

ANNOUNCEMENTS

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

*The June meeting will be Friday, June 16, 2017 at the home of Steve Beleu.

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 May 12, 2017

The May meeting was at the dwelling site of Dale Amlee.
Attendees: Dale Amlee, Anne Ault, Sue and John Bozeman, John Talbot, Carol and Dale Town, John Van Dyke, The Skillful Ogre

Exalted Assistant Grand High Potentate Dale Amlee began the meeting at 7:50

OLD BUSINESS –

1. Those who caved on April 15 attempting to locate a cave that John Bozeman remembered finding somewhere in northwestern Oklahoma discussed their frustration in

not locating it. COG may hire a psychic to help find it.

We gave \$100 to the travelling *CaveSim* exhibit, which has come to The Land of Okies recently. See <https://www.cavesim.com/>

NEW BUSINESS –we didn't have enough cavers—three minimum—for a cave trip in May.

TREASURER'S REPORT – Treasurer Emeritus John Talbot gave his report.

We ended at 8:32 



TREASURER'S REPORTS

JUNE 2017 TREASURERS'S REPORT

INCOME		
Dividends	\$	00.01
Dues	\$	12.00
TOTAL	\$	12.01
CASH ON HAND	\$	238.62
CHECKING	\$	128.14
SAVINGS	\$	2,139.14
TOTAL	\$	2,505.90

EXPENSES

Balance as of 6/5/2017
PREPARED BY TREASURER JOHN TALBOT

TRIP REPORT

No Trips taken in May to write a report about.



POTPOURRI

Report from Oklahoma Bat Coordinating Team (part 2)

Continuing article from last month's newsletter

So, we discussed part 1 of the report last month and with this last segment will address what is recommended as best practices and the four points contained within as recommended and agreed upon by the Oklahoma Bat Coordinating Team (OBCT).

What are best practices: Best practices are recommendations or guidelines that are established so that a 'norm' for that activity is set. In this case, Oklahoma now has best practices on addressing WNS and bat research and experimentation in our state.

The goal states as: The following recommendations is to protect the diversity of Oklahoma's bats and other cave wildlife and to minimize the spread of WNS by humans.

This is set by four objectives which are summarized as:

1. Avoid winter disturbance at bat hibernaculum's
2. Increase year-round protection for all roosts (maternity, hibernacula)
3. Promote minimally invasive research to better understand bat needs and status trends
4. Educate the public to understand the values of conserving bats.

Objective 1 has three subparts: A) All collections must have a Scientific Collectors Permit. This is not new but does allow a more detailed look at what is going on, what objectives are being sought, and how often are disturbances to the cave taking place. The ODWC (Oklahoma Dept. of Wildlife Conservation) is the one that allows these permits. It will set limits to cave disturbances and set new statewide guidelines on the WNS protocols of decontamination. B) Wildlife Dept. owned and managed lands that have caves will be closed to the public. Research in such areas must obtain permission from ODWC. C) ODWC strongly recommends that other cave owners and/or managers minimize access to bat hibernacula during the winter and to reduce WNS monitoring to every other year.

Objective 2 has five subparts: A) Much like part A above but stipulates that multi-year research will be reviewed by a team of biologists before approval. B) Experimental treatments of bats or caves will not be approved on Wild-

life-managed lands. C) Continual research on other methods to protect caves on Wildlife Dept. lands will be ongoing. D) Recommends that other cave managers or owners minimize access to bat roosts and that all follow decon procedures set forth by the National WNS committee which includes clothing/equipment never used in a previous cave. E) Since the majority of OK caves are privately owned, ODWC will conduct outreach to inform landowners about WNS and how it is spread and ways owners can protect roost locations.

Objective 3 has two subparts: A) ODWC will initiate a pilot citizen-science based acoustic bat survey for the state. B) ODWC will continue seeking proposals to better understand bat needs and trends in OK.

Objective 4 has four subparts: A) ODWC will provide info and updates about OK Bat diversity, WNS, etc... through news releases, Facebook, and e-newsletters. B) ODWC will involve members of the Ok Bat Coord. Team to facilitate info flow about OK's bat and disease surveillance efforts. C) ODWC promotes importance of bats through the Selman Bat Watch. D) ODWC will promote and participate in watchable wildlife events that showcase Oklahoma bats.

It is important that this may be binding to the ODWC, it is recommended to others though not binding in any way. Private land owners still have their say on what happens on their property. These guidelines were set as there are experiments that are starting to be done that don't consider other cave life while working on the eradication of WNS. If you bleach the cave you may take out the Pd, but what happens to micro-life inside like bacteria / fungi / microbes that may play part of the cave ecosystem? There are lots of scenarios that are present and all are being quickly presented while funding is available. Oklahoma has taken the approach more-or-less of let's let nature go its course and we'll see scientifically what works rather than make our caves a giant field test which may or may not work or which may bring about other problems not thought of initially.

The complete report is available on the COG website if you wish to read the full publication.



Report by: Duane Del Vecchio
Representative of COG to OBCT.



These Snakes Hang From Cave Ceilings and Help One Another Catch Bats

by Maggie Fox

<http://www.nbcnews.com/news/us-news/these-snakes-hang-cave-ceilings-help-one-another-catch-bats-n765276>

Imagine a cave filled with snakes and bats. Then imagine the snakes hanging from the ceiling of the cave to catch the bats as they try to fly out. Then, just in case that's not enough, imagine the snakes are helping each other. Vladimir Dinets of the University of Tennessee says he saw boas in a Cuban cave coordinating as they hunted bats.

Cuban boa snakes hunt fruit bats by teaming up to hang from a cave entrance and snag the bats Courtesy Vladimir Dinets

While wolves, lions, dolphins and several other species of animals coordinate and hunt in sophisticated ways, such behavior has never been seen in snakes, Dinets, a zoologist, said. "The present study suggests that boas take the positions of other individuals into account when choosing the hunting location," he wrote in his report, published in *Animal Behavior and Cognition*.

"This is the first scientifically documented case of coordinated hunting by snakes."

Dinets said he noticed the boa behavior when he was visiting the cave in Cuba. He came back several times to watch was going on.

"Some of the boas entered the passage that connected the roosting chamber with the entrance chamber, and hunted by suspending themselves from the ceiling and grabbing passing bats."

"There is this cave where the bats fly in and out and the boas form kind of a fence across the cave to catch them," Dinets told NBC News.

The snakes obviously knew when the bats were coming and going and got into position ahead of time, Dinets said.

"They position themselves in a way that allows them to form a barrier across a cave passage," he wrote.

"After sunset and before dawn, some of the boas entered the passage that connected the roosting chamber with the entrance chamber, and hunted by suspending themselves from the ceiling and grabbing passing bats."

Sometimes there would just be one snake, and Dinets never saw a snake catch a bat when it was alone. The more snakes, the more successful they were at catching the bats.

"Visual observations suggested that most bats were able to avoid flying near boas when there were one or two boas present, but with three boas present the bats had to fly either within striking distance from one of them (often colliding with the boas), or very low above the passage floor," he wrote.

The boas, which are harmless to people, appeared to very deliberately space themselves out, Dinets said.

"I guess they can see each other," he said. "They hunt by vision."

Sara Ruane, who specializes in snake biology at Rutgers University, says it's plausible but she doubts the snakes are pack hunting like wolves would.

"It appears that these boas are positioning themselves to optimally forage on the bats and in doing this, they are taking into account where other boas have already positioned themselves and are then positioning themselves with respect to that in a way that likely maximizes their own chance of catching bat," said Ruane, who was not involved in the study.

"There are sea snakes which have been shown to hunt in packs."

"It's not as though they are sharing a bat, or helping each other directly catch a bat by repositioning themselves, or doing anything altruistic with respect to each other," she added.

Ruane says it will be an interesting topic for more research.

Dinets says he wants to see more, too.

"I wasn't surprised because there is a lot of stuff that people don't know about," he said.

"There are sea snakes which are shown to hunt in packs," he said.

He'd also like to go watch snakes in the Galapagos, which have been filmed hunting in large groups. They may be coordinating, but that hasn't been shown, Dinets said. 🐍

Cave House Rebuilt

By Jelena iri

Nature & Travel

June 02, 2017 10:31

<http://icelandreview.com/news/2017/06/02/cave-house-rebuilt>

An old house inside Laugarvatnshellir cave in Southwest Iceland has been reconstructed and will be open to tourists this summer, RÚV reports. Two children were born in the cave around a century ago. The cave received a royal visit in 1921 by King Christian X of Denmark, the only king of Iceland. The king was served a traditional Icelandic dish of skyr (resembling thick yogurt) and cream by the home's inhabitants.

"This was inhabited just under 100 years ago. Here there was a young couple who moved in during 1910 and lived here for one year, Indriði and Guðrún, and so it happened in 1918 that another young couple moved in here, Jón and Vigdís, and they lived here for four years. And during this time, they had three children, two of them born inside the cave," states Smári Stefánsson, who took part in the reconstruction.

According to Smári, it was during the wintry April of 1919 that Jón and Vigdís had their first son. Jón rode for eight hours on horseback through heavy snow to find a midwife.

As was common in the Icelandic countryside during that period, livestock kept the home warm. The cow was kept behind a partition, and there was an opening into the next cave where sheep and horses were kept. A coal stove also heated the cave throughout the winter.

The house was located along a well-traveled route, so the inhabitants started selling refreshments to

(Continued on page 5)

travelers. Christian X of Denmark's visit occurred in 1921, when he paid 30 krónur for his skyr and cream, recounts Smári. 

A different cast of characters on location at King Arthur's Cave

Sunday, 4 June 2017

By Ross Gazette reporter in Feature

<http://www.rossgazette.com/article.cfm?id=109293&headline=A%20different%20cast%20of%20characters%20on%20location%20at%20King%20Arthur%E2%80%99s%20Cave§ionIs=news&searchyear=2017>

An atmospheric cave, hidden amongst woodland on the Doward may star as a location in the upcoming film King Arthur, but it has always been one of Herefordshire's hidden gems, and as the weather gets nicer, it makes a perfect picnic spot.

The Doward is a landscape steeped in history, and its narrow, twisty lanes, forested slopes and tumble-down ancient walls suffuse it with a strange, sometimes unsettling atmosphere. King Arthur's Cave, a dark void in a mass of carboniferous limestone, 345 million years old, epitomises this. Accessed via a narrow track, the cave looks out into a venerable oak, ash and beech woodland which undulates down to the River Wye rushing below.

While this may set the perfect backdrop for the playing out of dramatic scenes – such as the recently filmed King Arthur – there is a regular cast of characters on the set which are worth watching too. On the breeze above, listen for blackcaps and pied flycatchers, and watch for the flash of red of a great spotted woodpecker.

Woodland butterflies, including pearl bordered fritillary, wood white and grizzled and dingy skippers flit through the dappled shade, while rare orchids (including bee, fly, greater butterfly and green winged orchid) have all been seen in this landscape. The caves dotted through the landscape are home to colonies of several

species of bats (which roost there during summer days and hibernate through winter.)

Herds of fallow deer roam the Doward too – today undisturbed by medieval hunting parties – while dormice, foxes and badgers and numerous other small mammals scuffle unseen through the woodland scrub.

Though the specific historical significance of King Arthur's Cave is unknown, through a jumbled Dark Ages translation, an older form of "Doward" can be loosely linked with the name "Arthur" (Deu Arth), which probably explains why this cave is reputed to be (along with hundreds of other British localities!) where King Arthur lies sleeping.

More interesting perhaps, or at least more factual, is solid evidence that the cave served as a shelter all the way back to neolithic times. Remnants of such occupants as giant elk, mammoths, woolly rhino, horse, cave bear and lions have been discovered there, along with flints used by hunters of the paleolithic and mesolithic eras. These people were the first of many to enjoy the security of this cave, whose 'cosy' recesses extend into the depths of the ancient hill.

Many areas within the Doward are managed by Herefordshire Wildlife Trust. The Trust's current appeal is raising funds to continue the management and increase the accessibility of their 55 reserves. To donate, please visit: www.justgiving.com/HerefordshireNatureReserves.



CAVES IN THE UNITED STATES– PART 1

C C F S D B E N K M E R Y V H
 A A H D J L Z B E B V X M T E
 R V L N A O B R V I A R V V W
 L E O I N W A A A G C G A A V
 S O M W F H K C C B M C B A W
 B F A E Z O E K L O S H U O O
 A T T H Z L R E A N A E R N B
 D H X T K E C N D E H E N P B
 C E W F D C A C I C C S E U L
 A M R O U A V A R A K E T T X
 V O R E E V E V B V C C C S W
 E U I V R E C E N E A A A A J
 R N A A I R M A N C L V V P L
 N D X C L T Y J U C B E E E F
 S S X B L U F F D W E L L E R

- AIRMAN'S CAVE
- APE CAVE
- ARNOLD LAVA TUBE SYSTEM
- BAKER CAVE
- BIG BONE CAVE
- BACK CHASM CAVE
- BLANCHARD SPRINGS CAVERNS
- BLOWHOLE CAVE
- BLUESPRINGS CAVERNS
- BLUFF DWELLER'S CAVE
- BRACKEN CAVE
- BRIDAL CAVE
- BURNET CAVE
- CALIFORNIA CAVERNS
- CARLSBAD CAVERNS
- CAVE OF THE MOUNDS
- CAVE OF THE WINDS
- CAVE WITHOUT A NAME
- CHEESE CAVE

(know what states they're in? See next month)

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.co>

The June meeting will be at the home of Steve Beleu
Friday, June 16, 2017



Central Oklahoma Grotto
Dark Caverns Writers Guild
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