



CENTRAL
OKLAHOMA
GROTTO
OF THE NATIONAL
SPELEOLOGICAL SOCIETY, INC

C.O.G.nizance

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The October meeting will be Friday, October 14, 2016 at 7:30 p.m. The meeting will be at the home of Art and Paula Wallace.



Trick or Treat! After you give me some candy, can I check to see if this cave has any passages to survey?

ANNOUNCEMENTS

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

*The October meeting will be Friday, October 14, 2016 at the home of Art Wallace.

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

We had no report.

Minutes of the meeting of September 9, 2016

We concluded the meeting at 8:40

Host: the luxury home of Kelley and Jon Woltz
Attendees: Dale Amlee, Sue Bozeman, and S. Belevu
Guest: Scott Diehl, Oklahoma City

ADDENDUM: here is a photo of the famous Weatherford sinkhole which we have discussed surveying and mapping; it may be dangerous to enter—

The Honorable Dale Amlee began the meeting at 8:12



OLD BUSINESS – Continuing our agreement and work with BCI, Sue sent them the approximate locations of the caves we have worked in that have significant bat populations. They have also requested historic and current batcounts for them, which she will also send them now that we've discussed doing so.

NEW BUSINESS – none

TREASURER'S REPORT

TREASURER'S REPORTS

	October 2016	TREASURERS'S REPORT	
INCOME			EXPENSES
Dividends	\$	00.28	
TOTAL	\$	00.28	
CASH ON HAND	\$	190.62	
CHECKING	\$	336.90	
SAVINGS	\$	2,138.58	
TOTAL	\$	2,666.10	
			Balance as of 10/8/2016 <i>PREPARED BY TREASURER JOHN TALBOT</i>

SUZNUZ

There have been times when there is news to share with the club that doesn't fit in any category, so this new section has been added.

Steubenville, Ohio: Caver Sam Martinez's wife, Theresa died suddenly on the morning of September 11, 2016, after a long battle with cancer. She is survived by her son, Joseph Martinez, who has graduated with his Master of Arts (Theology -- does a lot of translations from ancient languages) from Franciscan University of Steubenville. Condolences and commiserations from us all. [Personal observation: Theresa was amazing. Throughout these past months, she did handwork for relatives -- quilts and embroidery -- and made her own clothing, cooked and cleaned when she could and dealt with innumerable physical problems admirably. We emailed every day and shared happy moments and gritching comments about everything from food to politics. She cherished Joseph and was happy that he was finding his way through the University and that he seemed happy in his milieu. I miss her. -- Sue Bozeman]

Bartlesville, Oklahoma: Joe Looney shared some pun-ishments in a recent letter. I enjoyed them -- Joe groans when he sees cave names or article titles that play on words -- like "Corn Prone" as my title for his article on the initial exploration of the Corn Cave area in an old Underground. Hence, the following:

1. At a local ranch, they have a guy who takes care of the breeding stock. "He is the one for whom the Bulls Toil."
2. At Joe's local bar is a lady who takes lemon flavored ice cream and mixes it with some high-priced Mexican booze. She calls the drink a "Tequila Mockingbird".

That's all folks!

TRIP REPORT

There were no trip reports submitted for this newsletter.

POTPOURRI

Submitted by Steve Belev

The Burden of Rabies

Learn how to help prevent rabies, a deadly virus that threatens the health of people and animals.

Rabies is a dangerous virus that is spread through the saliva of animals sick with rabies. Anyone can get it if they handle or get bitten by an animal that has the disease.

Rabies in the U.S.

Rabies continues to be a serious threat to the health of people and animals. Every year, about 40,000 people receive a rabies prevention treatment called post-exposure prophylaxis (PEP) because they had contact with potentially rabid animal.

More than 90% of all rabid animals reported to CDC each year occur in wildlife. The animals that get rabies the most are raccoons, skunks, foxes, and bats. However, most people in the U.S. get PEP due to close contact with domestic animals such as cats or dogs.

In the U.S., the animals that get rabies the most are raccoons, skunks, foxes, and bats. Rabies cases among dogs and cats reported in the U.S. from 2010 to 2014 gradually decreased.

View infographic and text description

Rabies in Cats

While dogs have historically been associated with spreading rabies to people, more cats than dogs are reported rabid in the U.S. each year. Cats are often in close contact with both people and wild animals, including those that primarily spread rabies, like raccoons and bats. Thus rabies may be more easily spread to people from cats.

Over the past few years, public health officials saw a small decrease in the number of reported cases of rabid cats. However, in 2014, over four times more rabid cats were reported than rabid dogs. Importantly, cat owners are less likely to visit a veterinarian's office, where they can get their cat shots that can keep it safe from rabies. According to the American Veterinary Medical Association (AVMA), only 55 percent of U.S. cat owners visited a veterinarian in 2011, a significant decrease compared with 64 percent in 2006. This is much less compared to dog owners (81 percent in 2011 and 83 percent in 2006).

Protecting You and Your Family

The best ways to protect yourself and your family from rabies is to:

***Vaccinate your pets and other domestic animals** (like cows, goats, sheep, and horses)

(Continued on page 4)

***Avoid contact with wild animals** – do not feed or handle them, even if they seem friendly. If you see a wild animal acting strangely, report it to animal control.

If you or someone in your family is exposed to a rabid animal, rabies can be prevented through a series of shots called **rabies post-exposure prophylaxis (PEP)**. If you are bitten by any animal (domestic or wild):

- **Immediately wash the wound well with soap and water and see a healthcare provider**
- **Contact animal control to assist in capturing the animal for observation or rabies testing**
- **Family pets can get rabies if they are bitten by rabid wild animals.**

Cats, dogs, and ferrets that have not gotten their rabies shots and are bitten by an animal may have to be quarantined for six months or euthanized. In general, pets have a higher risk of coming into contact with wild animals that may have rabies than people do. This increases the risk of rabies to us because of our close contact with our pets.

To help reduce this risk:

Visit your veterinarian with your pet on a regular basis and keep rabies vaccinations up-to-date for all cats, ferrets, and dogs.

Maintain control of your pets by keeping cats and ferrets indoors and keeping dogs under direct supervision when outdoors.

Spay or neuter your pets to help reduce the number of unwanted animals that may not be properly cared for or vaccinated regularly.

Call animal control to remove all stray animals from your neighborhood since these animals may be unvaccinated.

Do not feed or water your pets outside and keep your garbage securely covered. These items may attract wild or stray animals.



Decades of bat observations reveal uptick in new causes of mass mortality

Science News

<https://www.sciencedaily.com/releases/2016/01/160120111525.htm?trendmd-shared=0>

Date: January 20, 2016

Source: United States Geological Survey

Reports of bat deaths worldwide due to human causes largely unique to the 21st century are markedly rising, according to a new USGS-led analysis published in *Mammal Review*.

Collisions with wind turbines worldwide and the disease white-nose syndrome in North America lead the reported causes of mass death in bats since the onset of the 21st century. These new threats now surpass all prior known causes of bat mortality, natural or attributed to humans. A comprehensive study reveals trends in the occurrence and causes of multiple mortality events in bats as reported globally for the past 200 years, shedding new

light on the possible factors underlying population declines.

"Many of the 1,300 species of bats on Earth are already considered threatened or declining. Bats require high survival to ensure stable or growing populations," said Tom O'Shea, a USGS emeritus research scientist and the study's lead author. "The new trends in reported human-related mortality may not be sustainable."

Bats are long-lived, slow-breeding mammals that play vital roles in most of Earth's ecosystems. Bats are important pollinators and seed dispersers in tropical regions, and serve as the main predators of night flying insects in most parts of the world. Insect-eating bats are estimated to save farmers billions of dollars each year by providing natural pest control.

The researchers combed the scientific literature dating from 1790 to 2015 in search of annual mortality events involving more than 10 bats per event. They then divided these 'multiple mortality events' into nine different categories, spanning a variety of both natural and human causes. In the end, they found and categorized a total of 1,180 mortality events from all over the world, representing more than 200 years of recorded history.

Prior to the year 2000, intentional killing by humans caused the greatest proportion of mortality events in bats globally; the reasons varied with region, but bats were hunted for human consumption, killed as pests, to control vampire bats, and to protect fruit crops. Although the proportion of intentional killing reports declined in recent times, such acts continue in some parts of the world. Since the dawn of the 21st century, however, collisions with wind turbines worldwide and white-nose syndrome in North America are the primary reported causes of mass mortality in bats. In additions, storms, floods, drought, and other weather-related factors also historically caused mass mortality, and could increase in the future due to climate change.

Surprisingly, the authors did not find convincing evidence that bats regularly die in large proportion due to infectious diseases caused by viruses or bacteria. This finding comes at a time when increasing evidence points to bats as natural reservoirs of several viruses that cause disease in humans. Despite often being more social than other animals, bats may somehow avoid deaths from diseases that sweep through dense populations.



Scattered marine cave biodiversity data to find home in new database WoRCS, Project Report

Date: September 13, 2016 Science News

https://www.sciencedaily.com/releases/2016/09/160913124715.htm?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+sciencedaily%2Fearth_climate%2Fcaving+%28Caving+News+---+ScienceDaily%29

Considered "biodiversity reservoirs," underwater caves are yet to be explored with only a few thoroughly researched areas in the world. Furthermore, species diversity and distributional data is currently scattered enough to seriously hinder conservation status assessments, which is of urgent need due to planned and uncontrolled coastal urbanization.

(continued on page 5)

Thereby, a large international team of scientists, led by Dr Vasilis Gerovasileiou, Hellenic Centre for Marine Research, Greece, have undertaken the World Register of marine Cave Species (WoRCS) initiative meant to aggregate ecological and geographical data to eventually provide information vital for evidence-based conservation. Their Project Report is published in the open access journal *Research Ideas and Outcomes* (RIO).

With more than 20,000 existing records of underwater cave-dwelling species spread across several platforms, the authors have identified the need for a new database, where a standard glossary based on existing terminology binds together all available ecological data, such as type of environment, salinity regimes, and cave zone, as well as geographical information on the distribution of species in these habitats.

In their project, which has already produced a dynamic webpage, the scientists work within the context of the World Register of Marine Species (WoRMS) to add the already available records published in peer-reviewed outlets to reliable and case-by-case verified unpublished data, available from offline databases, museum collections and field notes, as well as the findings of the WoRCS thematic editors themselves.

Eventually, these presence records could be georeferenced for submission to the Ocean Biogeographic Information System (OBIS) and constitute an important dataset for biogeographical and climate change studies on marine caves and anchialine systems.

graphical and climate change studies on marine caves and anchialine systems.

To invite both the marine biology scientific communities and citizen scientists, WoRCS is meant to adopt a number of strategies.

Short and mid-term plans to engage the scientific community include development of common projects on poorly known marine and anchialine caves; projects that use WoRCS data; initiation of a fellowship programme to engage young researchers; and work with societies.

In the meantime, WoRCS is also intended to develop educational, citizen science and conservation activities, by creating products (e.g., maps, guides, courses) for the public, engage volunteers to encode data, and develop tools for MPA managers and the conservationist community.

"In particular, each time that a project about caves is funded, a work package or module or deliverable about WoRCS should be included to employ students and young researchers for data encoding, or to facilitate new types of data, or new links to other e-infrastructures and data tools," suggest the WoRCS thematic editors.



SPELEOLOGICAL AND CAVING TERMS BEGINNING WITH THE LETTERS 'L' AND 'M'

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

LABYRINTH
 LADDER
 LAKE
 LAVA CAVE
 LEAD

LEADER
 LEG
 LIGHT WATER
 LIMESTONE
 LITHIFICATION

LIVE CAVE
 LONGITUDINAL
 LUMINESCENT
 MAGNESITE
 MAGNETIC NORTH

MARBLE
 MEANDER
 METAMORPHIC
 MICROBOD
 MICROCLIMATE

MICROGOUR
 MINERAL
 MOONMILK
 MORPHOLOGY

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 October meeting will be
At the house of Art and Paula Wallace
Friday, October 14, 2016.



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