CENTRAL
OKLAHOMA
GROTTO
OF THE NATIONAL
SPELEOLOGICAL SOCIETY,INC

C.O.G.nizance

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The December meeting of the Central Oklahoma Grotto will be held Friday, December 14, 2012, at 7:00 p.m. The meeting will be.at the

You better be good COG'ers or Cave Santa won't leave you any goodies under the mud shelf!!

ANNOUNCEMENTS

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

*The December meeting of the Central Oklahoma Grotto will be held Friday, December 14, 2012, at the home of John and Sue Bozeman.

Don't forget the Christmas Party at the Bozemans!

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
Professional Lysol® Antibacterial All-purpose Clean

MINUTES

Central Oklahoma Meeting

Notes from the meeting 11/9/2012

Attending were John and Sue Bozeman, John Talbot, Dale Amlee, and JT and John Van Dyke.

Called to order 8:09 pm, Dale A presiding.

Old Business:

Publication and the Brokenhorn map; Dale A is trying a new, free software for mapping called Ink Scape. He said he initially had difficulties resizing objects and labels, and while he did figure it out, it seems painstaking.

New Business:

An individual contacted the Bozeman's regarding caves near Whitlaw. This contact is due to a pipeline being laid in the area and the entity apparently wanted to avoid the natural caves. John and Sue provided info.

Trip Reports:

A team (Jon Woltz, Dale Amlee and Sue Bozeman)worked Greene's Cathedral. One critical note -- the individuals who did the original survey and notes are no longer actively caving. The team (recent) was able to do 250-300 feet inside and overland work.

The plan is to return to Greene's next Saturday providing 1 -2 more cavers are ready, willing, and able.

(This spurred a sidebar about the next publication. John B, Dale, and Sue think it's possible to do a pub containing BOTH Greene's Cathedral and Broken Horn. John B pointed out that the resurgences in that entire area are very similar, and this might be a possible subject to write about in the pub.)

John Talbot provided the Treasurer's Report.

Because of the low turn-out, the next meeting will have to include the election of offices of the Grotto for next year. Next meeting will be the Annual Holiday Bash at the Bozeman's, scheduled for ..... DECEMBER 14th !!!!!!!!!!

Meeting adjourned at 8:50 pm.

TREASURER'S REPORT

INCOME			EXPENSES		
Dividends	$	0.02			
TOTAL	**$**	**0.02**	**TOTAL**	**$**	**0.00**
CASH ON HAND	**$**	**118.10**			
CHECKING	**$**	**371.02**			
SAVINGS	**$**	**2,134.12**			
TOTAL	**$**	**2,623.24**			

TOTAL FUNDS AS OF 11/08/2012 $2,623.24

PREPARED BY TREASURER JOHN TALBOT

TRIP REPORT

Greene's Cathedral
November 17, 2012
Cavers: Jon Woltz and Sue Bozeman, Dale Amlee
Written by Dale Amlee

It was a mild November day, good weather for caving, and also the start of deer hunting season here in Oklahoma. The three of us met at the ranch house, changed into our caving gear and made a quick plan of attack for our cave survey task for the day. Greene's cathedral is a challenging cave survey because of the tremendous span of time that has passed. The earliest survey notes date from the late 1990s, and several of the cavers that were involved in those surveys are not active members any longer, and the ones that are have been struggling hard to remember the details of the cave passages that were mapped back then. Some survey notes and sketches have been lost, others need to be re-anchored to known survey points.

That was our main focus of the day: there were some survey data points from years past that had been entered into the Compass mapping database, but the sketches of the passages were lost. So our mission was primarily to obtain accurate sketches that could be tied back to the original survey data points.

We started off the survey by going in through the Narthex, located the last points of our previous effort, and continued surveying down the passage. We were not doing backsights, because the prior survey notes had accurate dimensions, we just needed new sketchwork. The passage wiggled along, then we encountered an area with numerous large breakdown boulders, with the stream passage snaking beneath and the more open passage going up over the boulders. We took the high road, surveying along the top of the breakdown for another 50 feet or so until the breakdown area terminated and we could not continue. The old notes showed that the streambed was the through passage, but when we backtracked to a point where we could climb down to it, we had doubts about our ability to climb back up. It was a tight vertical opening, with the largest gap occurring at an area with about an 8 to 10 foot drop. We decided instead to back out of this arm of the cave, and go in through another exit to come at this area from the other intersecting direction.

We got in through Pincushion exit, finding out in the process why it was named pincushion. Lots of thorns, porcupine quills, and other sharp pointy things over which we had to crawl to get in. We continued to map our way through this passage and eventually came to a very dramatic cave feature that I had never seen in any other gypsum cave. There is a tall column of rock in the middle of

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the passage which essentially provides a means to drop down from one level to another. As we crawled along the passage we first encountered the top of the column in front of us. Climbing down in a roughly circular fashion around this column, we were able to descend to the streambed which, according to the notes, connected to the previous passage we had been in a short while ago. Unfortunately we did not have those detailed notes with us at the time. Jon and I pushed forward about 40 feet down the passage but, not seeing any connection, decided it must be far ahead and chose to quit our survey trip for the day. Later on, checking the more detailed notes back at the surface, we realized that we had probably come within 20 or 30 feet of the connection point. Had we known we were that close, we would have just kept surveying to close the loop on that passage. Instead, we may need to finish of that bit of detail on another trip.

POTPOURRI

Greene's Cathedral videos from Nov. 17, 2012 trip

I put together a web page with a slideshow and videos from the Nov. 17 cave survey trip to Greene's Cathedral; here's the URL:

https://sites.google.com/site/woltzj1234/home/greenes

If anyone would like any of the photos full size, you can grab them from my Google photo gallery (and I'm happy to send anyone the whole batch in a zip file, too).
Jon W.

The Editor:
The pictures are excellent and the videos are also neat. There are 3 videos. One shows a large mat of hibernating myotis. The second is a 13' or longer pillar, and the third is Sue playing the Musical Tones!

White-Nose Syndrome Bat Recovery May Present Challenges Similar to Those in Some Recovering AIDS Patients

Posted: 19 Nov 2012 09:30 AM PST

Bats recovering from white-nose syndrome show evidence of immune reconstitution inflammatory syndrome (IRIS), according to a hypothesis proposed by the U.S. Geological Survey and collaborators at National Institutes of Health. This condition was first described in HIV-AIDS patients and, if proven in bats surviving WNS, would be the first natural occurrence of IRIS ever observed.

IRIS is a syndrome in which an organism's immune system, having been suppressed for a time, reactivates and, perceiving a serious infection around it, goes into overdrive resulting in severe inflammation and tissue damage in infected areas.

In both human patients with HIV-AIDS and bats with WNS, the functioning of the immune system is severely reduced. For humans, this occurs when the HIV virus attacks the patient's white blood cells, and for bats, this occurs during normal hibernation. For both humans and bats, IRIS can be fatal.

"The potential discovery of IRIS in bats infected with white-nose syndrome is incredibly significant in terms of understanding both the reasons for bat mortality and basic immune response," said USGS Director Marcia McNutt. "This discovery could also prove significant for studies on treatment for AIDS."
IRIS was first described in humans with HIV-AIDS after patients with low counts of helper T lymphocytes, the type of white blood cells the HIV virus attacks, had increases in those cell numbers following treatment with antiretroviral therapy. In some patients, who had secondary bacterial or other opportunistic infections due to their suppressed immune system, their condition significantly worsened as the restoration in immune cell function resulted in an over-response to pre-existing infection and substantial damage to healthy tissue.

In bats, IRIS might be a result of changes in immune system function during hibernation. During hibernation, all internal systems for the bats enter a reduced state, including the immune system, so as to conserve resources. This reduced immunity allows Geomyces destructans, the fungus that causes white-nose syndrome, to spread unchecked over the wings, muzzle, and ears of bats eroding through skin.

If they survive the fungal infection through winter, when the bats emerge in the spring, they face a new challenge—intense inflammation at sites of infection with G. destructans. This inflammation in the wings can be so severe that it contributes to death.
Scientists from the USGS National Wildlife Health Center and National Institutes of Health propose this sudden reversal of immune suppression in bats with WNS, accompanied by intense inflammation is a form of IRIS.
Although never before observed outside a clinical setting, there is strong evidence that the inflammation observed in bats with WNS is IRIS.

"We see strong similarities between human IRIS and the pathology associated with WNS , with potentially fatal outcome in bats," said USGS lead researcher Carol Meteyer. "We hope that these findings will stimulate more experimental studies that yield insight into the role of the immune response during IRIS in humans as well as hibernating bats."

Even as the G. destructans fungus spreads throughout the bat's body, there is no obvious inflammation in response to this hibernation-dependent fungal skin infection. This lack of inflammatory cell response is consistent with hibernation-induced inhibition of immune cell activity as the body temperature of hibernating bats drops to ambient temperatures 35-50 degrees Fahrenheit (2-10 degrees Centigrade).

In addition, inflammation is not seen until the bat"s body temperatures reach their active levels of 93-102 degrees Fahrenheit (34-39 degrees Centigrade). These temperature levels indicate that the bat's internal systems have come back online, including the immune system. Only then is the inflammation observed, and only in areas where the G. destructans fungus has taken hold. This behavior is consistent with IRIS observed in human HIV-AIDS patients.

The report, entitled "Pathology in euthermic bats with white nose syndrome suggests a natural manifestation of immune reconstitution inflammatory syndrome," is published in the November issue of the journal Virulence.

3 Preludes to Caving: The Mystery, The Unknowable. #1

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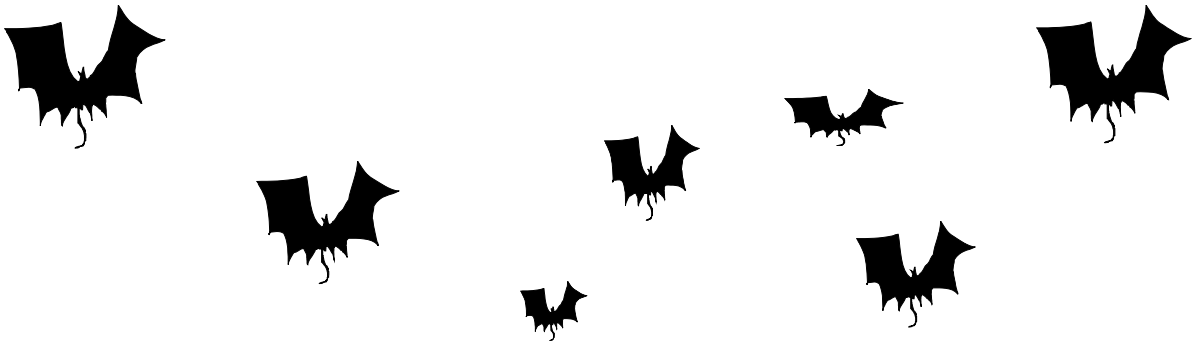
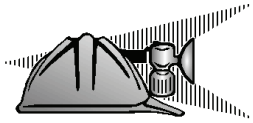
Central Oklahoma Grotto is a non-profit organization and a chapter of the NSS (National Speleological Society), Cave Avenue, Huntsville, AL., 35810. Dedicated to cave conservation and safety, C.O.G. published general information in a monthly newsletter ($6.00/year) and detailed cave surveys and related 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 December meeting will be
At Sue and John Bozeman's house
Friday, December 14, 2012.





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