection of bats and their habitats, comply with all current cave and mine closures, advisories, and regulations on the federal, state, tribal, and private lands you plan to visit. In the absence of cave and mine closure policy, or when planned activities involve close/direct contact with bats, their environments, and/or associated materials, the following decontamination procedures should be implemented to **reduce the risk of transmission** of the fungus to other bats and/or habitats. For the purposes of clarification, the use of the word "decontamination," or any similar root, in this document entails both the 1) cleaning and 2) treatment to disinfect exposed materials.

Under no circumstances should clothing, footwear, or equipment that was used in a confirmed or suspect WNS-affected state or region be used in a WNS-unaffected state or region. Some state/federal regulatory or land management agencies have supplemental documents1 that provide additional requirements or exemptions on lands under their jurisdiction.

I. TREATMENTS TO REDUCE RISK OF TRANSFERRING *GEOMYCES DESTRUCTANS*2:

Applications/Products:

The most universally available option for treatment of submersible gear is:

Submersion in Hot Water: Effective at sustained temperatures ≥50ºC (122ºF) for 20 minutes

Secondary or non-submersible treatment options (for a minimum of 10 min.) include:

PRODUCTS: **Clorox® (6% HOCl) Bleach**
Lysol® IC Quaternary Disinfectant Cleaner

MINUTES

CENTRAL OKLAHOMA GROTTO
Minutes of the January 10, 2014

Host: the home of Master Chili Chef John Talbot.

Attendees: Dale Amlee, Anne Ault, John and Sue Bozeman, Duane Del Vecchio, John Talbot, J.T. Van Dyke, Jon and Kelley Woltz, S. Beleu

His Most High Excellence Jon Woltz opened the meeting at 8:00

OLD BUSINESS

Duane reported about our impending historic return pilgrimage unto Carlsbad Caverns. We have choose to work in the cave on March 15, continuing our former work at National Geographic Pit in Lower Cave. Duane asked our contact, former COG member Shawn Thomas, to send us current photographs of the Pit so we could try to visually evaluate the status of the pit screens and the amount of work that we'll have to do on them. Since the meeting he has sent these photos to Duane. Having Shawn at Carlsbad now is going to be useful connection for us – and welcome back to caving with COG, Shawn!

NEW BUSINESS

- We decided to count bats at Greene's Cathedral and Jester Cave System on February 15th.
- I talked about the possibility of our getting two new members, one an established real caver who uses carbide light, the other a person interested in cave but a newbie.

TREASURER'S REPORT

John Talbot gave his treasurer's report.

The Sergeant-At-Underarms concluded the meeting at 8:45 so we could eat more chili.

TREASURER'S REPORTS

2013 END OF YEAR REPORT

1/12013	**Bank Balance**	**$ 2,462.37**
	Cash on Hand	**$ 118.10**
	Total	**$ 2,580.47**

INCOME			**EXPENSES**	
Dues	$	128.00	Postage	$ 81.58
Newsletters	$	24.00	Newsletter Printing	$ 42.48
Dividends	$	1.29		
Publication Sales	$	110.50		
Donations	$	.68		
Postage	$	2.32		
TOTAL	**$**	**266.79**	**TOTAL**	**$ 124.06**

12/31/2013

Bank Balance	**$ 2,649.16**
Cash on Hand	**$ 74.04**
Total	**$ 2,723.20**

TOTAL FUNDS AS OF 12/31/2013

PREPARED BY TREASURER JOHN TALBOT

JANUARY 2014 TREASURERS'S REPORT

INCOME			**EXPENSES**	
Dividends	$	0.34	Postage	$ 29.44
Newsletters	$	24.00	Printing	$ 16.72
Dues	$	12.00		
TOTAL	**$**	**36.34**	**TOTAL**	**$ 46.16**

CASH ON HAND	**$ 74.04**
CHECKING	**$ 513.61**
SAVINGS	**$ 2,135.55**
TOTAL	**$ 2,723.20**

TOTAL FUNDS AS OF 1/8/2014

PREPARED BY TREASURER JOHN TALBOT

FEBRUARY 2014 TREASURER'S REPORT

INCOME		
Dividends	$	0.02
Dues	$	12.00
TOTAL	**$**	**12.00**

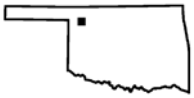
CASH ON HAND	**$ 86.04**
CHECKING	**$ 513.63**
SAVINGS	**$ 2135.55**
TOTAL	**$ 2735.22**

TOTAL FUNDS AS OF 2/8/2014

PREPARED BY TREASURER JOHN TALBOT

TRIP REPORT

Date: Jan. 18, 2014
Cave: Greene's Cathedral
Surveyors: Dale Amlee, Steve Beleu, Sue Bozeman, and Jon Woltz
Trip report by Jon Woltz



Our plan for the January trip was to complete the survey of Greene Cathedral's Whitetail passage. On our previous survey in November, we'd surveyed to an old flagged point just prior to an area where the passage was interrupted, though not plugged, by a large jumble of breakdown.

The weather on Jan. 18 was pretty good for mid-Winter: a high in the 50s and wind that stayed under 30 mph. We met at Betty's ranch house around 10:30 a.m., got suited up, and made the short drive to the cave entrance. The most difficult part of Whitetail is the helmet-scraping, face-in-the-dirt, porcupine-poop-dodging long crawl on the way to the last survey point. Once we were past the crawl, we saw a number of bats (tri-colors and velifers); all of them appeared healthy to us. (And we saw a couple of salamanders too.)

We surveyed over the breakdown pile into passage that was mostly crouching and standing height. Sue did book, while Dale, Steve, and I alternated taking backsights and foresights. The passage was fairly dry, though a number of the survey shots required lying in the streambed. Those shots were the most uncomfortable to make, because even in the places that looked dry, water would seep through the gravel and wick into our clothing.

We surveyed this passage until it widened out and became very low and muddy. Here, immediately adjacent to the main passage, another passage connected to it from the right. Using the laser, we determined that this passage went about 35 feet before making a turn. We thought this passage might be worth surveying on a future trip, but a quick crawl into it revealed that the passage made a sharp left turn and immediately choked into a narrow and water-filled one-foot high passage. At the turn, there was a pool of water (perhaps 5'x7') and a small opening in the ceiling where water was dripping into the pool.

With the Whitetail survey complete, we make the long trip back out. After cleaning up at the ranch house, we paid a visit to Betty. She was doing well and very generously gave us each a box of Christmas candy to take home. (Thank you, Betty!) We got to Fairview about 9:00 p.m. and had pizza at the Hut.

POTPOURRI

Scientists Discover Five New Bat Species in West Africa

September 5, 2013
http://cavingnews.com/20130905-scientists-discover-five-new-bat-species-west-africa

An international team of scientists have recently discovered five new species of bats in West Africa.

The team, made up of researchers from the Czech University of Life Sciences and the Academy of Sciences, Charles University in the Czech Republic and England's University of York, discovered a wealth of unexpected diversity among Vesper bats in Senegal.

During seven expeditions to the Niokolo-Koba National Park in south-eastern Senegal the researchers studied 213 vespertilionid bats. Through subsequent genetic analysis of the species, the scientists discovered that although five specific species of bats looked similar to other species in Africa, Pipistrellus hesperidus, Nycticeinops schlieffenii, Scotoecus hirundo, Neoromicia nana and Neoromicia somalica, they were genetically different.

The fact that these Senegalese bats are unrelated and are different to their cousins in other parts of Africa, suggests that West Africa may have been isolated in the past and formed a refugium, where populations gradually diverged and even acquired new chromosomal configurations. "This exciting finding confirms that West Africa may represent an underestimated bio-geographic hotspot with many more species to discover. — Nancy Irwin, University of York Department of Biology

Taxonomists are now working on describing these new species — Vesper bats (Vespertilionidae) are already the largest family of bats with more than 400 known species. Their research is published in Frontiers in Zoology.

New Room Discovered High in the Ceiling of Carlsbad Caverns

Reprint from CAVING NEWS
http://cavingnews.com/20131115-new-room-discovered-high-ceiling-carlsbad-caverns
November 15, 2013

Carlsbad Cavern's newly discovered Halloween Hall.

What began as a routine climb to a cave passage high inside the ceiling of the main cavern at Carlsbad Caverns National Park, turned into a night of excitement for two cavers who discovered a colorful new room on Halloween night.

Caver Derek Bristol, a volunteer with the Cave Research Foundation, and Shawn Thomas, a cave technician at Carlsbad Caverns, decided to climb to the "Spirit World" area to finish surveying as part of creating a new map of the cave. Once they were inside Spirit World, 77 meters (255 feet) above the floor of the Big Room, they traveled to an unclimbed ledge another 4.5 meters (15 feet above), which had been observed on previous trips but never explored. Such a ledge potentially can lead to new rooms and cavers have made many new discoveries in the Guadalupe Mountains simply by following such "leads." Although neither Bristol nor Thomas expected this one to pan out – "Most of the time, obscure leads like this go nowhere," Thomas said – they decided to explore anyway.
Going first, Bristol climbed up and over the ledge. To his surprise, it opened into a 9 meter 9 meter (30 -foot) long passage.

I remember being really shocked. I couldn't believe this was happening. There hasn't been a room this big discovered in decades. Shawn Thomas

Thomas and Bristol, who named their find "Halloween Hall," were amazed at the room's beautiful colors and decoration. They found light-blue endellite clay, football-sized dogtooth spar crystal formations and, most surprising, thousands of bat bones. The room also was full of "breakdown" (fallen blocks of limestone bedrock) as well as a fabulous cascade of flowstone, a cave formation gradually created by mineral deposits left by water that once flowed slowly from above.

The most exciting part of the Halloween Hall discovery is that there may be much more to explore. Thomas and Bristol did not have time on Halloween night to go beyond the entry to the large room. They plan to return when their schedules allow, most likely in February, for more exploration, mapping and discovery.

Rising Star Expedition Finds over 1,000 Hominid Fossils

Reprint from CAVING NEWS
http://cavingnews.com/20131206-rising-star-expedition-finds-1000-hominid-fossils
December 6, 2013

A three-week expedition was mounted this past November after cavers from the South Africa's Speleological Exploration Club stumbled upon hominid fossils.

Cavers Steve Tucker and Rick Hunter had been exploring a remote section of Rising Star Cave in South Africa's Cradle of Humankind World Heritage Site on Friday, September 13th 2013, when they made the exciting discovery.

Less than two months later, in early November, a base camp had been erected and excavation of the remains had begun.

As the bones were located in a difficult to access area, past a tight 18 cm (7 inch) squeeze, a crack team of small, mostly female, cavers with special archaeological/paleontological and excavation skills were brought in to help.

On the very first day of entering the fossil chamber the team recovered a hominid fossil in remarkably good condition.

Three weeks later, they had recovered over 1,200 specimens.

"We don't have anywhere near [all of the fossils]. We haven't scratched the surface. This excavation will go on for decades." Lee Berger, Professor

The entire expedition was followed by a National Geographic which covered the events as they unfolded.

See more videos and read all the Rising Star Expedition posts on National Geographic.

It is expected that a scientific paper on the find would be prepared for publication in late 2014.

REMEMBER THE MARCH MEETING WILL BE IN CARLSBAD, NEW MEXICO!

And who is this intrepid caver?

GYPSUM CAVE PRIMER

No rock at all
But a mineral,
Gypsum's no rock aggregate
But a sulfate
Formed by inorganic processes
And deposited in thin traces
Of strata in the Permian Basin.
Water's transforming magic
Later created caves in it
10 to 20 times faster
Than caves of limestone,
Sculpting passage and dome
Beneath arid dirt.
If you break gypsum apart
It splits into four planes,
One of them perfect.
Its crystals can be transparent
But also white, grey, red, pink,
Brown, blue, pale yellow
Or rare alabaster black.
Gypsum caves are phreatic--
Water dissolving up from below--
Or vadose--water dissolving
Gypsum from high to low.
From sinkhole to resurgence
Most gyp caves are through-caves
Carved by water flowing through stone
After rain, even though
Rain is intense but rare and brief
In the arid plains gypsum caves
Grow beneath, above them
Thick cactus and mesquite.
Gypsum speleothems are numerous,
Created through miniscule cracks
Or deposited across stone surfaces.
Gypsum crystals, coral, powder, popcorn,
Drapery, rimstone dams, flowers--
All these and more, and more
No caver will ever discover.
Ceilings are decorated by pendants
Or are smooth as empty canvases
Not yet painted by the force of water
That can sculpt a cave miles long
And fill it with the music of bats
Returning, leaving, and living there.
Though limestone's millions of years
Allows for cave development
That endures for eons
Gypsum caves are short-lived:
100,000 years is old.
The depths of gypsum caves are less
Than ancient limestone but often resemble
Geodes reflecting our lights back
Glowing like stars in the moonless night.
Gypsum caves have many entrances
Unlike the few of limestone.
We enter and exit them crawling
Like the winds that slacken through them.
Beauty unexpected and sudden gleams
From gypsum caves the more astonishing.
Cavers who don't respect gypsum
Cave deep in their ignorance.

(c) 2014, Steve Beleu, Central Oklahoma Grotto

Crashed Tanker Spills Fuel into Kentucky Cave

February 3, 2014
CAVING NEWS http://cavingnews.com/20140203-crashed-tanker-spills-fuel-kentucky-cave

The remains of a tanker that crashed recently, spilling its load of gasoline into a Kentucky cave. *Photo via Kentucky Department of Environmental Protection*

Kentucky Department of Environmental Protection crews are working with cavers after a fuel spill late last week.

Early on the morning of January 30th 2014, a gasoline tanker truck left the pavement of US Highway 27 and rolled down an embankment just south of Burnside in southern Pulaski County.

Due to a considerable delay between the time of the accident and when it was finally reported, most if not all 31,000 liters (8,200 gallons) of gasoline had already leaked out of the tanker by the time emergency personnel arrived on the scene.

The fuel had flowed overland to a gully and several hundred feet over frozen ground to a swallow hole, believed to be connected to the Sloan's Valley Cave system.

Efforts to clean up the fuel remaining on the surface are underway, but the majority is thought to now be in the cave and groundwater.

(continued on page 7)

Although six cave entrances were checked and no fumes were detected, dangerous conditions inside the cave could exist inside. Several sumps exist along the base level stream passage and the gasoline is expected to be trapped on top of the water for a significant period of time.

Fuel vapors may make self-contained breathing apparatus a necessity to enter the cave and there is also the potential for an explosion.

Signs have been posted at the entrances warning of the potential hazardous conditions.

In the future, before caving in Sloan's or Neely's Creek please obtain the latest information from the Kentucky Division of Water.

For more information contact the Environmental Response Team at 800-928-2380.

Two Fossil Species of Sucker-Footed Bats Discovered in Sahara

Feb 5, 2014 by Sci-News.com

Paleontologists have described a new extinct genus and two fossil species of the bat family Myzopodidae from several fossilized jawbones and teeth discovered in the Sahara desert, northern Egypt.

Today, Myzopodidae consists of two extant species – the Madagascar sucker-footed bat (Myzopoda aurita) and the Western sucker-footed bat (Myzopoda schliemanni).

In contrast to almost all other bats, these bats don't cling upside-down to cave ceilings or branches. Sucker-footed bats roost head-up, often in the furled leaves of the traveler's palm, a plant in the bird-of-paradise family. To stick to such a smooth surface, the bats evolved cup-like pads on their wrists and ankles. Biologists previously suspected the pads held the bats up by suction, but recent studies have demonstrated the bats instead rely on wet adhesion, like a tree frog.

Today, these bats live nowhere outside Madagascar, but the newly discovered bat fossils show that hasn't always been the case.

The study, published in the journal PLoS ONE, is the first formal description of Myzopodidae in the fossil record.

The discovery shows that, like many island-dwelling, relict species, sucker-footed bats have not always been confined to their present range – they once swooped through the African skies.

"We've assumed for a long time that they were an ancient lineage based on DNA sequence studies that have placed them close to very old groups in the bat family tree," said study co-author Dr Nancy Simmons from the American Museum of Natural History.

The two new species, named Phasmatonycteris phiomensis and Phasmatonycteris butleri, date to 30 and 37 million years ago, respectively, when the environment was drastically different.

"Northern Africa was more tropical and was home to a diverse range of mammals, including primates and early members of the elephant family," Dr Simmons said.

"The habitat was probably fairly forested, and there was likely a proto-Nile River, a big river that led into the ancient Tethys Ocean. The fossilized teeth imply that, like their living relatives, the ancient bats fed on insects," added lead author Dr Gregg Gunnell of the Duke University Lemur Center.

"It's impossible to know from the fossils if the extinct species had already evolved their characteristic sucker-feet, but the teeth shed light on another aspect of bat evolution."

The presence of sucker-footed bats in Africa at least 37 million years ago supports the theory that this family is one of the most primitive members of Noctilionoidea, a bat superfamily that now dominates South America.

"We think that the superfamily originated in Africa and moved eastward as Gondwana was coming apart. These bats migrated to Australia, then actually went through Antarctica and up into South America using an ice-free corridor that connected the three continents until about 26 million years ago," Dr Gunnell said.

According to this hypothesis, the sucker-footed bat fossils showed up right where scientists expected to find them: at the literal and figurative base of the Noctilionoidea family tree.

"Now, we can unambiguously link them through Africa," Dr Simmons concluded.

Smithsonian Channel special on White Nose Syndrome

Submitted by Duane DelVecchio

Was watching the Smithsonian Channel at a friends house and they had a special that they published on White Nose Syndrome. Below is the synopsis:

Killer in the Caves

There's a killer stalking the caves of North America, from New York, to Vermont and into Canada. Seemingly overnight, a disease known as white-nose syndrome is wiping out bats by the millions. In a race against time, bat expert Dr. DeeAnn Reeder and wildlife biologist Greg Turner search for the cause of and a cure for this mysterious fungus. Scientific ingenuity and groundbreaking technology may be the only hope to crack the case before an entire species is driven to extinction. One Hour Long.... DVR it if you can!

Future Air Times are:

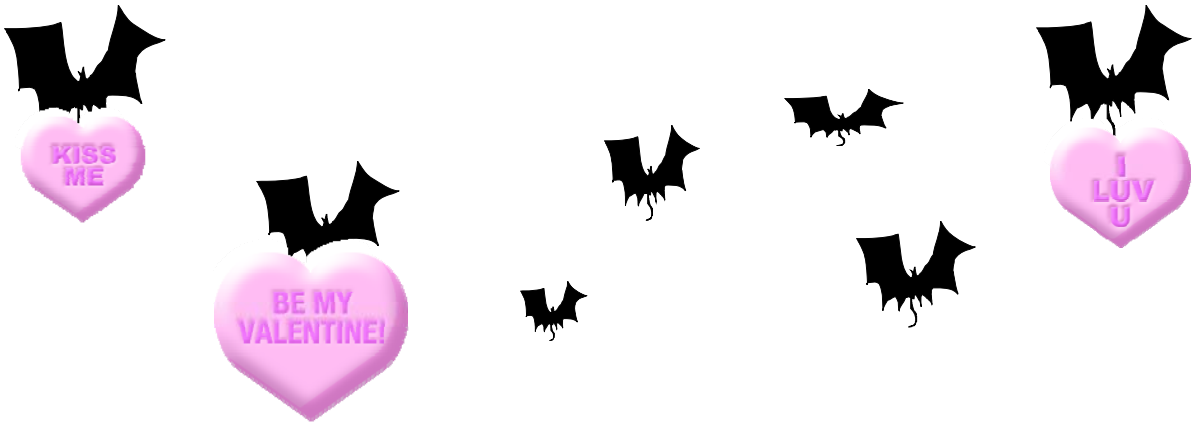
Schedule

- 6:00am Thursday 03/06 /2014
- 8:00pm Wednesday 03/12 /2014
- 11:00pm Wednesday 03/12 /2014

*** ALL TIMES ET/PT**

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 FEBRUARY meeting will be
At the home of John VanDyke.
Friday, February 14, 2014.



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