



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 Report	
No Reports	
Potpourri	
Bat feces: A reliable source of climate change	4
'Incredible' Ice Age Cave Network Found	
Below Montreal	5

The December meeting will be Friday, December 8, 2017 at 7:00 p.m. The meeting will be at the home of the John and Sue Bozeman.




Reprinted from: https://www.google.com/search?q=caving+cartoons+for+december&tbm=isch&source=iu&ictx=1&fir=7JHzD_1mUxqw4M%253A%252CCZI3Zr7wMBWxEM%252C_&usg=__6BuN0PcC_Cu_A7UqJ8TJbiuXSE8%3D&sa=X&ved=0ahUKEwicuJqAnPfxAhUh5oMKHRfqBMkQ9QEIKzAA#imgrc=vYx0m83XY2pmqM

ANNOUNCEMENTS

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

*The December meeting will be Friday, December 8, 2017 at the home of John and Sue Bozeman.

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>

For the latest information about WNS visit this site:

<https://www.whitenosesyndrome.org/>

MINUTES

CENTRAL OKLAHOMA GROTTO

Minutes of the meeting of November 10, 2017

Host: the home of the Bozemans

Attendees: Dale Amlee, John and Sue Bozeman, John Talbot, John Van Dyke, Jon and Kelley Woltz, The Skillful Ogre.

The Honorable Jon Woltz began the meeting at 8:10

NEW BUSINESS

- We talked about our discovery/GPS trip to the lands of Jason Vogt. We saved the waypoints of 7 entrances, which are probably 2 caves total. We look forward to meeting him and his family in person.
- We had our annual "elections" with these ever-predictable results –

Dale Amlee – Chair
 Jon Woltz – Vice Chair
 John Talbot – Treasurer
 Steve Beleu – Secretary and Sergeant at Under-arms

- We talked about why all the wild pigs in our state must be exterminated because of their caver-threatening behavior.
- We talked about a proposed power transmission line which could pass either above or too close to Cattle Cave and threaten its existence.

TREASURER'S REPORT

John Talbot gave his report.

We concluded the meeting at 9:00.



TREASURER'S REPORTS

NOVEMBER 2017 TREASURERS'S REPORT

INCOME		EXPENSES	
Dues	\$ 31.00	Postage	\$ 6.95
Dividends	\$ 0.01		
Publication sale	\$ 5.00		
Postage	\$ 7.00		
TOTAL	\$ 43.01		\$ 6.95
CASH ON HAND	\$ 256.75		
CHECKING	\$ 164.20		
SAVINGS	\$ 2,139.68		
TOTAL	\$ 2,524.62		

Balance as of 11/22/2017

PREPARED BY TREASURER JOHN TALBOT

TRIP REPORT

NO REPORTS FOR THIS MONTH

POTPOURRI

Bat feces: A reliable source of climate change

October 26, 2017

Source: University of South Florida (USF Health)
<https://www.sciencedaily.com/releases/2017/10/171026135336.htm>

People have long known that bat guano -- the polite term for what the flying mammals leave on the floors of caves where they live worldwide -- is a valuable source of fuel and fertilizer, but now newly published research from University of South Florida geoscientists show that the refuse is also a reliable record of climate change.

In a new paper published this week in the research journal *Scientific Reports*, USF geochemistry Professor Bogdan Onac and PhD student Daniel Cleary report that isotopes found in bat guano over the last 1,200 years can provide scientists with information on how the climate was and is changing.

The scientists examined bat guano from a cave in northwestern Romania to produce new insight into how the climate in east-central Europe has changed since the Medieval Warm Period, about 850 AD.

Nitrogen cycling within temperate forests is very sensitive to changes in the amount of winter precipitation received each year. When nitrogen isotopes change in response to variation in winter precipitation over the past 2,000 years, this signature is transferred from the soil to plant leaves to insect to bat and ultimately guano.

"Luckily for scientists, the statement 'you are what you eat' also applies to bats," Onac said.

Scientists frequently examine chemical records in natural substances to document how the climate has changed in the past, and to lend insight into how rapidly it is changing now. Scientists drill mud cores into the sediments under the oceans, ice cores in the Arctic and Antarctica, examine tree rings, or use the chemistry found in caves (stalagmites) as climatic proxies.

Bat guano is rich with nitrogen, and scientists know that nitrogen moves through the food chain and through animals, where it is returned to the environment. When bats return to the same location within a cave, guano piles beneath their roost can reach sizable dimensions. The researchers found in Murgurici Cave in Romania is a large three-meter pile of bat guano that has been accumulating for more than a thousand years.

Isotopic analysis of the guano pile in the Murgurici Cave resulted in a near annual record of winter precipitation for the region. The location of this cave in the foreland of the East Carpathian Mountains means winter precipitation is modulated by the North Atlantic Oscillation (NAO), with wetter conditions influencing the availability of nitrogen within the surrounding forest system. Using historical records of precipitation, a relationship between

winter precipitation and NAO phases was established. Through this work, past phases of the NAO could then be reconstructed back to 1600 AD, Cleary said.



'Incredible' Ice Age Cave Network Found Below Montreal

It stretches the length of 2 football fields
By Arden Dier

<http://www.newser.com/story/252465/ice-age-glaciers-ripped-apart-rock-heres-proof.html>

This 20-foot-high cave network has just been found beneath Montreal, Quebec. (Quebec Speleological Society)

(Newser) – At the end of the last ice age, glaciers rapidly receded across Canada, putting so much pressure on the land below that solid rock split apart. Perhaps nowhere is that more evident than a newly discovered cave system some 20 feet below Montreal, Quebec. Suspecting that a cave beneath a Montreal park expanded wider and deeper than anyone knew, Luc Le Blanc and Daniel Caron of the Quebec Speleological Society dug through soft limestone in October and found the "incredible" chamber, per the CBC. On the other side was a network of caves stretching the length of two football fields. It was shaped roughly 10,000 years ago as rock was pulled apart by glaciers, evident in rock wall outcrops that would fit like puzzle pieces into those across the expanse, littered by stalactites and stalagmites formed over millennia.

As Le Blanc tells the BBC, it's "the kind of discovery you make once in a lifetime." But it wasn't without challenges. Once through the limestone ceiling of the network, Le Blanc and Caron traversed a rock wall and found themselves at the end of a sloping passageway halted by deep water. "The walls are perfectly vertical. It's just beautiful," Le Blanc says, per the CBC. "The walls just opened through the pressure of the glacier above about 15,000 years ago," he adds, though officials put the date at 10,000 years ago. Le Blanc and Caron have since used a boat to explore all but 50 yards of the cave network. *National Geographic* reports they're waiting until February, when the water table lowers, to explore it in full. That's something the public will also be able to do, once efforts are made to protect the stalactites and stalagmites, per the CBC. (See what cave stalagmites reveal about Iran.)



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: cave-moose@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 b
At the home of John and Sue Bozeman
Friday, December 8, 2017



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