



C.O.G.nizance

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The April meeting will be Friday, April 14, 2017 at 7:30 p.m. The meeting will be at the home of Dale and Carol Town. 



Matt and Chris, post caving.

ANNOUNCEMENTS

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

*The April meeting will be Friday, April 14, 2017 at the home of Dale and Carol Town..

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 March 10, 2017

The March meeting was at the stately mansion of Anne Ault.

Attendees: Anne, Dale Amlee, Sue and John Bozeman, Matt Brasher, John Talbot, John Van Dyke, The Skillful Ogre.

The Honorable Dale Amlee, Assistant COG King, began the meeting at 8:05

OLD BUSINESS – We discussed the status of WNS in Oklahoma.

NEW BUSINESS –

- Dale Town will host the April meeting.
- Dale received a request from a Boy Scout troop in Norman that wants a presentation about gypsum caves. Those who volunteered to impart our knowledge unto the

curious youth were: Sue, Matt, and Dale.

- Sue asked for our o.k. to dump some unneeded COG caving gear that we use not, and verily did we give her our blessing
- Sue asked for our o.k. to delete unneeded COG correspondence which we didst also bless.

We talked about the upcoming cave trip to begin the exploration of "Idiot Cave" on March 25. We are all qualified to survey "Idiot Cave".

TRIP REPORT – those who finished the survey of Cherylbad Cave talked about their work that day of February 18.

TREASURER'S REPORT

We concluded the meeting at 9:03



TREASURER'S REPORTS

MARCH 2017 TREASURERS'S REPORT

INCOME		EXPENSES
Dividends	\$ 00.01	
Dues	\$ 39.00	
TOTAL	\$ 39.01	
CASH ON HAND	\$ 226.62	
CHECKING	\$ 228.12	
SAVINGS	\$ 2,138.88	
TOTAL	\$ 2,593.62	

Balance as of **04/3/2017**

PREPARED BY TREASURER JOHN TALBOT

TRIP REPORT

Trip Report -- Cherylbad Cave and Idiot Cave
March 25, 2017
Dale Amlee, Sue Bozeman and Jon Woltz
Written by Sue Bozeman

The old grotto notes had two caves in this area: Neighbor and Idiot. A long while back, we'd found Neighbor and explored a bit of it and just looked at the other little holes all around, poking in here and there.

Years later, we started surveying what had become known, at landowner request, as Cherylbad Cave -- the former Neighbor Cave.

To preserve the names, we now call the valley entrance that we use to enter the cave, Neighbor Entrance.

To preserve the names, we now call the valley entrance that we use to enter the cave, Neighbor Entrance. Now that the internal cave has been surveyed to completion, we're looking at all the outlier holes, big and little, and GPSing them in. We use those to get azimuth and distance from a known cave point equivalent to see if there is an obvious connection that might be dug from the outside. That is what we did to many of the external pits on this day.

One of the holes was sort of enterable. It had a small shelter entrance and a squeeze about 10 feet in. Jon took a look, got through the squeeze and Dale went to watch. As Jon's feet turned the corner, Dale stentored

As Jon's feet turned the corner, Dale stentored "SNAKE!" He succeeded in getting our attention. The immediate question was, "What kind?" Dale was not interested much in getting closer, but he said it was BIG and coiled.

"SNAKE!" He succeeded in getting our attention. The immediate question was, "What kind?" Dale was not interested much in getting closer, but he said it was BIG and coiled. Jon, in an absolutely calm voice, indicated that he might as well finish looking around since he was already past the problem. Ha. Amazing, but true. So he looked around and determined that we were not going any farther than where he was -- that it got lower and just

seemed to be breakdown everywhere with the water course, currently dry, headed under the mass. He slowly turned around and gently headed out with Dale carefully watching the snake to see if it was getting upset. It wasn't ... and Jon oooched out slowly, to safety.

We checked out several other pits, GPSing in their locations and then headed for Idiot Cave. It has been entered before, but always with the report that it's mucky in both directions once the pit was negotiated. This time, we were determined to survey it, muck or no muck.

Yes, there was muck at the bottom of the 16 foot, tiered pit, to a soft mud bank. The passage went up and downstream and while I got myself down and started a bit of preliminary drawing/sketching, Jon went upstream while Dale explored downstream. Dale got back first and we started surveying toward Jon. There is a broad water route that wanders from side to side with soft mud banks at the turns. The upstream entrance has fallen in and sealed itself from large critter entry. There is no glimmer of light anywhere. We surveyed to a dome area that Jon had measured as being 30 feet above water level. But there was no light visible there either. So we headed back to the pit and snacked a bit. It was 4:30 and we'd normally end our caving day about that time.

However, we knew that the downstream route was short. And we knew that the spring rains would be starting soon. And we just could not imagine what those rains would do to an already mucky passage. So, we determined to continue the downstream survey to the finish. By bridging puddles and sliding through rock clefts, Jon got around to a point where the stream sumped. We finished up the measurements and headed out. Idiot Cave is done.

We saw two salamanders, about a dozen velifer as singles and multiples and a frog. Nothing much to

Idiot Cave is 166.9 feet long.

recommend Idiot for a visit. It is the insurgence for Cherylbad, among the other pits in the area, but we'll never get through! Idiot Cave is 166.9 feet long.

LAMENT OF THE ICED CAVERS

Crawling between and over ice-covered rock
 Clinometer and compass in hand
 We shiver, measure, and record in book
 Left, right, up, and down, unable to stand

POTPOURRI

Fungus that Causes White-nose Syndrome in Bats Detected in Texas

The fungus that causes deadly white-nose syndrome (WNS) in hibernating bats has been detected in Texas for the first time. The syndrome has killed millions of bats in the eastern parts of North America, raising na-

tional concern. A coalition of groups in Texas is continuing work to monitor the spread of the problem and is seeking willing landowners who could help scientists locate and access bat caves.

The fungus was detected on species of hibernating bats in six North Texas Counties: Childress, Collingsworth, Cottle, Hardeman, (*continued on page 4*) King, and Scurry. The three species are tri-colored bat,

cave myotis, and Townsend's big-eared bat. This is the first detection of the fungus on both cave myotis and Townsend's big-eared bats. The Townsend's big-eared bat has an isolated subspecies in the East, the Virginia Big Eared Bat that has already tested positive for the fungus.

Samples were collected between Jan. 11 and Feb. 22 by biologists from Bat Conservation International (BCI) and Texas A&M University's (TAMU) Department of Wildlife and Fisheries Sciences and Institute of Renewable Natural Resources, and analyzed as part of a National Science Foundation-funded project led by University of California at Santa Cruz. Surveys of sites in seven other counties in 2017 did not detect the fungus — those counties are Coryell, Freestone, Leon, Panola, San Saba, Shelby, and Wheeler.

White-nose syndrome is caused by the fungus *Pseudogymnoascus destructans* (Pd) and is responsible for the deaths of millions bats in the United States and Canada. It has been expanding in all directions since its discovery in New York in 2007. In some states, there have been declines in winter bat numbers of greater than 90 percent.

"There is still hope for bats in Texas," said Jonah Evans, Texas Parks and Wildlife Department state mammalogist. "The fungus thrives in colder climates and it remains to be seen if WNS will have the same serious impacts in Texas as it has in northern states. Additionally, 20 of the 32 species of bats in Texas do not regularly hibernate and we are hopeful they will not suffer significant population declines. We will continue working with cooperating landowners and researchers to implement the best management tools available to conserve these species."

Bats play an important role in the ecosystem by consuming large numbers of insects. Recent studies have shown that the agricultural value of insect control by bats is \$1.4 billion annually in Texas alone. This value includes reduced crop loss to insect pests, reduced spread of crop diseases, and reduced need for pesticide application.

White-nose syndrome does not infect humans and is only known to affect hibernating bats. The fungus thrives in cold, humid environments and invades the skin of bats, disrupting their hibernation and depleting their fat stores. Migratory Mexican free-tailed bats, which roost in the millions at popular sites such as Bracken Bat Cave, the Congress Avenue Bridge in Austin, and Old Tunnel State Park, do not hibernate for long periods during the winter, and are not expected to be at high risk for the disease. Although there is no known cure for white-nose syndrome, wildlife disease experts are actively working on several treatments to help improve survival.

Today's announcement of Pd in Texas brings the total number of states with the fungus to 33. Of those states, 30 have been confirmed with white-nose syndrome.

"This discovery is significant because it occurs where the ranges of eastern, southern, and western bat species intersect, and two of these bats have extensive distributions in Central America and the West — beyond the current range of the disease," said Jeremy Coleman, national white-nose syndrome coordinator for the U.S. Fish and Wildlife Service, who leads a coalition of more

than 100 state, federal, and international governments agencies, academics, and non-governmental organization working to defeat white-nose syndrome. "While we don't know how new species of western hibernating bats will respond to the fungus, we are concerned about this move into the West."

While scientists are disappointed by the detection of Pd in Texas, its arrival is not unexpected. The fungus was detected in Oklahoma in 2015 and Arkansas in 2014. Texas Parks and Wildlife Department (TPWD) has closely coordinated with state and federal agencies as the fungus has spread toward the state. TPWD has worked with BCI to monitor Panhandle caves for the disease since 2011 and in 2015 TPWD funded a statewide project through TAMU aimed at early detection of the disease and describing bat populations before white-nose syndrome arrives.

Nationally, Coleman said the partners in the international response are working to develop tools to manage WNS and improve bat survival. Management solutions are in development to slow the spread of Pd to unaffected areas, improve the survival of bats in newly affected areas, and promote recovery of populations decimated by WNS. Treatment options that could be deployed in some affected areas in the future are also a research focus of the international response team.

TPWD is working with researchers at TAMU to survey caves with hibernating bats. They are asking for willing landowners for help locating and accessing bat winter roosts and caves for tracking the spread of the fungus. Those with knowledge of such sites are asked to contact TPWD at 512-389-4505.

Wildlife experts say cavers and landowners with caves can help prevent human assisted spread of the fungus by requiring cave visitors to abide by the decontamination protocols described at: <https://www.whitenosesyndrome.org/topics/decontamination>.

**Results from western OK WNS surveillance
From the OK Bat Cord. team:**

Project: Oklahoma Bat Coordinating Team Company: OK Bat Coordinating Team

Melynda Hickman posted a new message:



So sorry I have not posted this before but to relieve your minds after the news about Texas today, the lab analysis from 4 western caves came back **negative**. This includes Selman Cave System, Alabaster Caverns, Washita and Jester caves. I will send out the samples from Nescatunga Cave on Monday. There was a delay in surveying Nescatunga Cave so those samples were not in the batch I sent to the National Wildlife Health Center. Mel



Beneath a ceiling two feet above us.
It seems we've been here a month,
Every hour a heart-numbing year,
And think to ourselves: "dunce!"

And would talk but our mouths are numb,
Teeth chattering like a snare drum.
We encourage one other moaning "we're almost done"
Then suddenly without warning we are done.
Struggling up hill to our cars our overalls freeze.
None of us can move elbows or knees
So we stumble left, right, like cheap movie robots,
Fall in, turn our car heaters on to defreeze,

And drip great puddles as ice melts off us and falls.

By tomorrow noon we should be properly thawed
And hopefully not suffering too badly from freezer burn.
But this is the life of a caver: we never learn.

Next month we'll pack up and do this again.
All of us should be fully defrosted by then
So we'll open our survey book to a new page
And continue surveying this remnant of an ice age.
(c) 2017 Steve Beleu

Surprise discovery of Europe's first cave Fish Science News

[https://www.sciencedaily.com/
releases/2017/04/170403123548.htm](https://www.sciencedaily.com/releases/2017/04/170403123548.htm)
April 3, 2017
Source:Cell Press

Summary: Researchers have discovered the first European cave fish. A hobby cave diver first sighted the fish, a loach in the genus Barbatula, living in a hard-to-reach, underground water system in South Germany.

Researchers reporting in *Current Biology* on April 3 have discovered the first European cave fish. A hobby cave diver first sighted the fish, a loach in the genus *Barbatula*, living in a hard-to-reach, underground water system in South Germany.

"The cave fish was found surprisingly far in the north in Southern Germany," says Jasminca Behrmann-Godel of Germany's University of Konstanz. "This is spectacular as it was believed before that the Pleistocene glaciations had prevented fish from colonizing subterranean habitats so far north."

Their genetic studies of the fish together with knowledge on the geological history of the region suggest that the cave loach arose recently, within the last 20,000 years.

"It was only when the glaciers retreated that the system first became a suitable habitat for fish," says Arne Nolte from the University of Oldenburg/Max Planck Institute for Evolutionary Biology, Plön.

Despite that relatively short period of evolutionary time, the fish already show adaptations characteristic of "real" cave fish. As Jörg Freyhof from the Leibniz Institute for Freshwater Ecology and Inland Fisheries (IGB) Berlin explains, their eyes are much smaller, appearing almost as if curved inwards, and their color has all but disappeared. The fish also have elongated whisker-like barbels on their heads and larger nostrils than related fish living closer to the surface.

Joachim Kreisellaier first sighted the loaches in August 2015 while exploring the deepest parts of the Danube-Aach system, which can only be reached under partic-

ularly dry conditions in summer and fall. Noticing that the fish were "strange looking" to him, he snapped some photos and showed them to the hobby geologist and co-author Roland Berka, who contacted Behrmann-Godel, knowing her from former work. Study co-author and fish taxonomist Freyhof later confirmed that the fish could be showing cave adaptations.

"It took someone with the 'right eye' to realize that this might be something special and I believe that, on top of the right conditions and the difficult trip, this discovery depended on an exceptional diver like Joachim to realize in the first place that the fish might be special," Behrmann-Godel says.

"No more than 30 divers have ever reached the place where the fish have been found," Kreisellaier says. "Due to the usually bad visibility, strong current, cold temperature, and a labyrinth at the entrance, most divers do not come back again for diving."

But that didn't stop Kreisellaier. In November 2015, on another dive, Kreisellaier succeeded in catching a live specimen, which allowed the researchers to study its features in greater detail. The following year, he caught four more fish, enabling further study of the loach's form and genetics. Based on morphological and genetic comparison to surface fish caught upstream and downstream of the cave, the researchers report that the cave loaches are indeed an isolated population and the first known European cave fish.

The findings show that adaptation to subterranean habitats can be fast -- requiring only a few thousand years. They also come as reminder that "wonders of nature can turn up anywhere, even in your own backyard," Freyhof notes.

The researchers say they'll continue to study this new cave fish in more detail, including its genetic, genomic, and behavioral characteristics. Ultimately, they'd like to explore, through this newly discovered loach, the first steps toward life in caves.



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>

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At the home of Dale and Carol Town
Friday, April 14, 2017



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